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1898.

NEW SOUTH WALES.

VOTES

AND

PROCEEDINGS

OF THE

LEGISLATIVE ASSEMBLY

DURING THE SESSION

OF

1898,

WITH THE VARIOUS DOCUMENTS CONNECTED THEREWITH.

IN THREE VOLUMES.

VOL. II.

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1898.

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LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

VOTES AND PROCEEDINGS.

SESSION 1898.

(IN THREE VOLUMES.)

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OF
1898.

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1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

FISHERIES OF THE COLONY.
(REPORT OF COMMISSIONERS OF FISHERIES FOR YEAR 1897.)

Presented to Parliament, pursuant to Act 44 Vic. No. 26, sec. 69.

Printed under No 1 Report from Printing Committee, 30 June, 1898.

Report of the Commissioners of Fisheries for New South Wales on the Fisheries of
the Colony, for the year ending 1897.

Sir,

We have the honor to submit our Annual Report on the Fisheries and Oyster Fisheries of the Colony for the year 1897.

The constitution of the Board remains the same—Dr. J. C. Cox, whose term of office expired on the 19th October, having been reappointed President.

Finance.

The revenue for the year is £2,980 14s. 4d., a slight increase on last year's receipts, and £448 in excess of the expenditure, which amounted to £2,532 16s. 1d.

The revenue is obtained principally from license fees, rent on oyster-culture leases, and deposits on applications for oyster leases, and we think it could be considerably augmented if supervision could be given to the various oyster-producing waters in different parts of the Colony.

This would necessitate additional expenditure in the appointment of extra inspectors; but we consider the expense would be justified by the additional revenue that would be received in taking out oyster leases consequent upon a proper protection of Crown lands.

Official Staff.

During the early part of the year, it became apparent that the administration of the Department was in an unsatisfactory state, certain matters having arisen that called for a strict investigation.

At our request the Public Service Board held an inquiry into the working of the Department and the conduct of some of the officers, the result of which was the transfer of Mr. Smithers from the position of Secretary and Chief Inspector to that of an Assistant Inspector, and Mr. L. F. Mann, Clerk and Draftsman, to a position in the Survey Department.

The offices thus vacated were filled by the appointment of Mr. J. A. Brodie to the former position, in conjunction with the office of Visiting Magistrate to Lord Howe Island, and Mr. A. Reid as Clerk, while the drafting work is performed by a draftsman of the Survey Department, who visits the office as occasion requires to deal with the cases.

The Inspectorial Staff is still too weak to satisfactorily carry out the work of the Department, and could with advantage be further increased if the necessary funds were available.

Oyster-culture.

It is with much satisfaction that your Commissioners are able to report that the supply of oysters for the year has been greatly in excess of the number produced in 1896, and the largest return for the last ten years. This increase in the production is very gratifying, as it shows that notwithstanding the disease existing in some waters, the greater portion of the rivers are slowly but steadily recovering their former productiveness, and each year, as the conditions improve, we may expect a further improvement in the growth and cultivation of this mollusc, as the lessees are day by day gaining valuable experience in oyster-culture.

A comparison of the returns shows that 14,749 bags were consigned to market during 1897 as against 12,287 for the previous year, and detailed information as to the quantity taken from each river may be seen in Appendix "G."

There is a great difference in the condition of oysters grown in the various waters along the coast, some localities being more suitable to oyster-cultivation than others, on account of the salinity of the waters and the nature of the beds being more congenial to the life of the mollusc; and we find that the best grounds, and from which oysters have been taken in large quantities, are Camden Haven, Manning River, Cape Hawke, and Clyde River, the consignments from these waters being of excellent quality, and much sought after in the metropolitan market.

In addition to oysters locally produced, 2,367 bags were received from other Colonies; but, as a set-off against this importation, 3,022 bags were exported to Victoria, Tasmania, and West Australia.

There are considerable areas on unleased Crown lands eminently suited for oyster-culture; but for the want of cultivation the oyster does not thrive beyond a certain limit, and it only requires practical men to come forward and take up these waste lands, with a view to proper improvement, and the yield from ostreaculture would be sufficient to supply the whole of the demands of the local market, and to afford a surplus for exportation to the adjacent Colonies.

The issuing of leases for oyster-culture has been seriously delayed in consequence of the reorganisation of the Department, and the necessity to amend the form of lease so as to meet present requirements.

Certain new provisions were found necessary and were included in the new form of lease after Regulations had been issued (1) To enable the Governor to modify the boundaries of the areas leased upon certain conditions; (2) To resume the whole or any portion of the area leased for any public purpose as defined by the Lands for Public Purposes Acquisition Act or the Crown Lands Acts; (3) To determine that every lease shall be held subject to any conditions, stipulations, and covenants on the part of the lessee which may be imposed by any Act of Parliament hereafter to be passed dealing with the protection, cultivation, or sale of oysters.

It has been the custom to issue leases for a term of fifteen years, with a right of renewal upon application being made by the lessee during the twelfth year; but in view of the proposed new fisheries legislation, in which it is provided that ten years shall be the life of a lease, we have determined not to issue any further leases for periods exceeding such term.

Steps are now being taken for the completion of all outstanding applications, and in a very short time the majority of leases will be ready for issue.

A heavy fall of spawn was deposited in the waters of Camden Haven during the early part of the year, and also in the Hunter River, but in other waters the fall has been light.

It is usual to expect the spawn to be deposited in the warm weather, but it has been noticed in some waters to have set in slightly in the depth of winter, and in other localities the fall has been general all through the year.

The worm or mud disease is unfortunately still in our midst, notwithstanding the strenuous efforts made by some of the lessees to eradicate the evil.

The localities suffering most in this direction are the Hunter River, Port Stephens, Tweed River, Clarence River, Crookhaven River, and part of George's River.

Your Commissioners have given very careful consideration to this disease, and would point out to lessees that the most successful way to deal with the evil is to remove the whole of the affected oysters from the banks and deep waters to the shore for a thorough drying.

The shells should be allowed to dry in this manner for a few months, when it will be found that the worm is dead; the shells, clean and fit, to be placed in the same or other waters as spat collectors.

We would strongly urge oyster-cultivators to continually dredge and lift all oysters that are affected with the worm and treat the shells in the manner indicated; and if this practice is effectively carried out there is every likelihood of the disease being successfully fought.

The

The worm which causes all the destruction is said to spawn about November, and it is considered that the best time to carry out this work would be the months immediately prior to its spawning.

Every year we have reports that oyster-stealing from Crown lands for the purpose of sale is carried on, and the past year has been no exception. The waters that suffer most are those that have no local supervision, such as Port Stephens, Manning River, Clarence River, &c., and with the limited staff at our disposal we find it difficult to afford other than a casual protection to them.

On account of the deterioration of the Moreton Bay oysters through the mud disease that has now firmly established itself there, it is more than likely that Queensland will have very few oysters to put on the market for some time to come.

The effect of this will in all probability cause an increased demand for those produced in this Colony's waters with a corresponding increase in the price, and there is every likelihood of the next season being a very profitable one to oyster-cultivators.

There are very few places in the world better adapted to the growth and culture of the oyster than New South Wales, which has a favourable climate and numerous inlets and creeks with water of a strength eminently suited to the improvement of the bivalve; but notwithstanding these favourable conditions, it is to be regretted that in some localities the natural beds have been temporarily exhausted through the improvidence of the lessees, who strip their beds without any regard to future supply.

A considerable number of lessees are quite satisfied to let the spawn attach itself where it will, and take their chance of getting a share on their foreshores, instead of placing artificial spat collectors in the waters. If they would follow this course, they would obtain considerably more from a general spawning than at present, and the expense incurred in laying them down would soon be justified by the good results that would follow.

Fisheries.

The supply of fish is principally obtained from the home fisheries, from which the means of transit are quick and regular, and it is satisfactory to note that the supplies from some of the remote fishing grounds along the coast have considerably increased during the year.

The following list will show the number of baskets of fish sent to the Markets during the year:—

Lake Macquarie	...	...	12,676	Shoalhaven River	...	...	1,040
Tuggerah Lakes	...	...	10,372	Hastings River	...	...	729
Lake Illawarra	...	...	9,063	Bateman's Bay	...	...	1,821
Hawkesbury River	...	...	8,843	Bermagui	...	...	720
Clarence River	...	...	5,848	Richmond River	...	...	655
Brisbane Water	...	...	3,058	Macleay River	...	...	345
Ulladulla	...	...	2,638	Wagonga	...	...	171
Cape Hawke	...	...	2,463	Eden	...	...	80
Manning River	...	...	1,151				

This list does not include those caught at George's River and Port Jackson, which are taken direct to the market by the fishermen.

A considerable quantity of fish from Port Stephens, Hunter River, and Lake Macquarie are taken to Newcastle, and forwarded direct to the different country towns along the northern railway line, where it is distributed in time for the morning meal.

A reliable return of the fish sold at the Eastern Market, Woolloomooloo, cannot be furnished, as the Market Inspector is not in a position to supply the particulars, and the Inspector of Fisheries, who visits these Markets, cannot attend daily owing to the nature of his duties, which keep him frequently occupied during the night looking after closed waters.

It has been ascertained that 38,295 baskets of fish have been disposed of at Hudson's and McFadyen's Markets, Redfern, at varying prices, particulars of which are given in Appendix "F."

Although most of the grounds from which supplies are received are within easy access to the market by rail or steamer, fish frequently arrive in the warm weather in an inferior condition, and we would urge upon fishermen the advisability of gutting and packing the fish in ice in properly constructed boxes when they are forwarded to market. In this manner they would arrive in a condition satisfactory both to the vendor and the public, and would without doubt realise much higher prices than those brought to the market in their natural condition. The cost of providing this means of preservation would soon be covered by the increased prices obtained, and the quantity of fish condemned as unfit for food would be considerably reduced.

Crayfish have been obtained in large quantities from Broughton Island, mostly by Greek and Italian fishermen, who, when there is a glut in the market keep them alive in enclosed yards in certain portions of the harbour, and place them on the market in moderate quantities, so as to maintain a standard price.

Your

Your Commissioners would invite special attention to the practice of sending to market large quantities of female crayfish during the spawning season. This crustacean is considered a great delicacy when heavily charged with ova, and meets with a ready sale when in this condition, and the practice is that crayfish fishermen lay themselves out to market this crustacean when in full roe, and thereby prevent millions of ova being deposited in the waters.

If this short-sighted policy is continued it will eventually lead to the extermination of this species ; and as there is no provision in the present Fisheries Acts which will allow of protection being afforded to crayfish, we would urge upon the authorities not to lose sight of this matter when the question of introducing new legislation to deal with the fisheries of the Colony is being considered.

In the homes of the poorer classes fish is considered as a luxury to be availed of only occasionally, and it is reasonable to expect that any scheme which would result in the supply to these families and throughout the country of this article of food in a cheap and abundant manner would give great profit to any enterprising persons engaging in such an undertaking, as well as being a national gain to the community at large.

This is a matter for private enterprise, and it is hoped some company will be shortly formed with this end in view.

The principal sources of supply are:—Lake Macquarie, Tuggerah Lakes, and Lake Illawarra, and to conserve these fields to the greatest possible extent we have adopted the practice of closing against the use of fishing-nets for a period of two years all the tributaries of these waters, which in addition to the existing closures of the channel entrances afford every facility for the young fry to attain a mature state, and also for the free and undisturbed ingress of schools of fish from the deep waters of the ocean.

The beneficial result of exempting these waters from the use of fishing-nets has made itself apparent, and it is gratifying to record that many of the professional fishermen are agreed that these closures, though restricting them in their field of operations, are quite necessary for the protection of the young fish and the continuity of the supply.

Amateur line-fishing is very extensively carried on in those waters within easy access of the metropolis, and it is greatly to be deplored that vast numbers of immature fish, mostly whiting and bream, are killed every week during the fishing season by line-men.

It is no exaggeration to state that over 500 dozen of these undersized fish are taken every week during the summer months, and we think it only right to point out that amateur line-men are, to a great extent, responsible for the scarcity of full-grown fish.

Several large shoals of fish have been observed travelling along the coast in a northerly direction, particulars of which are as follows:—A species of whitebait in February; maray or pilchard in April and September; sea-mullet in February, March, April, and May; salmon in October and November; sea-garfish in January, March, April, and May; bream in May, June, July, and August; black-fish in April; whiting in January, September, and December.

We have to record that the usual capitation allowance has been paid for the destruction of forty-one sharks during the year. They are in all cases measured by a responsible officer, who gives a certificate of destruction before the reward is paid.

Inland Fisheries.

Practically there is very little benefit derived from the inland fisheries; a few cod are sent to Sydney occasionally, but the bulk of fish are caught in the Murray River, and find their way to the Melbourne market *via* Moama and Koondrook.

19,044 lb. were so exported to Victoria, and this is over 10,000 lb. in excess of the quantity so exported during 1896. The increase is no doubt due to the protection that was afforded to a portion of these waters by closing them against the use of fishing-nets for a period early in the year.

The bulk of fish now obtained here are caught on long lines stretched across the river with numbers of baited-hooks attached.

There is no regular fishing carried on at Lake George, although the waters are said to be full of fish. Occasionally cod of 50 lb. weight are caught, but they do not take the bait freely, owing to the plentiful supply of fish-food in the lake. The total catch recorded for the year does not exceed 500 lb.

Representations having been made as to the desirability of closing certain portions of the inland waters against the use of fishing-nets, we, after satisfying ourselves as to the necessity for such protection, recommended the closure, for a term of five years, of portions of the Cudgegong River, flowing past the town of Mudgee, and the Bogan River, fronting the town of Nyngan. This is in addition to numerous other closures in other localities in past years.

Owing to the small staff of Inspectors at our disposal, we are unable to afford any supervision to the Inland River Fisheries, and were it not for the efforts of the police, to whom we are much indebted, there is no doubt much illegal netting would be carried on.

Fish

Fish Acclimatisation.

As in former years, a large quantity of trout ova was received from the Acclimatisation Society at Wellington, New Zealand, consisting of 50,000 brown trout (*Salmo fario*) and 50,000 rainbow trout (*Salmo irideus*).

About 10 per cent. of the *S. irideus* were found to be lifeless on the arrival of the steamer; but the majority of those remaining were successfully hatched out, and proved to be a very lively and healthy lot.

A great percentage of the *S. fario* contracted black ophthalmia and blue swelling of the yolk sac, and their numbers were reduced considerably by this disease.

Notwithstanding these adversities, several thousand were reared at the hatching-house, and distributed in the fry stage to the following waters, viz.:—Macquarie, Fish, Campbells, Winburndale, Burrie, Narranarra, Conjola, Pambula, Towamba, Enderick, Corang, Scotcheys, Cudgegong, Belabulah, Coombing, Lachlan, Middle Arm, Quidong, Bombala, Delegate, Upper Queanbeyan, Moonbah, Yarrangobilly, Thredbo, Cottage Creek, Black Lake, Cathcart, Eucumbene, Buckley's Crossing, Boloco, Snowy, McLachlan, Crackenback, Jindabyne, Wollombi, Mooki, Kentucky, Armidale, Moredum, Molong, Pudman Creek, Turon, Bell, Capertee, Wollondilly, Dingo Creek, Wallerawang, Burrowa, Bowning, Ourimbah, Lithgow Water Supply Dam, and Breeding Ponds, Mittagong.

Three hundred young trout have been retained in the hatching-ponds, and it is the intention of your Commissioners to keep them till they reach the yearling-stage, when they will be liberated in suitable streams.

The rainbow trout appears to be the most suitable species of the *Salmonidæ* yet introduced into this Colony; they are hardy and healthy, and better able to thrive in the changeable temperatures of our inland waters than the *S. fario*, and it is our intention to secure a further supply of this species next season.

Trout may now be said to be thoroughly acclimatised to the cooler waters of New South Wales, and from authentic reports furnished by residents in the various country districts where they have been liberated they are said to be thriving remarkably well.

In the New England waters and the tributaries of the Snowy River, trout of several pounds' weight have been seen to rise clean out of the water, and there is no doubt these are some of the fish or the progeny of those liberated by your Commissioners.

Great interest is taken by many residents in the country districts in the acclimatisation of this valuable species of the *Salmonidæ*, and we are indebted to many sportsmen for the efforts that have been frequently made to conserve the fry when liberated.

The hatching-ponds at Prospect are in a satisfactory condition; the work in connection with them has been ably carried out by Assistant Inspector Glading during the process of hatching and distribution.

The success of the hatching depends greatly on the water-supply arrangements, and we are pleased to state that the Engineer for the Prospect Waterworks has afforded every facility to ensure a regular water-supply to the hatching-house.

Attention is invited to the accompanying Reports of the Chief Inspector and the Assistant Inspectors on the fisheries under their charges, and the tabulations in the appendices, from which much detailed information will be gathered.

In concluding our Report we would again earnestly express our hope that an early opportunity will be taken to introduce new legislation with a view to remedying the evils existing under the present Fisheries Laws which we have frequently pointed out render it impossible for us to administer this important Department in a satisfactory manner.

We have, &c.,

JAMES C. COX,
J. R. HILL,
S. H. HYAM,
W. R. CAMPBELL,
FRANK FARNELL.

APPENDICES.

A.

REVENUE of the Fisheries Department for the year ending 31st December, 1897.

	£	s.	d.	£	s.	d.
Fishermen's licenses, 672 at 10s.	336	0	0			
" " 191 at 5s.	47	15	0			
Fishing-boat " 299 at £1	299	0	0			
" " 79 at 10s.	39	10	0			
					722	5 0
Deposits on applications	440	0	0			
Deed fees	24	0	0			
Stamp duty	3	0	0			
Transfer fees	50	0	0			
Rent on oyster leases	1,707	5	4			
Fines and forfeitures, &c.	34	4	0			
					2,258	9 4
Total					£2,980	14 4

EXPENDITURE of the Fisheries Department for the year ending 31st December, 1897.

	£	s.	d.
Salaries	1,768	5	7
Contingencies	764	10	6
	£2,532	16	1

B.

SCHEDULE of Applications for Oyster Leases received during 1897.

Name of Applicant.	Area in yards.	Locality.	Name of Applicant.	Area in yards.	Locality.
Dennis, Walter John ...	500	Tuggerah Lake.	Gibbins, F. J.	600	Hunter River.
Paddon, Thomas	200	Evans River.	Do	600	do
Mackinnon, Ewen.....	100	Richmond River.	Do	400	do
Gray, Robert.....	200	do	Do	200	do
Mackinnon, Ewen.....	100	do	McMillan, J.	100	Durras Lake.
McMillan, John.....	100	Bermagui.	Latta, W.....	100	do
Ross, Alexander	200	Clarence River.	Do	200	do
Dick, Thomas & Chas. E.	200	Hastings River.	Do	100	do
Dick, John Stuart.....	100	do	Gibbins, F. J.	200	Camden Haven.
Covell, S., Marshall, G.,	500	Hawkesbury River.	Do	100	do
Izzard, J., & Ongley, W.S.			Do	400	do
Do do	500	do	Do	100	do
Do do	2,000	do	Comino, Y.	200	Wagonga River.
Do do	500	do	Ross, A., and Davies, J.	200	Clarence River.
Do do	100	do	Cook, A.	100	George's River.
Do do	500	do	Elliott, W.	200	Wallis Lake.
Do do	300	do	Rush, W. C.	100	do
Hungerford, M. O.	200	Pambula River	Elliott, W.	100	do
Severs, Charles	100	Yowaka Creek.	Do	100	do
Twyford, J. W.....	200	Nelson's Lake.	Davis, J.	300	Nambucca River.
Woodward and Moriarty	200	Karuah River.	Haley, P.	200	Manning River.
Do do	100	do	Comino, A.	200	do
Do do	200	do	Haley, P.	100	do
Do do	400	do	Do	100	do
Do do	200	do	Woodward and Moriarty	100	do
Do do	200	do	Do do	100	do
Do do	200	do	Do do	100	do
Evans, James.....	100	do	Do do	100	do
Johnson, P. T.	100	Port Stephens.	Do do	100	do
Do	200	do	Cause, W. G.	200	do
Smith, C.	200	do	Ongley and Marshall...	200	do
Do	200	do	Do do	400	do
Cromarty, J.	400	do	Comino, A.	200	do
Thoroughgood, T.....	500	do	Southwell, J. A.	100	do
Holdom, P. J.	300	do	Do	200	do
Do	200	do	Shoosmith, W. H.	300	do
Dark, S.	500	do	Do	200	do

SCHEDULE of Applications for Oyster Leases received during 1897—*continued.*

Name of Applicant.	Area in yards.	Locality.	Name of Applicant.	Area in yards.	Locality.
Shoesmith, W. H.	100	Manning River.	Holdom, P. J.	300	Port Stephens.
Ongley, W. S.	100	Narrabeen Lagoon.	Comino, Y.	300	do
Do	100	do	Elliott, W.	200	Wallis Lake.
Do	100	do	Kent, T. J.	400	Wapengo Lake.
Do	100	do	Dick, E. H. and T.	200	Hastings River.
Woodward and Moriarty	100	Manning River.	Jennings and Denham	200	do
Do do	100	do	Holmes, E. L.	1,100	Port Stephens.
Do do	100	do	Comino, Y.	1,000	Manning River.
Engel, G. A.	300	Port Stephens.	Ongley, W. S.	200	do
McMillan, J.	600	Durras Lake.	Do	200	do
Do	200	do	Do	200	do
Shoesmith, W. H.	48	Manning River.	Do	100	do
Hunter, Robert	400	Wapengo Lake.	Do	200	do
Unicombe, A. G.	500	Manning River.	Payne, J.	200	do
Davis, G. A.	400	Brisbane Water.	Cheyne, G.	500	Richmond River.
Selmon, F.	800	George's River.	Paddon, T.	175	Evans River.
Southwell, J.	200	Manning River.	Elliott, W.	200	Wallis Lake.
Latta, W.	1,200	Durras Lake.	Do	200	do
Sproates, G.	100	Wapengo Lake.	Want, J. H.	500	Port Hacking.
Haiser, G.	200	Crookhaven River.	Heaton, A. E., and Owen, H.	500	Pitt Water.
Do	400	do	Waddingham, H.	500	Port Stephens.
Maclean, R.	200	Wagonga River.	Comino, A.	100	Manning River.
Laman, W. E.	300	Port Stephens.	Basser, P. D.	700	Womboyne River.
Smith, C.	300	do	Waddingham, H.	300	Port Stephens.
Comino, Y.	100	do	Pothier, A. J.	500	Richmond River.
Rush, W. C.	200	Wallis Lake.	Davies, G. A.	100	Brisbane Water.
Do	200	do	Shoesmith, W. H.	100	Manning River.
Lazarus, E.	900	George's River.	Waddingham, H.	600	Port Stephens.
Do	500	do	Garner, E.	500	do
Rush, W. C.	100	Wallis Lake.	Korsman, J. C.	500	do
Jennings and Denham	100	Port Macquarie.	Moseley, C.	500	Bellinger River.
Witchard, G.	600	George's River.	Hanley, N.	100	do
Comino, A.	100	Manning River.	Lange, F.	200	Port Stephens.
Makin, W.	100	Wagonga River.	Laman, H.	200	do
Lazarus, E.	500	George's River.	Ravel, G.	300	Wallis Lake.
Woods and Seymour	500	Mooney Mooney Creek.	Gibbins, F. J.	44	Camden Haven.
Newton, H. M.	100	Manning River.	Do	100	do
White, T.	400	George's River.	Hannell, P. W.	1,000	Port Stephens.
Gibbins, F. J.	500	Hunter River.	Rush, W. C.	500	Wallis Lake.
Do	300	do	Woodward and Moriarty	300	do

C.

RETURN showing the number of baskets of Fish sold at the Redfern Markets during the year 1897.

Markets.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
Hudson's	1,122	2,320	2,442	3,079	2,767	2,786	2,599	2,643	2,454	2,100	1,995	1,726	28,038
McFadyen's	739	600	997	1,202	1,108	600	494	649	719	928	663	1,563	10,262
Total	...	...	...	...	...	...	...	...	...	...	...	...	38,295

D.

RETURN showing the quantity of Fish exported from the Murray River *via* Moama and Koondrook during 1897.

	lb.		lb.
January	1,344	August	Nil.
February	2,500	September	Nil.
March	1,520	October	360
April	5,420	November	3,600
May	2,620	December	1,680
June	Nil.		
July	Nil.	Total	19,044

E.
RETURN showing Range of Prices obtained for Fish at the Fish Markets, Redfern.

Name of Fish.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Schnapper, per dozen .....	.....	.....	.....	.....	2/6 to 18/	.....	16/ to 18/	20/ to 60/	12/ to 30/	9/ to 24/	9/ to 30/	.....
Flathead „	1/3 to 3/	1/6 to 6/	2/ to 8/	2/ to 7/	2/ to 7/	2/ to 6/	2/ to 6/	3/ to 12/	2/ to 12/	1/6 to 9/	1/ to 8/	1/6 to 11/
Whiting „	2/ to 2/6	1/6 to 2/9	1/ to 4/3	1/3 to 5/6	1/3 to 3/6	1/ to 3/6	1/6 to 4/3	1/9 to 6/	1/6 to 5/6	2/3 to 4/3	2/ to 4/	1/3 to 5/6
Flounder „	1/ to 2/6	1/ to 3/	2/ to 4/	1/6 to 3/	1/ to 2/6	1/ to 2/3	1/ to 2/6	1/ to 3/6	1/6 to 2/6	9/ to 1/9	1/ to 3/	1/3 to 2/6
King-fish „ .....	.....	12/	.....	.....	.....	.....	.....	24/	18/	18/	18/ to 24/	.....
Jew-fish „	3/ to 40/	6/ to 30/	3/ to 48/	3/ to 102/	2/ to 60/	4/ to 50/	3/ to 63/	2/ to 42/	3/ to 72/	2/6 to 5/	2/6 to 7/6	3/ to 10/
Mullet (sea) „	1/ to 2/6	1/4 to 2/3	1/4 to 2/6	1/3 to 2/9	2/ to 3/9	.....	.....	.....	.....	.....	.....	.....
„ (sand) „	1/ to 1/6	1/ to 1/6	9/ to 2/3	1/ to 2/9	6/ to 1/3	6/ to 3/6	1/3 to 4/	9/ to 4/6	2/ to 4/	9/ to 4/9	1/ to 2/6	9/ to 4/6
Eels „	3/ to 4/	2/ to 6/	2/ to 3/	2/ to 3/	2/ to 4/	2/ to 3/6	1/6 to 3/	2/ to 5/	2/ to 4/	1/6 to 4/	1/6 to 3/6	2/ to 4/
Bream „	2/ to 4/	2/ to 4/	1/ to 5/	1/ to 5/3	1/ to 5/	1/3 to 4/3	1/6 to 6/	1/9 to 8/	1/9 to 6/	1/6 to 3/8	2/ to 6/	2/ to 7/
Garfish, per basket	10/ to 15/	10/ to 15/	9/ to 16/	10/ to 18/	10/ to 16/	10/ to 18/	12/ to 18/	12/ to 20/	13/ to 20/	12/ to 15/	10/ to 12/	12/ to 18/
Black-fish „	4/ to 6/	3/ to 4/6	4/ to 4/6	4/ to 7/	5/ to 7/	5/ to 7/	5/ to 8/	6/ to 10/	4/ to 8/	8/ to 10/	6/ to 8/	6/ to 7/
Tailor „	4/ to 6/	4/6 to 6/	3/ to 4/	3/6 to 9/	5/ to 6/	5/ to 6/	6/ to 7/	6/ to 9/	4/ to 6/	5/ to 7/	6/ to 7/	6/ to 9/
Crayfish, per dozen	6/ to 8/	4/6 to 30/	8/ to 9/	8/ to 10/	7/6 to 9/	8/ to 9/	8/ to 9/	7/ to 8/
Prawns, per bushel	15/ to 20/	20/ to 40/	5/ to 90/

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F.

RETURN showing the Number of Bags of Oysters taken from Tidal Waters of the Colony during the year 1897.

Locality.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Tweed River	113	...	...	...	...	...	...	...	...	25	41	17	196
Richmond River	74	130	53	83	2	...	...	2	4	7	39	57	451
Evans River	80	48	27	37	5	...	...	...	...	31	48	71	347
Bellinger River	20	35	14	2	...	...	...	8	51	31	32	26	219
Hastings River	79	39	36	...	69	...	...	23	32	40	52	45	415
Manning River	275	358	313	191	124	66	36	42	84	92	155	248	1,984
Camden Haven	130	130	160	160	100	100	130	100	160	130	130	134	1,564
Cape Hawke	186	189	179	226	244	238	254	232	314	277	276	313	2,928
Port Stephens.....	235	142	174	154	139	215	193	222	333	232	235	397	2,671
Hunter River.....	133	133	133	100	100	100	166	166	166	133	133	141	1,604
Brisbane Water .....	...	1	...	...	...	10	9	1	8	13	9	26	77
Hawkesbury River.....	63	64	61	32	43	45	41	58	65	72	67	72	683
Narrabeen	13	...	...	...	...	...	...	...	...	...	...	...	13
George's River and Botany ...	19	13	33	16	55	18	37	36	61	99	53	66	506
Shoalhaven River	4	3	7	2	2	...	...	...	...	3	...	...	21
Clyde River.....	93	239	170	103	77	18	8	11	14	22	42	56	853
Tuross River .....	...	...	...	10	...	...	...	...	...	...	...	...	10
Womboyne River .....	...	...	...	...	...	...	...	...	...	...	10	...	10
Crookhaven River	14	24	14	17	14	...	...	...	...	7	21	18	129
Curranbene River .....	...	...	4	...	...	...	...	...	...	...	...	...	4
Bateman's Bay .....	...	20	41	...	...	...	...	...	...	...	...	...	61
Wapengo Lake .....	...	1	1	...	...	...	...	1	...	...	...	...	3
Totals.....	1,531	1,569	1,420	1,133	974	810	874	902	1,292	1,214	1,343	1,687	14,749

G.

RETURN showing the number of Bags of Oysters imported into New South Wales during 1897.

Imported from	No. of Bags.
Queensland.....	1,530
New Zealand	833
Tasmania.....	4
Total	2,367

H.

RETURN showing the number of Bags of Oysters exported from New South Wales during 1897.

Exported to	No. of Bags.
Victoria	2,622
Tasmania.....	129
Western Australia.....	271
Total	3,022

I.

PARTICULARS of Prosecutions for infringements of the "Fisheries Act of 1881" and the "Oyster Fisheries Act of 1884," during the year 1897.

Name.	Nature of Offence.	Result of Prosecution.
M. Valles	Using an unlawful net.....	Net confiscated.
L. Savaris	" "	" "
G. Lane	Fishing in closed waters	Fined £2 and 5s. costs.
V. Carinagie	Using an unlawful net.....	" £2 and 5s. 9d. costs.
J. and G. Piper	Using an unlawful net, and fishing without licenses ...	Net confiscated, and fined 1s. on each charge.
J. Johnson	Taking oysters off Crown Lands for sale	Fined £5 and 5s. 6d. costs.
B. Coombe	Using an unlawful net.....	Net confiscated.
T. McBride and G. Piper.....	" "	" "
J. Hunt	Carrying oysters in unbranded bags on a steamer	Fined £10 and 5s. 6d. costs.
John Douglass, junr.	Fishing without license	" 5s. and 5s. 6d. costs.
E. Douglass	" "	" "
W. Martin	" "	" "
J. Johnson	Consigning undersized oysters for sale	" 10s. and costs.
A. Mollo	Exposing undersized fish for sale	" "
C. Stein	Consigning " "	" 10s. and 4s. 10d. costs.
A. Dennis	" " " "	" 10s. and 5s. 6d. costs.
V. Cossimato	Exposing " "	" 5s. and 6s. 2d. costs.
J. Douglas	Consigning " "	" 10s. and 5s. 10d. costs.
W. Salisbury	Fishing without a license	" 5s. and 4s. 10d. costs.
K. Howarth	" " " "	" " " "
P. Kirkaldy	" " " "	" 10s. 6d. and 5s. 6d. costs.
S. Hibbs	" " " "	" " " "
H. and E. Gogerly.....	" " " "	" 2s. 6d. and 4s. 10d. costs each
J. Gibbs	Fishing in an unlicensed boat	" 5s. and 4s. 10d. costs.
C. Alick	Neglecting to mark leased areas.....	" 20s. and 5s. 6d. costs.
J. Johnson	Neglecting to report consignments of oysters	" "

ILLEGAL nets seized for which no owners could be found.

Net of illegal mesh found in a boat in Woolloomooloo Bay	Forfeited.
Net found stalled in closed waters at Mullet Creek, Hawkesbury	do
Meshing-net set in closed waters at Brisbane Water.....	do
Illegal net seized at Womboyne River.....	do

Fisheries Inspectors' Reports.

Sir,

Department of Fisheries, Sydney, 1 March, 1898.

I have the honor to furnish a report on the Home Fisheries of the Colony for the year 1897.

Port Jackson.

Fish have been fairly plentiful in the harbour, notably mullet, garfish, and bream, but in the Parramatta and Lane Cove Rivers they were very scarce at the latter end of the year. The closure of these waters will, however, be the means of replenishing them with plenty of fish.

Prawns were numerous at the latter part of the year, and in the upper parts of Parramatta River they reached a very large size.

There are a number of Italians fishing for prawns, and the majority use a class of net which, while it does not come within the provisions of the Sunk Nets Act, has practically the same disastrous effect as a sunk net; it is a net with a deep bunt, and is sunk below the surface, and dragged along the bottom in such a way as to scrape the bottom clean. They do a lot of injury to the feeding-grounds, but nothing can be done to prevent their use.

There are about seventy fishing-boats, with an average of two men to each boat; but a number of them travel about to the waters north and south when the fish are more plentiful than here.

Assistant Inspectors Hellings and Glading have been very energetic in the performance of their duties in the main portion of the Harbour and in Middle Harbour, and report that the fishermen generally keep well within the law. Assistant Inspector Smithers is generally engaged in looking after the Parramatta and Lane Cove Rivers, both of which were closed in October last for a period of two years. These closures did not meet with the approval of the local fishermen at the time they were closed, but they seem to be now satisfied that the closures were necessary for the recovery of the fish supply and the protection of the young.

The quantity of fish taken from Port Jackson cannot be given correctly, as they are taken direct to the Fish Market from the boats by day and night, and there is no means of ascertaining this information.

Lake Illawarra.

This is one of the most important of our fisheries, as well as being invaluable as a breeding-ground and nursery for fish. All kinds of fish abound here, and bream, mullet, flathead, garfish, and whiting have been caught in large quantities by the local fishermen.

Over 10,000 baskets of mixed fish were taken from this lake during the year, and as it is so conveniently situated as regards transit to the metropolitan markets, it may be looked upon as one of the most valuable of the home fisheries.

The tributaries of the lake were closed against net fishing for a period of two years from the 14th October, and it is confidently expected that this will have a valuable bearing on the future supply of fish to the lake.

The average number of fishermen working during the year was thirty-two, with about sixteen boats.

Lake

Lake Macquarie.

This lake continues to be the most productive of our fishing-grounds, as over 12,000 baskets of fish were sent to market, which just about equals the previous year's record.

A good proportion of the fish caught here are consigned to the proprietor of the ice-works at Newcastle, who supplies all the principal northern towns with fresh fish, and many country families are thus enabled to enjoy this article of food for their morning meal in as fresh a condition as those distributed in the city.

On account of the great quantity of fish in these waters they are very much worked by fishermen, and the temptation to evade the law by netting in closed waters seems to have been very great, as the assistant inspector is continually kept going to protect some of the closures.

It is an exceptional thing to find schnapper in any of the lakes in quantities; but in May and June last eighty-two baskets of this class of fish were caught in three hauls at Wangi Wangi Point.

The lake is not oyster-bearing; there are a few stunted ones in isolated spots, but they do not grow well.

George's River.

Fish of all kinds were in abundance during the early part of the year, but the heavy freshes later on drove great numbers of them away.

Fishermen had great difficulty in following their avocation successfully on account of the immense quantity of blubber during the summer months, and frequently had to lift their nets and let the fish escape, through their inability to haul them to the shore when so freighted.

Woronora River, which has been closed the whole of the year, was alive with fish, and is a constant source of supply to the lower waters of George's River.

During the latter part of the year and following the close season prawns were very abundant, and some very large specimens have been netted at Lady Robinson's Beach.

There are over 10,000 yards of foreshore under oyster lease, and the majority of the leases are well stocked. The deep-water beds are badly affected with the worm disease, the same that exists in the Hunter River, but fortunately this does not extend to the bankers.

Hawkesbury River.

Fish have not been so plentiful in these waters as formerly, and the scarcity is probably due to the great numbers of immature fish that have in the past been killed by the pretty general use of the garfish net, which is most destructive to young fish, and the great quantities of undersized fish caught by amateur line fishermen.

Several of the creeks leading into the main river have been closed against net-fishing, and it is expected that the protection thus given will have the effect of increasing the supply in the open waters.

About ninety-four fishermen are following their occupation on these waters, and their catches are forwarded to the Sydney markets both by rail and steamer.

There are very few deep-water oyster-beds, and the bulk of oysters removed from this river are from the rocky foreshores, which are eminently suitable to their growth.

Their condition has been very good, and they always command a good price in the market.

The foreshore oysters are all clean and healthy, but some of those below low water-mark have the worm disease.

This disease has affected some of the deep-water oysters for some years, but it does not appear to be spreading.

A good deal of pilfering off Crown lands has been going on during the year, and can be very easily carried on owing to the rugged and precipitous foreshores which afford excellent cover to the illegal oysterers. It is not unusual for several men to be taken out in a boat and landed on different points with cans and bags, and when they are disturbed by the approach of the inspector they disappear into the hills, where they hide until the inspector leaves the locality.

Special efforts have been made to put a stop to this practice, and some convictions have resulted.

Tuggerah Lakes.

This is a very valuable fishing-ground, and comes next to Lake Macquarie as regards the quantity sent to market.

The entrance to the lake was open from April, and remained so during the year.

Several large shoals of mullet, bream, and black-fish came in from the sea, and through the closure at the channel entrance were enabled to have undisturbed access to the lake waters.

Steps have been taken for the resumption of a site for an inspector's residence at the channel entrance, and it is hoped that it will be speedily carried out so that the ground may be enclosed.

The bar at the mouth of Wyong Creek has become so shallow that it is with difficulty that the fishermen can pilot their boats into the creek to catch the steamer which comes down twice daily.

A channel should be cut to admit of boats passing freely in and out, and would be a great boon to the professional fishermen and visitors.

Unless the Government carry out the work, I do not see how the necessary deepening of the entrance can be accomplished, as the fishermen have not the time or implements to effect it.

Brisbane Water.

Netting was carried on so vigorously that the natural supply became exhausted, and the whole of these waters were closed from the 7th September, 1897, till the 30th April, 1898.

In the early part of the year fish were plentiful, and many thousands were caught by amateur line-men, who in the season, when the sport is good, visit Woy Woy in great numbers. Thousands of bream and whiting of an unmarketable size are caught by amateurs, who as a rule do not return them to the waters, and it is to a great extent due to this wholesale destruction of young fish that there are so few of a large size in these fine waters. Professional fishermen, by the use of garfish nets, also caused the destruction of numbers of young fish, which were in many cases left on the beaches.

The local people are continually agitating for the permanent closure of these waters against net-fishing, on account of the number of visitors who would then frequent them, and thus be a means of support by circulating money in engaging boats and dwelling-houses.

Hunter

Hunter River.

As a fishing-ground this river is not worked to any great extent, as the supply is small in comparison with the other waters adjacent to the metropolis.

There are about sixteen fishermen engaged here, and the few fish they get are disposed of in Newcastle.

Prawns have been plentiful at times during the year, but they are very small.

The oysters are still very much affected with the worm disease, notably in the back channel and round Sandy Island. Mr. Gibbins has pretty well all the oyster-bearing portion under lease, and is doing good work in trying to clean the river of the disease. He has dredged several thousand baskets of affected shells, and placed them on dry land, where they are undergoing a process of bleaching. Three thousand baskets of dried shells have been taken to Camden Haven to be laid down for catching spat in those waters, and there is no doubt that the lessee will be amply repaid in the near future for the trouble and expense he has been put to in this direction.

Port Stephens.

The class of fish caught here is equal to those in any of the Home Fisheries, and frequently one hundred baskets are sent to Newcastle by the steamer Gosford, which boat trades daily to Newcastle from Nelson's Bay.

Lobsters also in the season are caught in immense quantities.

The oysters are rather poor, and a good many have the worm disease.

For the want of an inspector in these waters, there is a great deal of oyster-stealing, both from Crown lands and off leases, and although special efforts have been made to check this illegal work, the practice still continues.

The police have been very active in trying to bring the parties to justice, and several convictions have resulted.

It would be a great advantage to the Department and the lessees if some permanent supervision could be established over these waters, and would be the means of securing additional revenue for oyster-culture leases.

Cape Hawke.

From reports furnished by Mr. Inspector Massingham, it appears that fish of all kinds have been very plentiful; but on account of the irregular steamship arrangements, tons of fish have been thrown away at times when the steamer did not arrive up to time.

Owing to the shallowness of the water on the bar, only small boats can enter, and occasionally they cannot get across, so it is not to be wondered at that these crafts are frequently delayed by bad weather and from other causes.

Vast quantities of oysters are consigned from Wallis Lake, and are of a very fine quality; they are quite free from the disease, and the fact of their being so is due to the action of Inspector Massingham, who promptly caused the removal of a number of diseased oysters which were laid down on one of the leased areas.

From the different rivers north of Cape Hawke fish have been regularly sent to market during the winter months, but very few in the summer.

On the whole, the fishing industry may be said to be in a satisfactory state; but fishermen would serve their own interests and those of the public if they made a practice of packing their fish in ice during the hot weather, as by doing so they would reach the market in prime condition, and realise prices which would repay them for the cost of the ice.

I have, &c.,

J. A. BRODIE,
Chief Inspector.

Sir,

Forster, 15 January, 1898.

I have the honor to submit Report of the Net and Oyster Fisheries of Wallis Lake for the year 1897:—

Net-fishing.

With reference to the spawning of the different kinds of fish which are the most abundant in these waters, from personal observation I may state that mullet are the most plentiful, and, during the months of March and April, immense shoals travel northward along the coast, and enter the inlets on their way, to deposit their spawn on the muddy and weedy bottoms.

Black-fish are also in abundance, particularly in the lake, where there is abundant feed and shelter for spawning, which takes place in April.

Bream are also most plentiful during this season, at which time they enter the inlets in shoals, and deposit their spawn on hard and uneven bottoms, such as oyster deposits. I quote this from experience while at the Clarence, where they are in full-roe immediately after the sea-mullet go out.

Whiting enter the inlets during the warm summer months, and are then in full-roe, and shed their spawn on sandy bottoms; they, like the bream, frequent the shelly bottoms; their fry are found in these places in large numbers.

Jew-fish appear in the inlets in shoals during the winter season. As to their time and place of spawning, I may state that I have opened these fish at all seasons, but have never yet detected any sign of spawn, and, from frequent inquiries, cannot elicit any information on this point; but I think it reasonable to infer that they do not spawn in the inlets. I also incline to the opinion that all fish on our coast travel northward when schooling.

Flathead are in abundance in these waters during the summer months; the hard clean bottoms of the lower waters are well adapted for their feeding and breeding grounds, and they afford capital sport for the angler. They are also in full-roe during summer.

Tailor are in abundance during the whole year, but more particularly so in the summer. Although considered excellent eating when fresh caught, they are not much sought after on account of their tendency to turn soft during transit, and are seldom taken unless of exceptionally large size. These, like the jew-fish, are very rarely found in roe; it is, therefore, difficult to determine when or where they shed their spawn.

There

There are also several different kinds of fish known in Australian waters which periodically enter the inlets to the north and south, but are very rarely known to enter here, amongst which are the king-fish, salmon, herring, mackerel, rock-cod, trevally, and nannygai.

Whilst dealing with the various kinds of fish, I may state that on the 17th March a school of albacore found their way into the harbour, some of which were speared by the half-castes; but the fish being little known no use was made of them.

It seems rather remarkable that these fish should enter here, as they are essentially a deep-water fish, and the entrance to this port is seldom more than 7 feet in depth.

Of prawns there are plenty in these waters; but prawn-fishing is not carried on owing to the length of time it takes to get them to market.

Crabs, unfortunately there are too many, and may well be classed as vermin, as they are very destructive amongst oysters. Their powerful claws enable them to crunch through the shell and consume the oyster.

The output of fish for the year was 2,463 baskets, the greater number of these being mullet and black-fish.

This does not by any means represent the total catch, as great quantities of fish are destroyed, principally owing to the non-arrival of the steamer.

The usual custom is for the fishermen to make their hauls on the night previous to the expected arrival of the steamer in the morning; but it is to be regretted that it often occurs that the steamer does not arrive in time, when, consequently, the whole catch is lost. The non-arrival of the steamer is caused sometimes owing to there not being sufficient water on the bar, or bad weather and unavoidable accidents, but from whatever cause the serious loss of fish and labour is to be deplored.

The mode of transit to the metropolis is in large cases holding from five to ten baskets of fish, packed in ice, and carried on the steamer's deck.

Of the state of the waters for netting, I may state that there are miles of good hauling-grounds; but by far the largest area is practically closed against the use of nets on account of the growth of marine vegetation and rocks and other obstructions.

The only net that is used is the ordinary hauling-net, 300 fathoms in length. This concession has been granted for a period of three years, on account of the very extensive flats over which the nets have to be hauled, and renders the 150-fathom net totally inadequate; and I think the long net is preferable to the shorter one, as the fisherman can often obtain all they require in one haul, instead of having to make a number of hauls, and thus constantly harass the fish, and destroy the feeding and breeding grounds.

With reference to the destruction of fish caused by the different nets, I think the present hauling-net the least objectionable; but if it is desirable to conserve the fisheries, I think it might be better to increase the mesh from $2\frac{1}{4}$ to $2\frac{3}{4}$ inches. Any fish that escape through this mesh is not of much value for consumption.

Line-fishing is not carried on to any extent, only being limited to the residents and half-castes for their own consumption. I think if the resources for line-fishing in these waters were better known numbers of pleasure-seekers would be inclined to pay it a visit; there is every facility for boating, fishing, and bathing, both inside and on the sea-beach, while the scenery and climate is all that could be desired.

There are no closed waters under my supervision; and I do not think the closing of any portion is absolutely necessary, unless a portion near the entrance to allow the schools to pass in unmolested, a considerable portion of the lake waters being already naturally closed against the use of fishing-nets.

The number of fishermen employed during the year was twenty-one, and fishing-boats seven. The district is capable of sustaining a much larger fishing population; but the means of transit is insufficient at present; but I am informed that a more suitable steamer will shortly be placed in the trade. There were six half-castes employed in the industry, but they do not pay a license fee.

Two illegal nets were seized and confiscated; also two prosecutions for fishing without licenses, and verdicts obtained in both cases.

Oyster Fisheries.

The general condition of the oyster-deposits may be regarded as satisfactory, a very large portion being well stocked. There are three very extensive areas well adapted for breeding-grounds which supply the bulk of the oysters which are sent from here. In addition to those sent directly from these areas, two men are almost constantly employed in thinning out and removing to other areas, which are suitable for fattening purposes, though they do not produce nor catch spat to any great extent.

There are also numerous areas held as spat collectors, the spat adhering to mangroves and cobbler's pegs, and are well suited for removal to other localities, where they soon mature.

All the oyster deposits in these waters are on shallow ground, which renders the removal of oysters from one area to another comparatively easy, as compared to deep-water deposits, where the dredge has to be employed.

The method of cultivation carried on is by removing from areas where they become too thick, and from the mangroves along the foreshores, and placing them on the shallow flats, where they are barely covered at low tide. It is on these flats where oysters thrive best, and not in deep water.

The condition of oysters is generally best during the winter months, but they are also in fair condition throughout the summer.

With regard to disease, it is to be regretted that a small consignment of oysters were sent here in the early part of the year, and, through ignorance of the presence of disease, were laid down on one of the leased areas, but were promptly removed under my supervision, the whole area being completely cleaned up and laid on the bank to bleach, the operation being completed within three days from the time of being laid down, since which no further disease has appeared, the whole of the oyster-bearing areas being perfectly free from disease. It is very fortunate, in this case, that the oyster-deposits are in shallow water, which renders the cleaning up of an area easy to accomplish. Had the diseased oysters been placed on deep-water deposits, the thorough cleaning up would have been next to impossible, and the disease permanently planted.

Referring

Referring to spat, the fall has been extremely light. This may be accounted for by the heavy fresh in the rivers during the month of June, at which time, I believe, the usual fall occurs (subject, of course, to climatic conditions). From the appearance of spat deposited on the stones near the entrance, I think that a good fall would have come in from the sea, and have been deposited on the leases, had it not been for the fresh water coming down, which destroyed it.

I am of the opinion that oysters shed their spawn every year; but sometimes under unfavourable conditions, and thus it becomes destroyed.

The last noticeable fall of spat occurred during May or June, 1896. This I infer from the size of the spat at the time of my arrival, viz., 15th July, 1896.

As to the age at which oysters are considered marketable, a great deal depends on the amount of feed which is brought to them by the influence of the tides. As far as my experience goes, at all places near the sea where the water is clear and salt, oysters do not mature so quickly as where they are situated on or near muddy bottoms, of course bearing in mind the mud is not so deep as to cover them.

I think in these waters it may be fairly assumed that it takes two and a half to three years for oysters to become of a marketable size.

In reference to this subject I may state that during the time I was stationed at the Clarence the flood of 1887 destroyed 87 per cent. of the oysters in that river, after which there were none taken for market for a period of two and a half years.

The output of oysters for the year has been 2,241 bags.

There have been twelve applications for oyster leases, comprising 2,100 yards of foreshore measured and reported on, making the total area under lease and applied for as 23,050 yards.

In addition to the public oyster reserve at Forster an area of 400 yards has been granted for the same purpose at Toncurry.

Manning River.

The oyster fisheries of this river differ from those of Wallis Lake in so much as they are deep-water beds, situated in the main river and the various tributaries, and extending for about 8 miles up. The south channel, forming the largest area, being a continuation of oyster-bearing ground almost the entire length. The oysters in this river are not generally in good condition except during the summer months, consequently are not worked to any extent except during that season.

Unfortunately the disease has been in evidence in this channel for several years; a portion of Scott's Creek appears to be the worst affected of any in the district. From casual visits I am not in a position to state positively whether the disease is increasing, but from what I have seen I do not think it is decreasing.

For the use of the public there has been two areas reported on and granted as public oyster reserves, one situated at the Old Bar, the other at Khappinghat Creek, the older reserves being situated, one at Luthrie Bay, the other near Harrington, making four extensive areas in the Manning district set apart for public use.

With regard to the area of leased oyster-ground, 6,400 yards have been applied for and reported on during the year, making a total of 18,850 yards of foreshore under lease and applied for.

In addition to the measuring of these areas, the whole of the leases have been measured and the boundaries readjusted.

Net-fishing.

Owing to the limited time at my disposal whilst visiting this district I am unable to furnish particulars regarding this industry, but I think the class of fish usually sent from here are better than those sent from Wallis Lake, being chiefly bream and whiting, but, unfortunately, like many other rivers on the coast, it has a bad entrance, and a serious loss of fish results, owing to the unfavourable state of the bar in bad weather, the steamer being unable to cross in or out.

Camden Haven.

I have paid two visits to this locality during the year for the purpose of measuring and reporting on oyster leases, and I found the oysters in good condition, free from disease, and the areas well stocked. The whole of these areas are held by one lessee, and are, like the Manning River leases, situated in deep water, and are only worked during the summer season, when good results are obtained, the leases being well and systematically worked.

The area under lease in this district I am unable to state, having no plan in my possession.

Net-fishing is not carried on to any extent, owing chiefly to the uncertain means of transit.

I have, &c.,

J. MASSINGHAM,

Assistant Inspector of Fisheries.

Sir,

Swansea, 15 January, 1898.

In reference to your letter of the 4th instant, I have the honor to furnish replies to the lines referred to therein, according to their respective numbers for the year 1897.

1. Mullet and black-fish spawn about March, April, and May; bream, flathead, schnapper, whiting, flounder, garfish, and tailor about December and January. I have caught bream in roe at different periods of the year.

2. Fish deposit their spawn wherever they may be when it is ripe—I think on shallows and in creeks principally.

3. Young fry is first seen on shallows at the head of bays and in creeks.

4. Bream may be seen everywhere, and travel during May, June, and July, and as late as September.

Whiting to be seen principally on the sand-flats about the sea entrance, and very often accompany bream in their travels. River-garfish like to be amongst the narrow silky weeds of flats; sea-garfish to be found principally on the coast, but plenty were caught in the lake this year; they also travel during the winter months; mullet are found in deep water, shallows, mud-flats, and creeks, and travel as black-fish do, in March and April.

5. Shoals of mullet may be seen between December and April; bream, whiting, schnapper, jew-fish, and garfish in shoals between May and September; tailors school in January, February, and March.

6. The total number of baskets of fish caught for sale during the year is 12,676.

7. All fish are sent to market by rail.

8. The water is in an excellent state for netting purposes.

9. The nets used for fishing here are the general hauling-net, the diver-net, the garfish-net, and the meshing-net; the effect of these on young fish is not injurious here; the water as a rule is deep and affords plenty escape.

10. Line-fishing by amateurs is carried on here continually between the months of October and April.

11. The parts closed against the use of fishing-nets are the lake entrance and portion of the lake embracing an area of about 6 square miles of water. I am sure if the entrance was not closed the fish supply of the lake could not be so good. Cockle Creek and Dora Creek are also closed, but only from a very recent date; these are great places for small fish of all kinds.

12. The average number of fishermen and boats engaged during the year is seventy and twenty-five respectively.

There are no oysters in Lake Macquarie worth cultivating. A trial was made of small oysters taken from the mangrove flats of the channel entrance and laid down in the lake, but it proved unsuccessful, the oysters all died.

During the months of March, April, May, June, and September fish were caught in great quantities by nets; these months of every year yield the best supplies of fish. On the night of the 9th May, R. Parker caught at Wangi Wangi Point eighteen baskets of schnapper weighing from 1 to 5 lb. each by himself with a short net; the next night he joined with C. B. Johnson's crew, and caught at the same place forty-six baskets of the same sized schnapper at one haul with 300-fathoms net; and again in June, Dunn's party also landed eighteen baskets schnapper.

In January, February, March, and April large catches of red bream, black bream, whiting, flathead, flounders, and tailors were caught by amateur-line fishermen within the boundaries of the lake-entrance closure; the majority of the fish would be in roe at that period of the year. The total number of baskets of fish taken during the year exceeds the catch of the previous year, 1896, by two and a half baskets, with about the same number of fishermen employed.

I have, &c.,

F. ALDRICH,

Assistant Inspector of Fisheries.

Sir,

Wyong, 11 January, 1898.

In reply to you memo. of 4th January, I have the honor to submit the following:—

1. The schnapper, bream, tarwhine, and whiting are full-roed in from November to January; black-fish and flathead, January to March; mullet, March and April; river-garfish, in August; sea-garfish, in July; long-tom, February and March. I have seen all those fish full-roed at other times of the year; but those times mentioned are about the main time.

2. In my opinion the fish spawn while travelling in the mouths of estuaries and rivers and in sheltered bays.

3. The young fry are first seen in shallow water on the flats of rivers or lakes and bays. I have seen large shoals of small fish, from $\frac{1}{2}$ inch to 1 inch, in drains and round the edges of the lake behind the weeds, and the water has been so hot that I could scarcely bare to wade in it. Still the young fish seemed to enjoy it.

4. As to habits, all kinds of fish are caught at times on the same ground; but, as a rule, the schnapper and bream like a rocky bottom; whiting, a sandy; mullet and flathead, a sandy or muddy bottom.

5. On 14th, 22nd, and 23rd April, large shoals of mullet went out; on 23rd April, a shoal of black-fish came in; on 5th and 6th July, large shoals of mullet were on the entrance flats, and on 7th very large shoals of some small fish were on the beach outside the entrance, but I was unable to see what sort they were, as they were a long way out.

6. The output of fish for 1897 was 10,372 baskets.

7. The fish are brought to the mouth of Wyong Creek, where they are basketed up. They are then put on board the steamer and taken to Wyong and carted up to the railway-station, where they await the arrival of the fish train, which arrives there about 11 p.m.

8. At present the waters are in fair condition, there not being so much slime and weeds on the bottom; but the weather is very much against getting good hauls. The north-east winds have been exceptionally heavy this summer, and this is the worst wind which blows for Tuggerah Lakes, there being not many sheltered hauls with a north-easter.

9. Hauling, garfish, meshing, and divers nets are used. The garfish-net is the most injurious net if not properly used; but in this lake there are few hauls where the fishermen land. I have not seen many young fish killed in this lake, as the nets are generally hauled to a back net out on the flats, clear of the weeds, and the small fish are mostly all in-shore.

10. There is not much line-fishing done here.

11. The entrance, and 1 mile on either side, and 1 mile out into the lake, is the main closure here, and this gives the fish a chance to go out or in without being disturbed. There is also a large flat in the Middle Lake closed, which is a regular breeding-ground for small fish. Ourimbah, Wyong, and Wallarah Creeks are also closed. The effect on the entrance closure is that the fish can travel either way without being molested.

12. The average number of men has been fifty-seven, with twenty-three boats.

13. The condition of the only oyster-bed under lease is good, and is suitable for oyster-culture, there being a great many whelks all over the bed. The lessee has put a lot of ti-tree stakes on his lease, but up to the present nothing has adhered to them except barnacles.

14. The oysters are in good condition, and there is no disease.

15. The first notice of any young oysters appearing on the whelks or shells was in October.

16. The oysters here are marketable in about two years.

The

The supply of fish up to the end of June, 1897, increased by 1,012 baskets. This is attributable to the closures opening to net-fishing in February, but the take for the whole year has decreased by 1,050 baskets.

The take for 1896 was 11,422 baskets; for 1897, 10,372 baskets; decrease, 1,050 baskets.

I think that the weight the fishermen are allowed to catch the fish at is too small. Not one fish enumerated in the schedule has got the sign of a roe in it at the weight opposite their name, with perhaps the garfish only. The consequence is that all kinds of fish must decrease.

When I was here some seven years before, the fishermen would not put any small fish in their baskets, although they were over the weight they were allowed to catch them at. They said they would spoil the sale of the other fish. Now they are glad to send them the bare weight, and they do not get the catches they got formerly.

The entrance opened on 24th April through the heavy sea breaking over, and there was a very large entrance up till the end of the year; but it has since closed up considerably, and is likely to close altogether if rain does not soon come.

CHARLES GORDON,
Assistant Inspector, Tuggerah Lakes.

Sir,

Brisbane Water, 15 January, 1898.

In compliance with your request, I have the honor of forwarding the following report:—

Fish in these waters spawn as follows:—Schnapper in November, December, and January; bream, tarwhine, and whiting in December and January; black-fish and flathead in January, February, and March; mullet in March and April; garfish in July and August. Fish spawn, while travelling, in the mouths of estuaries, bays, and creeks. The young fry are first seen in shallow water in bays, creeks, and flats.

Bream like a rocky or gravelly bottom; whiting, a sandy; garfish and black-fish, a weedy; mullet, a muddy; flathead, a muddy or sandy; and schnapper, a rocky bottom.

I saw several shoals, in months of October and November, making their way to bays and creeks.

The output was 3,058 baskets of fish for the year ending 1897. Some are sent from Woy Woy per rail; some are carted from Terrigal, and sent per rail from Gosford.

There is no netting carried on here at present. Hauling, meshing, garfish, and divers nets are used when the waters are open. The garfish-net is injurious to small fish.

Thousands of people come here every year line-fishing.

The whole of Brisbane Water is closed. The waters are plentifully supplied with all kinds of fish at present.

When waters were open to net-fishing, there was an average number of boats here of twenty, with about forty-three men.

Oysters.

The oyster-beds are in fair condition, and are suitable for oyster-culture, and most of the lessees are cultivating their areas by shifting their oysters and laying them on more suitable grounds. The oysters are generally in fair condition; no disease. They spat more or less during the whole year. The oysters grown in these waters are marketable in about two years. The output was sixty-four bags for the year ending 1897. Total area under lease is 2,700 yards.

I have no other information, unless, I think, the waters should be permanently closed for the use of the general public.

I have, &c.,

JOHN CAIN,
Assistant Inspector of Fisheries, Brisbane Water.

Sir,

Hawkesbury River, 14 January, 1898.

In compliance with instructions of the 4th instant, for a report on the condition of the Fisheries and Oyster-fishing industry—the spawning and habits of the various kinds of fish—I hasten to comply therewith.

1. Times of spawning of different kinds of fish.—The times of spawning, as shown here, have been noted by experience; but floods and drought have also their effect. Schnapper spawns January to middle of February; black bream, yellow-fin bream, tarwhine, black-fish, and flathead during the same months; sea-mullet, April to middle of May; flat-tail mullet and tallegalann mullet (two kinds) during the same months; whiting, April; flounders, July-August; sole, during same months; trevally, September; perch, teraglin, during same month; garfish, February; cray-fish, October-November.

2. Places of spawning.—Generally the lower part of river and lakes, estuaries.

3. Where the young fry are first seen.—The young fry generally move up to the heads of creeks, where the water is not too salt.

4. Habits of the fish, and the months in which they travel.—Shoals of the different species of mullet may be said to travel more than any other fish, principally in March, April, and portion of May; at other times of the year they will drop up and down river with the tide. Bream, whiting, and tarwhine also travel in March and April.

5. Observation of shoals of fish.—Mullet commence to gather in March, some 20 miles up river, and come down to the heads in large shoals, when a change of wind to the south, south-west, or west will then have the effect of starting them travelling, always north direction; and an easterly, north-east, or north wind will stop their travelling for a few days. They will enter into every river, lake, drop their spawn, and cease travelling. Have also observed shoals of bream to come down river, go outside for a few days, and come in again. Shoals of pilchards generally move on the coast in the winter months in a northern direction.

6. The output of fish.—The total quantity of fish sent to market from this river during 1897 is 8,843 baskets; but of this quantity a large percentage were only half-baskets.

7. Their transport to market.—The greater part are sent by train; some by steamer.

8. The general state of the waters for netting.—In all open waters fish may be said to be scarce.

9. The class of nets used, and whether they have any injurious effect on young fish.—The net principally used on this river is the garfish net, a net most destructive to all and any kind of young fish, who are drawn ashore daily, and killed by thousands.

10. The extent to which amateur line-fishing is carried on.—Amateur line-fishing is carried on to a large extent in this river, and great quantities of small illegal fish are often caught for sport and destroyed.

11. Specify the waters that are closed, and state what effect the closure has had regarding the fishing industry.—The following waters are closed at present :—Three-quarters of the whole of Mooney Creek—all the upper part—about 10 miles; the whole of Mullet Creek, about 5 miles; the whole of Marra Marra Creek, about 4 miles; two-thirds of Berowra Creek is closed—all the upper part—6 miles; three-quarters of the whole of Mangrove Creek—all the upper part—about 12 miles; four-fifths of the whole of Cowan Creek is closed—all the upper part, with creeks—14 miles. The effect the closing has had is that mullet may be said to be fairly plentiful in the closed waters of Mooney Creek, Mullet Creek, and Berowra Creek; whereas fish of any kind continue very scarce in Cowan Creek, owing to the amateur element catching everything big and small.

12. The average number of men and boats employed during the year.—The number of licensed fishermen during 1897 was ninety-four, and the number of licensed fishing boats was thirty-six.

I have, &c.,

P. SMITH,

Assistant Inspector.

Sir,

Referring to your memo. of the 4th instant, I have the honor to report on the condition of the Oyster Fisheries of the Hawkesbury River :—

13. The general condition of the oyster-beds, their suitability for oyster-culture, improvements made, &c.—I beg to state that there are at present very few oyster-dredging beds on the Hawkesbury River; that oysters on this river grow mostly on rocky foreshores. Oyster-beds, which did exist in Berowra Creek some twenty-five years ago, and which yielded some thousands of bags of oysters yearly, have long since been allowed to be destroyed, partly by floods and partly by man. The oyster foreshores of the Hawkesbury River and tributaries are particularly suitable for oyster-cultivation on a large scale; many thousands of bags of oysters could be grown yearly, and much employment could be created, but at present everything tends to the total destruction of the industry.

14. The condition of oysters; any disease existing.—Marketable oysters are generally very scarce, and there are also some worms still in the oysters, but the worms are mostly confined to the low-water line and low-water oysters.

15. When did the last fall of spat occur?—The oyster foreshores on the main river and tributaries extend over a large area, and different localities have different times of spatting. For instance, Berowra Creek spats in the winter months, whereas many other localities spat in the spring and summer. A difference of two months will occur in Mooney Creek between the oysters in the upper Mooney Creek and the oyster foreshores in lower Mooney Creek. Very young spat may be found, by looking for it, all the year through, being carried about with the tide from one creek to another.

16. At what age are the oysters grown in your waters marketable?—The age at which oysters are of marketable dimensions, and fast growth, depends on the strength of the salinity of the water. In water having a salinity of about $5\frac{1}{2}$ per cent. oysters would grow to marketable dimensions in eighteen months or less; whereas, in waters having a 9 per cent. salinity, oysters would take a much longer period to come to marketable size, perhaps three or four years.

17. The output during the year.—The total quantity of bags of oysters shipped during 1897 is 712 bags.

18. The area, in yards, of oyster leases.—The area under lease at present comprises 3,900 yards of foreshores; there are also 4,400 yards held at present on sufferance occupation.

I have, &c.,

P. SMITH,

Assistant Inspector.

Sir,

9 March, 1898.

We have the honor to furnish you with information regarding the following matters in connection with the waters of Port Jackson.

1. Times of spawning of different kinds of fish.—Black bream, November to February; mullet, March to May; garfish, January to March; whiting, March to May and June; schnapper, December to March; crayfish, during the winter months.

2. Places of spawning.—Shallow, sandy, weedy, and rocky bottom in quiet localities.

3. Where the young fry are first seen.—Same answer as No. 2.

4. Habits of fish, and when they travel.—Mullet, harbour fish until spawning time, when they travel along the coast; bream, harbour and sea fish, carnivorous; garfish, sea and river-fish, herbivorous; black-fish, harbour fish, herbivorous; schnapper, kingfish, and teraglin, sea-fish, carnivorous; whiting, harbour and sea fish, carnivorous; with the exception of scaley garfish, they all travel more or less at spawning time.

5. Observations of shoals of fish.—Invariably travelling north.

6. The output of fish.—We cannot supply this information.

7. Their transport to market.—In baskets carried by hand and carts.

8. The general state of the waters for netting.—Fairly good, with the exception of blubber, which has been very thick.

9. The class of nets used.—Chiefly garfish and prawn nets, which have a most injurious effect on young fish and spawn.

10. The extent to which amateur line-fishing is carried on.—It is extensively carried on.

11. Closed waters.—Parramatta River and tributaries above Abbotsford and Bedlam Point, and Lane Cove above Onion's Point. The effect of closure allows fish to spawn and mature without being harassed by fishing nets.

Oysters.

13. There are no oyster leases in Sydney Harbour, nor is there any improvement or artificial cultivation carried on, and it is unsuitable for oyster-culture, there being so much traffic all over the foreshores.

14. The condition of oysters generally is poor. We know of no disease existing.

15. We cannot say when the last fall of spat occurred.

16. With the exception of a very small portion of the harbour, we have not seen a marketable oyster on it for years.

17. The output during the year.—Nil.

18. The area of oyster leases.—Nil.

In conclusion, we beg to call your attention to the injurious effect caused by the prawn-nets used by the Italians. Although not coming within the meaning of the Sunk Nets Act, they are nothing but a sunk net with a deep bunt instead of a bag.

We have, &c.,

RICHARD HELLINGS.
GEORGE GLADING.

Sir,

Concord, 11 February, 1898.

I beg to submit a brief report upon the fisheries of Port Jackson and tributaries for part of the year 1897. The supply of fish, notably mullet, bream, and whiting, has been only fairly good, fortunately for the general public, as this gave a supply of fresh fish, which was much needed during the warmer months.

It is impossible to state the exact number of fishermen using nets in these waters; but the limit would be at least seventy boats at work; out of these two-thirds will be manned by foreigners.

While the net-fishermen are helping to denude the fish supply by destroying the young fish, they are assisted in this destruction by the line-fishermen, who catch vast quantities of immature fish. It would be quite impossible to give an estimate as to the quantity of small fish destroyed; but the amount is massive and shameful. I may state that the net-fishermen catch also what the lines could not catch, and leave the same on the beach to rot, whilst the line-fishermen catch bream, whiting, and flathead of such a minute size that they are altogether too small for human consumption.

Part of Parramatta River and the whole of the Lane Cove River have been closed against the use of fishing-nets, and to state what effect such closures have upon the fishing industry I can only state that, in my opinion, such closures do not give forth the result sought for, as they do not protect the fish such as mullet, flathead, and bream in adult stage, as the feeding-grounds have been ruined, and only in Lane Cove River are there deep holes for the fish to seek protection. The great value of the closures referred to rests in their protecting travelling fish until the next change of weather and as nurseries for young fish.

The spawning of edible fish cannot be mentioned for any particular month on account of local or climatic conditions, and that the spawning does not take place in the closures referred to, as fish spawn in the mouths of rivers or bays as they travel along the coast in the purer water. The fry, when hatched, then seek the more brackish waters, as a rule. This will account for the fry being seen all over the harbours, lakes, inlets, where there is shelter and quiet waters. I have seen thousands of fry in the basins at Wollongong, Kiama, and Shellharbour, and other places along the coast.

Schnapper are found in spawn, January to March; black bream, November to February; mullet, April to August; sand-mullet, April and May; sand-whiting, October to December; trumpeter-whiting, March to April; garfish, October to February; river-garfish, July; tailor, about October; trevally, December.

The hauling grounds are now being taken up by moorings, wharfs, reclamations, &c., otherwise hauls are clear, the other trouble being the quantity of blubber, the class of nets used being prawn-net, garfish-net, hauling and meshing, the two latter being very much in the minority unfortunately, thus leaving the two most destructive implements of fishing to be used. There are no oyster leases in the harbour; but a fair quantity of oysters are to be found upon the rocks at Vacluse.

Large shoals of pilchards and herrings passed along during the season; a few entered the harbour and a few hauls were made with small catches, and the prices realised were not large. Mackerel were also caught in quantities, but did not bring even fair prices.

I have, &c.,

FRED W. SMITHERS.

Port Hacking, 15 January, 1898.

REPORT on the fisheries and oyster fisheries under my control for the year 1897.

1. Times of spawning of different kinds of fish in the waters of Port Hacking?—Black bream spawn between January and February; they are also supposed to spawn in August and September. Black-fish spawn between February and March. Whiting spawn between November and December. Sea-mullet spawn in the month of June. River-garfish spawn in the month of February. Sea-garfish spawn between September and October. Flathead spawn between March and April. Flat-tail mullet spawn from March until June. Schnapper spawn from January to February.

2. Places of spawning?—The majority, in fact all these, spawn in the bays, inlets, and on sea-beaches.

3. The young fry are first seen in great numbers in the bays and inlets of these waters.

4. Habits of the fish and the months in which they travel?—Sea-mullet and flat-tail usually seen in shoals travelling north in the months from March until June. Whiting and hard-gut mullet usually seen in shoals travelling north in the months from November until February. Black bream and black-fish, usually seen in shoals travelling north but twice a year, between the months of November and December, and also in May. Sea-garfish are usually seen in large shoals, principally on sea-beaches, from January until June. River-garfish are usually seen in heads of bays and inlets all the year round, and principally travel out by heavy flood-waters. Flathead (river) go in fair shoals, and keep to the bottom where it is sandy and patchy ground. The majority of these fish travel in these months with south to south-west winds.

5. Observation of shoals of fish?—I have observed the Australian salmon last October and November entering the waters of Port Hacking nightly and daily, and the sea-mullet also from March until May 31st, and the sea-garfish from January until May 31st, all in large shoals.

6. The output of fish?—There is no output of fish from here except what are obtained by the amateur fishermen.

7. Their transport to market?—There is no transport to market from here to my knowledge.

8. The general state of the waters for netting?—The waters generally are in a good state for net-fishing.

9. The class of nets used, and whether they have any injurious effect on young fish?—There are no nets allowed in Port Hacking.

10. The extent to which amateur line-fishing is carried on?—It is carried on to a great extent, almost daily. I have observed dozens of boats with four and five dozen red bream, young schnapper, and whiting weighing from 2 to 4 oz. caught by amateur fishermen.

11. I think that if the waters of Port Hacking were opened up for net-fishing once in every three years, for three months, it would be an advancement to the fishing industry.

12. There has been no boats or men employed during the year 1897, as the waters have been closed.

Oysters.

13. The general condition of oyster-beds are only fair. The suitability of Port Hacking as a field for oyster-culture is very doubtful, and I would not advise the granting of further leases for some time at least. There has been some artificial cultivation carried on on the leases already granted.

14. The condition of oysters, any disease existing?—The oysters are rather small, but there is no disease existing.

15. The last fall of spat occurred during the months of June and July.

16. At what age are the oysters grown in your waters marketable?—The oysters of Port Hacking would not be marketable for eighteen months or two years after the fall of spat.

17. There was no output during the last year, 1897.

18. The combined area of the two oyster leases granted is about 800 yards, one of them being 300 and the other 500 yards.

19. There are lots of oysters in Port Hacking, but rather small; I consider that with proper cultivation there is a grand opportunity of developing the oyster industry.

To the Department of Fisheries.

I remain, &c.,

W. H. NEWTON,
Port Hacking.

Sir,

January 15, 1898.

I have the honor to submit the following report of the fisheries under my supervision during the year ending 31st December, 1897:—

Woronora.

This river has been closed against net-fishing during the year. Fish of all varieties have been plentiful up to June, when the flood came down and cleared them all out; and then again in July another flood came, which left the river almost destitute of fish for a time. After the fresh had subsided, fish began to accumulate again, and in October it was a living mass of fish, especially hard-gut mullet. In November large lots of the said fish left the river in shoals every change in the weather, but a lot of the fish travelling from the southward came in to the river. At the present time there is a fair supply in the river.

George's River.

These waters have been open during the year. In the early part of the year great quantities of black bream were caught by line fishermen up to the time of the fresh in June. Greater quantities were caught by line than for years past. Plenty of fish of all kinds have been in the waters during the year, but owing to the quantity of blubber the men could not kill the fish, this being the worst year for netmen for years past. During the freshes in June and July great quantities of fish were caught, especially black bream and whiting, upwards of 500 baskets of the two latter, principally between the bridge and Dover Point. This has been an exceptionally good season for trumpeter-whiting, about 1,000 baskets being killed between April and June, principally about the mouth of the river and Botany Bay. Those fish do not travel far up the river, very few being caught above the bridge.

Sea-mullet.

This has been an exceptionally good season for these fish, great shoals of them coming in the Heads, but they kept too wide off the work for the men to kill them, only seven or eight boat-loads being killed out of as many hundreds.

Prawns.

During January and February a good supply and quality were killed in Cook's River, Kogarah Bay, and Salt Pan Creek, but the following months they were very scarce. Owing to the scarcity the waters were closed from 1st June to the 30th September, which has greatly benefited waters, as since the opening the boats have been getting very good freights.

I beg to draw your attention to the number of men working without a license, especially prawning, and it is impossible for me to prove sale against them, for if I send anyone to buy from them they say they are not fishing for sale; and, to the best of my opinion, licensed fishermen take their fish and prawns to the market, and sell them in their (the licensed men's) name.

The only remedy I could suggest would be to compel any person fishing with a net to be the holder of a license.

Oysters.

Areas under lease 10,200 yards, quantity collected from same 525 bags during the year; the leases generally are in good order and are fairly well stocked. The oysters on the mangrove leases are slightly touched with mud or worm disease; all the deep-water beds are badly affected with same. The lessees cannot improve their holdings by collecting spat off the Crown lands not under lease. As their permits were cancelled some years ago they have to wait until the oysters grow on their lease and catch whatever spat they can by laying out bushes, logs, stone, and other material. Owing to the cancellation of the permits the oyster pilferers collect all oysters from the Crown lands for their own consumption so they say. I would like to call your attention to the 15th section of the Oyster Fisheries Act, under which there are about 200 persons collecting oysters daily from Crown lands and oyster reserves.

I have, &c.,

J. D. GRANT,

Assistant Inspector of Fisheries.

Returns

Returns Relating to Fish.

1. Times of spawning of different kinds of fish?—Black bream and black-fish, about December; school whiting, flat-tail mullet, and flathead, about January; trumpeter-whiting and flounder, about September; sea-mullet, about May and June; sea-garfish, about March and April; river-garfish, about October; sole, about August. The above is about the regular time of spawning, according to my opinion; but I have found large roes in almost all kinds of fish at all times of the year.

2. Places of spawning?—In all inlets, boat harbours, sea beaches, mouths of bays, rivers, and lakes, when the fish are travelling.

3. Where the young fry are first seen?—In all inlets, boat harbours, along the coast, and in all parts of the river.

4. Habits of fish, and the months in which they travel?—Black-fish, black bream, sand-whiting, trevally, hard-gut mullet, November; sea-garfish, sea-mullet, February; salmon herring, murray pilchard, and other coast fish, from September. The above is about the regular time of travelling, although the state of the weather, in a great measure, regulates it.

5. Observation of shoals of fish?—I notice, when fish are congregating in shoals, they are preparing to travel, generally previous to bad weather.

6. The output of fish?—It is impossible to give the output of fish from this district.

7. Their transport to market?—Principally by carts, from all parts of the river and Botany Bay; also a few by train.

8. General state of the waters for netting?—Several of the principal hauls are not workable since the freshes in the river during the winter months, owing to large hummocks and long weeds. The blubber also have been worse this year than ever known in this district. It is impossible for the men to kill any quantity of fish, as they cannot land their nets if they shoot wide.

9. The class of nets used, and whether they have any injurious effect on young fish?—General hauling, or mullet-net; meshing, prawn, and garfish. The prawn and garfish nets have a very injurious effect on young fish.

10. The extent to which amateur line-fishing is carried on?—Amateur line-fishing is carried on to a great extent in this district. The following will give you a little idea of the extent:—In March last year, on the 7th, there were over twenty-five skiffs, with from three to five persons in each, fishing between Common's Point and the mouth of the river, distance about 2 miles. I had an interview with one of the parties, who had between ten and twelve dozen red bream (young schnapper), weighing from 2 to 5 oz., of which I weighed about three dozen; they told me that the other boats all had more than they had, as they threw all the smallest of theirs overboard. I do not think that any of the parties belonged to the Amateur Fishermen's Association. I have frequently noticed letters from the Secretary of the Amateur Fishermen's Association asking amateurs not to kill small fish.

11. Specify the waters closed, and state what effect the closure has had regarding the fishing industry?—The only waters closed in my district is the Woronora River from the Como Bridge to the head of the river. The closure, I consider, has a very beneficial effect, as that river has very little blubber, and if open the nets would clear all the fish out of it. Previous to the floods during the winter months, there were more black bream caught in George's River than has been caught for years past (line fishermen).

12. The average number of men and boats employed during the year?—Men, eighty; boats, thirty.

Oysters.

13. The general condition of oyster-beds, their suitability for oyster-culture, any improvements or artificial cultivation carried on, &c.?—The mud or worm disease is still very bad on all deep-water beds, the mangrove-beds are all more or less affected. The only artificial culture tried to any extent was by the Hon. T. Holt, in Gnawly Bay, where he expended some thousands of pounds on the French and English system which proved a complete failure.

14. The condition of oysters any disease existing. Oysters generally in good condition?—I find that oysters artificially laid, or oysters on wood, bottles, &c., stuck in the mud, leaving oysters clear of mud, take the disease much quicker than those naturally growing on the beds.

15. When did the last fall of spat occur?—It is impossible to say when the last fall of spat occurred, as you can find spat from the size of a threepenny piece on the rocks all the year.

16. At what age are the oysters grown in your waters marketable?—Oysters generally grown to marketable size in twelve months, though many of them are too tender in the shell to remove from the rocks.

17. The output during the year?—525 bags.

18. The area in yards of oyster leases?—10,200 yards under lease; 2,700 yards applied for but not yet granted.

19. Any further information regarding the fisheries and oysters-fisheries that you think will be of interest to the public?—I would certainly recommend the closing of the whole of George's and Woronora Rivers, from the punt crossing Dover Point to Sylvania, during the winter months, as the blubber leaves the river during the winter, and the fish are very quiet and dormant then; the nets working great havoc amongst them during the cold weather. The blubber in summer protects the fish.

I have, &c.,

J. D. GRANT,

Assistant Inspector of Fisheries.

Sir,

Wollongong, 13 January, 1898.

I have the honor to forward the following report on the fisheries under my supervision for the year ending 31st December, 1897:—

The principal fish caught in Lake Illawarra are bream, tarwhine, flathead, mullet, garfish, black-fish, whiting, and jew-fish.

The time of spawning, approximate, of the different varieties of fish frequenting Lake Illawarra—Bream, August, September, and October. I have examined these fish in December, January, and February, and found some of them full-roed. The place of spawning of these fish I have not been able to ascertain from my own observation. I find the young fry first appear in the creek, and work from the creek into the

the lake. These fish appear in large shoals along the coast in July and August, and in August, September, and October they work into the lake. When caught on the sea-beaches during the colder months they are in very poor condition. These fish are caught in large numbers by the hauling-net; as many as 100 baskets have been netted at one time during the season. It was not an unusual occurrence to net thirty and forty baskets at a haul. The grounds most frequented by these fish are of a clean sandy bottom, the home of the cockle in which the bottom of this lake abounds. On a clear day the presence of these fish can be detected by working slowly over the hauling-grounds and keeping a keen watch on the bottom for holes that have been made by the bream in search of food, and other times by the muddy appearance in patches of the water, the effect of the working of these fish on the bottom. Numbers of these fish are caught by amateur line-fishermen during the months of September, October, November, and December; they then take off and are not caught in any quantity by the line or net until about April. Throughout the year there have been large numbers of young bream distributed all over the lake from 3 to 4 inches in length.

Tarwhine.—These fish I have found full-roed in November and December, but am unable to give definite information as to when or where they spawn. The young fry I have first noticed on the sand-flats adjacent to the entrance of lake. I have never noticed these fish schooling; they are generally caught in company with the bream, but never in the lake in any quantity, and not at all in the creeks. They are caught freely with the line.

Flathead are in full roe in December, January, and February. I cannot definitely say where they spawn. The young fry I first notice during the months of February and March, on the shallow sand-flats in the entrance of the lake and shallow flats of the lake. Probably they spawn in the sandy banks in deep water within the entrance and lake. The adult-fish school in the warm summer months, and are then caught by net and line in large numbers. Two species only are caught in Lake Illawarra—the sand, and brown, or mud flathead. Large numbers of these fish are caught by amateurs off the coast, the principal grounds being off Clifton and Long Point, near Shellharbour. The bottom on both of these grounds is a mixture of fine sand and mud, the ground off long point being of considerable extent.

Mullet.—Time of spawning, March, April, and May. Places of spawning.—From my observations of these fish, I find that they spawn in the lake and creeks. On the 1st of April, 1890, an exceptionally large shoal of mullet worked into Lake Illawarra. These fish were full grown and in full roe, also in splendid condition. On the morning of 21st May following, whilst getting into my boat, my attention was arrested by what at first sight I took to be a sediment in the shallow water; on closer observation it turned out to be myriads of young fish. I at once examined the whole of the flats in the bay—Kelly's Bay—and found it literally swarming with young mullet of about 1 inch in length. These fry, after a few days, disappeared into deeper water; and, during the spring and summer of that year, the tributaries and shores of the lake were alive with young mullet from 2 to 4 inches in length. During the months of March, April, and May these fish shoal up and migrate to the north. Shoals of hard-gut migrate during December and January, and right through the year small schools are constantly seen off the sea entrance of lake, generally travelling in a northerly direction. The modes of capture are by the meshing-net and hauling-net, and by the process known as bull-ringing.

Flat-tail Mullet.—Time of spawning I cannot definitely state. I have found these fish full-roed during November and December. The young fry I first notice during the months of August and September at the head of the creek, and on the shallow flats in the lake; fair shoals work into the lake during the months of March and April.

Garfish (River).—These fish spawn during the months of September and October in Lake Illawarra. I have found the roe fully-developed in January. The places of spawning are amongst the reeds which abound on the flats in this lake. The fry are first noticed amongst the reeds in small detached schools of about 1 inch to 2 or more in length. They are not a very plentiful fish in Lake Illawarra, and in consequence are only now and again captured by the process termed bull-ringing.

The sea-garfish appear off this coast in immense schools. During April of this year a very large shoal was noticed off Shellharbour. These fish are full-roed from November to January. I cannot say where these fish spawn. They are not caught in any quantity, as they do not work into the lake, and it is only when they work into the comparatively smooth beaches at Bombo, Kiama Harbour, Shellharbour Basin, and Perkin's Beach, Port Kembla that any attempt is made to catch them.

Black-fish.—Time of spawning, February and March. I have found these fish full-roed during the months of November, December, and January. I am unable to say definitely where these fish spawn, as I have first noticed during May and June the fry in water-holes amongst the rocky sea-beaches and also amongst the reeds in the lake. These fish frequent the rocky points of the coast, where there is a quantity of sea-weed, also all through the reedy bottom of the lake. This fish appears in large shoals off the coast at different times of the year, and work their way into the lake. They are more in evidence in this fishery during the winter months, when large quantities are netted.

Whiting, Trumpeter and Sand—time of spawning. I am unable to say definitely when these fish spawn in the lake. I have found them full-roed in January, February, and March. The young fry I have first noticed during the months of August and September on the sandy-flats in the entrance of lake. Small shoals of these fish have been noticed off the sea-beaches during the months of September, December, and January. In consequence of the weeding up of the sand-flats in Lake Illawarra during the last two years, these fish are not caught in any quantity. At times two and three baskets are taken in one haul, but this is a rare occurrence. At times good sport is had with the line at the mouth of the Tom Thumb Lagoon when fair numbers of sand-whiting have been caught.

Jew-fish.—Time of spawning. I am unable to give any definite information about the spawning of these fish. The young are frequently taken in good numbers during hauling operations. The larger and full grown play sad havoc with the school fish in the lake, and they are a serious source of trouble to the fishermen. When they happen to encircle a shoal of them they go through the strongest nets with ease, and when this happens the fruits of a day's work are lost by the escape of the smaller fish through the torn nets.

Crayfish.—Small variety. These fish, as heretofore, have not been utilised. They abound in large numbers amongst the reefs of the Five Islands. At times a few are caught in Wollongong Harbour by amateurs. Spawning: Not one of these fish has been caught about this portion of the coast carrying the spawn. They shed the shell during the month of October, and start to migrate at the latter end of November to December and January, keeping close in shore, and in a northerly direction.

Prawns.

Prawns.—Time of spawning. I have never been able to obtain any information, or from my own observations, as to when these fish, or crustacea, are carrying the spawn, although I have during each season examined them. They migrate from Lake Illawarra during the month of February. As they do not carry well in the green state the local fishermen do not care about working them. A few have been caught for local consumption only.

Observations of Shoals of Fish.

Large shoals of fish have been noticed during the year by your inspector and have also been reported to him from time to time by schnapper fishermen and others who have noticed them off this coast. During the month of February large shoals of small fish were reported to me as having been seen at sea. These fish were small and had the appearance of whitebait. Unfortunately my information was received too late to be of any use in the way of ascertaining the species. Some of the local residents caught them in large numbers with hoop nets, the fish having been left by the tide in holes along the rocks. Colour, of a bluish tint above to a silvery white of the sides; length, 2 to 3 inches.

During February, March, April, and May large shoals of sea-mullet were noticed travelling north; these fish when caught were full-roed and in good condition.

Shoals of bream and whiting were noticed off the entrance of lake during the month of September. These fish did not appear to be travelling, as they lay along the beaches for some weeks. During this month some very large shoals of fish were reported to me as having been seen at sea. The description given was that of the murray or pilchard, about 9 inches long, and seemed to be of a uniform size. These fish were travelling in a northerly direction. Some schnapper fishermen who were fishing off Shellharbour reported to me, during the month of April, an enormous shoal of murray on the outer fishing-grounds. These fish were working in a northerly direction.

A very large shoal of sea-garfish was noticed by me to the south of lake off Shellharbour during the month, and was travelling in a northerly direction.

Large shoals of salmon were off the coast during the month of October, travelling north.

None of these vast shoals of fish were utilised by the local fishermen, who have not the proper appliances for their capture in the open sea.

During the months of September and October small schools of whales were seen off the coast.

10,853 baskets represents the total output of Lake Illawarra for 1897, showing an increase of 4,192 on that of the previous year; 1,790 baskets were consumed locally. 9,063 baskets were forwarded to the metropolitan market.

The total catch from Lake Illawarra is railed to Sydney, less the local consumption. From the several railway stations adjacent to the lake, the means of transit are crude, close boxes being principally used to pack the fish in for transit. The class of railway carriages used are according to the train they are forwarded by; if by the passenger train, they are forwarded to Sydney in the brake-van and by luggage train, they are forwarded in open trucks and closed vans.

The catch is principally forwarded at night in the summer, and by day during the winter months. Notice is used by the fishermen during transit, and the fish seem to carry well.

Considering the large quantity of fish and the mode of transit, the quantity condemned on arrival at the metropolitan markets as unfit for human food is very small.

The general state of this water for netting has been good during this year. Operations have been carried on with varying success. Some of the principal hauling-grounds have been overgrown with weeds which have interfered with hauling operations to a material extent.

The class of nets used in these waters are hauling and meshing nets. The hauling-nets that are used in the process termed bull-ringing are used more frequently than the hauling-net proper. These nets are shot from the boats in a circle, and are hauled back into the boat. It will be seen that during the working of these nets that a fair length is off the bottom of the lake in consequence of both ends of the net being in the boat, one at the stern, the other at the bows, and are used generally in the centre of the lake amongst shoal fish, and cannot have an injurious effect on the young fish.

Garfish-nets are not generally used in this fishery, and are always used in the process termed bull-ringing, so that very few fish other than garfish are caught. Should any fry of the varieties get meshed, they are early released by the fishermen when hauling the net into the boat.

I would draw the attention of the Commissioners of Fisheries to the extremely long hauling-lines that have been used this year for the first time by the local fishermen during hauling operations. I am of opinion that these extremely long lines, from 2 to 500 fathoms, will not only have an injurious effect on the supply of the finer sorts of ground fish, and will also, in a great measure, ruin the feeding-grounds as well as disturb any spawn that may be deposited within the scope of these nets and ropes.

Amateur line-fishing has not been carried on to the same extent during this as in former years, although at times fair catches have been made in Mullet Creek and the lake entrance, bream being the principal variety caught, with a fair quantity of red bream and flathead.

Amateurs have had very good sport during the year on the several schnapper-grounds off this coast, at times very large numbers of schnapper and flathead have been taken.

The closed waters of Lake Illawarra comprise the tidal water of the channel entrance into the lake, including an equal distance of about 1 mile on each side of entrance, extending a distance of about 40 chains into the lake. Mullet Creek Closure.—Mullet Creek with the shores of the lake to a point on northern side about a quarter of a mile; and from the mouth of creek, southern bank, to the extremity of Kanahooka Point, such reservation extending half a mile into the lake. Both these portions of the lake are closed for a period of two years from the 23rd of September, 1896.

The other closures comprise the whole of Hooka Creek, Brook's Creek, Wollingury Creek, and Macquarie Rivulet for a period of two years from the 14th October, 1897.

The effect of these closures, especially that of the lake entrance, is obvious. The school and the finer sorts of ground fish have free ingress and egress from the sea to the lake, and are not disturbed or harassed by nets when working their way to and from the lake, and as the lake draws its supply of marketable fish from the sea the value of this single closure cannot be overestimated.

Mullet Creek reserve, as a breeding-ground and nursery for young fry, has been of great importance to this fishery; at times during the spawning season is alive with bream. The bottom of this creek from the fresh water to within half a mile of its mouth consists of a fine sand admirably adapted for spawning purposes. During the mullet season these fish work into this creek in large numbers. Young

Young fry are always in evidence in this water. Regarding the other recent closures, they have not been closed long enough to have any appreciable effect on this fishery.

The average number of men and boats employed during the year has been from twenty-two to forty men and from twelve to twenty-one boats.

Oyster Fisheries.

The oyster fisheries in my district are very small, and consist only of one lease at the Minamurra River, and from which no oysters have been taken for some years. I only visit the locality when specially instructed to do so.

The oyster deposits in the Tom Thumb Lagoon and entrance of Lake Illawarra are in fair condition, no disease existing. There was a fall of spat in the Tom Thumb Lagoon during the month of December. Oysters in these waters are fit for market at two years old.

Oyster lease, Minamurra River—400 yards.

I have, &c.,
D. W. BENSON.

1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

SEA FISHERIES.

R E P O R T

UPON

Trawling Operations off the Coast of New South
Wales between the Manning River and Jervis
Bay, carried on by H.M.C.S. "Thetis,"

UNDER THE DIRECTION OF

FRANK FARNELL, Esq., M.P.,

TOGETHER WITH

SCIENTIFIC REPORT ON THE FISHES

BY

EDGAR R. WAITE, F.L.S.

Printed under No. 3 Report from Printing Committee, 7 July, 1898.



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1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

SEA FISHERIES.

(REPORT UPON TRAWLING OPERATIONS OFF THE COAST OF NEW SOUTH WALES, BETWEEN THE MANNING RIVER AND JERVIS BAY, CARRIED ON BY H.M.C.S. "THETIS," UNDER THE DIRECTION OF FRANK FARNELL, ESQ., M.P., TOGETHER WITH SCIENTIFIC REPORT ON THE FISHES, BY EDGAR R. WAITE, F.L.S.)

To The Honorable J. N. Brunker, M.P., Chief Secretary,—

Sir,

As the result of an interview, which I had with the Right Honorable the Premier and yourself, at your office on the 5th January last, you were pleased to authorise me to make all the necessary arrangements for the purpose of making a test of our Offing Fisheries, in order to prove whether trawling operations would be practicable or not. You did me the honor to appoint me superintendent of the expedition, and in such capacity I have acted during the progress of all the experiments. The time specified by you, and embodied in the contract to which you and Captain Neilsen were parties, was stated to be three months, and it was thought by both Captain Neilsen and myself that that time was to be allowed for actual trawling operations. I regret to say, however, that, owing to the time occupied in fitting up the "Thetis" and delays which occurred through no fault of those in charge of the trawling operations, the three months originally decided upon was reduced to about six weeks' practical work. I feel confident that, had the time originally set apart been at our disposal, we would have proved the ocean-floor to be suitable for carrying on trawling operations for hundreds of miles along our coast. However, the result of the operations already carried out goes to prove beyond doubt that this mode of fishing can be carried on in connection with our Offing Fisheries, and with success.

It must be borne in mind that the object of the expedition was not of a commercial character, but simply to prove whether all the conditions necessary for carrying on successful trawling operations exist off our coast. By securing the services of Captain Neilsen and his men, no aspect of the question was left in doubt. On the contrary, whatever practices were in vogue in connection with the development of the fisheries in the North Sea and other waters they were adopted in connection with these experiments, and it must be gratifying to the Government to find that Captain Neilsen's report is of such a satisfactory character.

I prefer not to enter upon details in regard to the question of the great success attained by this expedition, on account of the prominent part which I have taken for years with a view of having such an expedition organised, but I think I will not be encroaching too much if I express the opinion that the result of the experiments has strengthened me in my belief in regard to the great field which is available for the development of the fisheries in this respect.

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With regard to our Offing Fisheries, I think we can certainly say that, during the few weeks we were occupied in connection with the experiments, we gained a very considerable amount of information. Our fisheries, like our agricultural efforts, are liable to great fluctuation on account of the climatic conditions of the Colony. In other words, a certain ground may be very productive of marketable fish to-day, but in a week hence the yield may be poor. This raises the question of having a properly equipped steamer placed in charge of an experienced fisherman, for the purpose of carrying on exploration work over a period sufficient to allow of a more accurate knowledge being obtained of marine natural history. The large problems connected with our fisheries must now be looked upon in no haphazard way. What we require is to establish a means by which we can acquire information which might lead to a scientific study of the life, histories, and habits of fish and the animals on which they feed. This would enable us to draft a measure, which from a Legislative stand-point, and for all practical purposes, would allow of the question of the development of the fisheries being made one of paramount importance. What chemistry is to manufacture, the science of complete Natural History must be to our fisheries. For it is evident that no clearly beneficial legislation can be instituted which has not for its keynote a proper understanding of the laws which govern the lives of the animals affected, and of the relations which these laws bear to the influence of man. Recognising the necessity of this, I have no hesitation in recommending the fitting out, in a thorough manner, of a steam-trawler, to be available for at least two years. This, I am glad to say, has been done by the authorities connected with the Cape Government, and it seems to me to be the most effective method of providing channels through which information of a reliable character can come. Not only that, but it has proved the most effective means of catching the best species of edible fish.

When I started the agitation for exploiting our waters some years ago, and the carrying out of experimental work in connection with the development of our deep sea fisheries, I was met with many adverse opinions on the possibility of successfully proving the ocean-floor to be suitable for trawling operations. This opposition continued up to even the very date of the fitting out of the "Thetis." The points put forward by my critics were as follows:—

- (1.) That the waters off the coast were so full of obstructions that a trawl could not be towed.
- (2.) That trawling operations must be confined to one direction, as they could only be carried on with the current, not against it or across it.
- (3.) That the waters off our coast were too transparent; therefore, trawling would have to be done at night-time.
- (4.) That the fish were not in sufficient quantities off our coast, as there was not sufficient animal life for them to feed upon.

Needless to say, I paid special attention to the objections referred to, and am glad to say that the first cruise disproved all the contentions put forward by my critics, for the result of the experiments of this cruise proved that there were no serious obstructions except that of a wreck (the "Minora"), the net having become fast only once, and that on the obstruction mentioned. Then, I may say, I trawled for hours at a time with the current, against the current, and across the current, with the best of results. Again, I trawled at night-time and during the day with no varying results. Fish were caught, during night and day, of the best varieties, of the best quality, and in quantities that I have no hesitation in saying would form a payable basis on which to start commercial operations. Lastly, investigations were made with a view of testing the presence of food for fish, and as a result of these investigations, the sea was discovered to be teeming with animal life for the fish to feed upon.

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The results obtained in connection with the succeeding tests are equally satisfactory, for—although the obstructions met with were a few—it was never contemplated, from the first, that the whole of our coastal waters would be found free from reefs or rocks; but sufficient grounds have been located which, for the production of good, edible fish, can be called prolific and payable. Comparing the expedition and its results with those obtained in other parts of the world, the work shows, in my opinion, phenomenal success. I am glad to have the opinion so expressed, endorsed, and borne out by men who have had a life-long experience in connection with trawling operations in other parts of the world. Not only that, but if our experiments are compared with those that have lately taken place at the Cape, it will be found that while they have been successful there, we have been more so.

Over 180 miles of our coastal waters, north and south, and up to a distance of 20 miles east, have been exploited in depths varying from 8 to 90 fathoms. As far as actual results are concerned, the grounds which were between 10 and 60 fathoms proved most prolific of fish-life. The bottoms trawled over were shown by the soundings taken to be sand, sand and shell, sand and gravel, sand and mud, brown sand, mud and shell, and soft mud.

One particular feature of the experiments made north of Port Jackson is the fact that during the whole of the operations not 25 lb. of seaweed were brought on board, nor did we encounter much in most of the hauls in the south; but there were three trawls in the Shoalhaven Bight and one in Jervis Bay that produced a considerable amount. In the latter place it took an hour or more to free the net of the weed, as it was a small red substance which became entangled in the meshes, and this, to a certain extent, stopped the freedom with which the trawl should go through the water. Where the larger weed was found was in depths from 10 to 20 fathoms, but no inconvenience was caused by the fact of its having been encountered by the trawl. As a matter of fact, the Shoalhaven Bight might possibly have been fished a few days after, and there would probably have been no sign of seaweed in it. The deposit of this seaweed, I should think, depends entirely upon the force of the sea, and the direction whence it comes, as well as on the influence of the tide.

With regard to the existence of reefs, of which we had indications from time to time, I might mention that I carefully located the spots on the chart, and fished them with hand-lines to prove their capabilities as schnapper-grounds. These grounds will be available for carrying on the system of well-boat fishing as an adjunct to trawling, or separately. In either case profitable occupation will be found in these localities.

As will be seen from the accompanying record of trawling operations, the best species of edible fish were caught. Those represented were Sole (3 species), Flounder (3 species), John Dory, Whiting, Schnapper, Trumpeter, Rock Cod (3 species), Gurnard (3 species), Boar Fish (2 species), Skate, Flathead (2 species), Teraglin, and Nannygai. The other fish caught were represented by Ray (3 species), Leather-jacket (of which only 20 were caught south of Port Jackson), small Sharks (4 species), Boxfish, Bullrout, Walking Fish, Numb Fish, and others. Crustaceans were represented by Crabs (3 species), Prawns (2 species), Crawfish, and Crayfish. It may be mentioned that for food purposes the Trumpeter caught is comparable with that found in Tasmanian waters.

I wish to lay special emphasis on the fact that the "Thetis" was not equipped for the purpose of catching fish for commercial purposes. The mission I undertook was simply to prove whether the ocean-floor was suitable for trawling operations to be carried on over it; but it is gratifying to find that I can accompany my oft-repeated contention with the fact that if I had so desired I could

could have caught fish in sufficient quantities to ensure a financial success, for, as will be readily seen, had I chosen to tow over the grounds which proved themselves so prolific of the best classes of fish over and over again, the returns would have been more than satisfactory. Instead of doing this, new grounds were in every instance tested, although the direction in which the operations were carried on was in some instances the same. Then, again, if I had had a suitable steamer, properly equipped, I could have tested the waters in many depths closer to the coast, where it is quite possible the fish were congregated in greater numbers at the time of the year we were trawling.

The results obtained from the operations connected with this expedition need not be looked upon, as regards its actual fish supply, as a basis which might offer itself for consideration in connection with the development of the industry by private enterprise, inasmuch as, with a steam-trawler, such as has been mentioned, five or six times as much work could have been done. Taking these facts into consideration, I have no hesitation in saying that there are fields open and available for the development of our fisheries, such as will yield the best species of fish in such quantities as will handsomely repay those who care to enter upon the industry with a spirit of enterprise. As to the non-edible section of the fish, which must be caught in certain proportions, I may say that every one could be put to profitable use, and to an extent that would pay for its collection.

It will be remembered that part of the work connected with the "Thetis" expedition was to be devoted towards testing the waters off the coast, for the purpose of ascertaining whether shoal-fish could be caught in quantities sufficient to lead to encouragement being given to people to engage in catching them for the purposes of canning, smoking, &c. I regret to say that, although a good lookout was kept during the whole time the "Thetis" was engaged on her work, no sign of shoal-fish, *i.e.*, fish that periodically visit our coastal waters, was apparent. However, I trust that at a later period of the year, when the certainty of the Pilchards approaching our coast is assured, an opportunity will be afforded for testing the use of the surface-net as a means of capture. Very little extra expense will be required; indeed, with the exception of the wages of the crew nothing further will require to be done.

I am pleased to say that the gear which was in use during the "Thetis" expedition is in splendid order and condition, and has not suffered by way of damage. The fact is worth recording that £5 would cover all the damage done during the whole of the operations. This is something which can be viewed as unprecedented. If the Government does not choose to carry out my recommendation of properly equipping a steam-trawler, I have no doubt that a ready sale can be effected in respect of the gear, which is now stored at Cockatoo.

Before concluding, I would like to say that, having heard so much of the fisheries of Lord Howe Island, I deemed it advisable to proceed there with a view of testing the ocean-floor in that vicinity. Unfortunately the weather was so fearfully boisterous that a thorough exploration could not be entered upon. However, the observations that were made went to prove that there is but a limited field available, inasmuch as it is only within a reasonable distance of the Island that the waters are shallow enough for carrying on trawling operations, and when soundings were made in these areas they were found to give indications of rough ground. It was, therefore, deemed inadvisable to risk the loss of a net and gear by putting it over. Although the waters around Lord Howe Island were not tested with the trawl, the opportunity was taken to carry on experiments with the handline and seine, with such results as to convince me that the wealth of the waters, so far as fish producing is concerned, are phenomenal, and that a large field awaits development at the hands of man. The edible species of fish caught there are such as could be treated in many ways that would mean
profitable

profitable occupation, as they embrace the following :—Mullet, bluefish, flounder, garfish, salmon, trevally, and kingfish. It may also be mentioned that from indications on the sea beaches, it has been gathered that there are large deposits of the pearl oyster within a reasonable distance of the land, so that by dredging operations this may prove to be a profitable industry, as well as the collection of Bêche de mer, several specimens of which were obtained.

I am pleased that the Chief Secretary allowed an opportunity for some of the Museum authorities to accompany me on the expedition, for, I understand, they have obtained very valuable specimens, and that the operations have proved beneficial to them from a scientific standpoint.

I have much pleasure in sending the report of Captain Neilsen, as well as one from Mr. Edgar R. Waite, F.L.S., of the Australian Museum (who accompanied the Expedition), which I am certain will prove interesting to the public.

I may state that, while believing the results of the expedition to be thoroughly satisfactory, and that the industry can be built up on a commercial basis, there are difficulties which will have to be overcome before people will be found ready to embark in the enterprise. I refer to the question of having a thorough and comprehensive system of distribution established. This, it appears to me, can only be accomplished by the aid of private capital, and now that it has been proved that the supply of fish for distributive purposes can be augmented from the wealth of our waters off the coast, I think there will be but little difficulty in inducing capitalists to provide the necessary funds and machinery for carrying on operations and supplying the public with fish food at a price which will come within the reach of all. I may add that I have all along recognised this fact, and that I am engaged upon the work of pointing out to capitalists the great possibilities of profitable investment which await them in the development of the fields of piscine wealth abounding off our coast.

It might be worth mentioning that during my experience on the "Thetis," on two or three occasions I was struck with the abominable sight of having brought on board in the trawl a pestilent mass of slaughter-house refuse, which gave out a most unwholesome smell, and which more emphatically impressed on my mind the necessity for some action being taken with a view of having this refuse either treated as a bye-product, or having it consigned to the deep at a greater distance from our coastline.

I have, &c.,

Legislative Assembly, 12th May, 1898.

FRANK FARNELL.

PARTICULARS OF HAULS.

FIRST HAUL.

Operations were commenced on Saturday, 19th February, 1898, by testing the grounds off Broken Bay. The steamer left the bay at 7 a.m., and we lowered the trawl at 7.14 a.m. in 20 fathoms of water, the soundings giving gravel and sand. It was raised at 9.30 a.m. in 32 fathoms, the soundings giving fine sand. The position was east from Broken Bay about 3 miles, and the distance covered by the trawl was about 5 miles. The following species were represented:—Schnapper, flounder, teraglin, whiting, gurnard, red mullet, flathead, stingray, fiddler, shovel-nose ray, leather-jacket, box-fish, dog-fish, saw-fish, batray, swimming crabs, and squid. A feature connected with this haul was the fact of several fish being full of roe, notably flathead and whiting.

SECOND HAUL.

On the same day, the 19th, the trawl was lowered at 11.20 a.m. in 32 fathoms—the soundings giving sand—and was raised at 1.20 p.m. on account of having become caught. The net was found to be torn at the cod end, and to have become foul of some obstruction. The latitude and longitude were carefully marked by those on board, and there is every reason to believe that the location of the obstruction points to it as being the wreck of the "Minora," which sank about 10 miles off Barranjoey some time ago. The haul was not without result, however, as the following species were represented:—Whiting, schnapper, John Dory, flathead, leather-jacket, bellows-fish, box-fish, gurnard, fiddler, and crayfish. Careful soundings were taken of the locality where the net met the obstruction, which gave the bottom as fine sand. Owing to the net having been torn, it was decided to run into Broken Bay and effect the necessary repairs, which were attended to on the Saturday afternoon and Sunday morning.

THIRD HAUL.

A start was made from Pittwater at 5.15 a.m. on Monday, the 21st, the course taken being south-east to the 31-fathom line, about 6½ miles out from Barrenjoey. The trawl was lowered at 6.53 a.m., the soundings giving sand and shell, and it was raised at 9 a.m. in 55 fathoms, when the soundings gave sand, shell, and mud. The result of this haul was nil, on account of the net having become twisted, the foot-rope getting over the head-line in shooting and completely closing the mouth of the trawl.

FOURTH HAUL.

The trawl was again lowered in 55 fathoms at 9.30 a.m., the soundings giving sand, shell, and mud, and was raised at 11.30 a.m. in 84 fathoms. The course taken during this haul was back over portion of the ground covered by the previous haul, and then round and going due east, and when the trawl was raised the soundings gave mud and shell. The result of this haul showed the following species represented:—John Dory, whiting, gurnard, flathead, flounder, cucumber-fish, box-fish, skate, stingray, saw-fish, and leather-jacket, besides a quantity of squid.

FIFTH HAUL.

The trawl was lowered for the third time this day at 12.45 p.m. in 84 fathoms, the soundings giving mud, and it was raised at 2.30 p.m. in 67 fathoms, the soundings giving soft mud. The result of this trial showed the following species represented:—John Dory, boar-fish, flathead, gurnard, skate, flounder, banded percis, angel shark, and leather-jacket. One thing to be noticed in regard to this haul is that, although the operations were carried on in an easterly direction, the water became reduced in depth, evidently showing that the trawl had been lowered in a hole or valley. A careful examination of the Admiralty chart failed to show the location of this hole. It must be noted that the fish collected from the net were full of roe.

SIXTH HAUL.

The trawl was lowered at 3.10 p.m. in 67 fathoms, the soundings giving soft mud, and was raised at 6.30 p.m. in 80 fathoms, the soundings giving coarse sand. This haul proved almost profitless on account of a somewhat similar accident happening as before, namely, the foot-rope getting twisted with the head-line, and completely closing the mouth of the trawl. The banded percis and flounder were the only fish obtained.

SEVENTH.

SEVENTH HAUL.

On the same date the trawl was lowered at 7 p.m. in 69 fathoms, the soundings giving coarse sand. The course taken was towards the shore, and the trawl was raised at 10.40 in 62 fathoms, the soundings giving fine sand. The following species were represented:—Nannegai, Sergeant Baker, gurnard, flathead, boar-fish, John Dory, morwong, red gurnard, perch, skate, leather-jacket, stingray, and angel shark.

EIGHTH HAUL.

On the morning of the 22nd the trawl was lowered at 6.15 a.m. in 25 fathoms, the soundings giving sand. The course taken was north along the coast from Broken Bay. It was raised at 9 a.m. in 28 fathoms, the soundings giving coarse sand and gravel. As a result, the following species were obtained:—Whiting, John Dory, gurnard, flathead, schnapper, stingray, leather-jacket, stone-lifter, box-fish, crabs, and squid. During the time the net was being hauled on board great numbers of whiting escaped, which were edible and marketable, and this can only be accounted for by the fact of the boat being so unsuitable for successful operations.

NINTH HAUL.

The trawl was lowered in 28 fathoms at 9.45 a.m. the same day, the soundings giving sand, and it was raised at 12 noon in 28 fathoms, the soundings giving brown sand. The course steered was north and off Cape Three Points. The following fish were caught:—Gurnard, flathead, flounder, skate, whiting, John Dory, leather-jacket, box-fish, stingray, stone-lifter, swimming-crabs, and squid.

TENTH HAUL.

The trawl was lowered again at 1.30 p.m. in 28 fathoms, the soundings giving brown sand, and was raised at 5 p.m. in 28 fathoms, the soundings giving fine sand. The course steered was off Cape Three Points, towards Tuggerah, going north. The result showed the following fish represented:—John Dory, gurnard, flathead, flounder, sole, skate, stingray, batray, shovel-nose ray, star-gazer, box-fish, saw-fish, Port Jackson shark, dog-fish, leather-jacket, crabs, and squid. As an evidence of the way in which the foot-rope gripped the ground on this occasion, it may be mentioned that amongst other things that came up during this haul were 30 fathoms of 4-inch Manilla rope.

ELEVENTH HAUL.

The trawl was lowered at 6.5 p.m. in 28 fathoms, the soundings showing sand, and was raised at 11 p.m. in 34 fathoms, the soundings showing sand. The course taken was off Tuggerah Lakes, going north to Bungaree Norah, then round east to south towards Port Jackson. The result of this haul showed the following species to be represented:—Flounder, flathead, nannegai, gurnard, skate, teraglin, John Dory, stingray, leather-jacket, box-fish, dog-fish, shovel-nose ray, crabs, and squid. During this haul the trawl brought in a heavy log, weighing over 10 cwt.

TWELFTH HAUL.

The trawl was lowered in 34 fathoms at 12.30 a.m. on the 23rd, the soundings giving sand, and was raised in 23 fathoms at 5.30 a.m., the soundings giving fine sand. The course taken was from off Cape Three Points, towards Port Jackson. The result of this haul was that the following species were represented:—Nannegai, flounder, John Dory, flathead, schnapper, teraglin, red mullet, gurnard, morwong, Sergeant Baker, skate, box-fish, stingray, leather-jacket, dog-fish and squid.

These hauls concluded the trials connected with the first experiment. The steamer was allowed time to coal and obtain supplies, and a fresh start was made on Friday, the 25th February.

THIRTEENTH HAUL.

When off Cape Three Points, the trawl was lowered at 7 p.m. in 41 fathoms, the soundings giving mud and sand, and it was raised at 9 p.m. in 51 fathoms, the soundings giving mud and shell. The course taken was north-east, and after trawling for two hours it was found that an obstruction had been met with which caused the warp to part, and the foot-line to break in the part where it was specially weakened, the only other damage done being a slight tear in the net. Some little delay was also caused by the bolt of the roller connected with the gangway giving way. The result of this haul was that the following species were represented:—Nannegai, flathead, gurnard, skate, red gurnard, perch, flounder, dog-fish, stingray, stone-lifter, and two or three small sharks.

At the completion of this haul the damage which had been done rendered it necessary for the steamer to go into Broken Bay again and have the necessary repairs effected. The greater portion of the time was occupied in re-measuring and splicing the wire-warps, which had to be run off the barrel of the winch and measured on to it again.

FOURTEENTH

FOURTEENTH HAUL.

We left Broken Bay at 5 a.m. on Saturday, the 27th, for the grounds off Bungaree Norah. The trawl was lowered at 7.15 a.m. in 25 fathoms, the soundings giving sharp brown sand and shell, and was raised at 9.45 a.m. in 32 fathoms, the soundings giving sharp sand, gravel, and shell. During the progress of this haul the net again became twisted, the foot-line getting crossed with the head-line, and thus completely closing the mouth of the net. It may be mentioned in connection with this haul that the unsuitability of the boat for trawling was responsible for the net not being properly lowered.

FIFTEENTH HAUL.

The trawl was lowered off Bird Island, about 6 miles to the east in 32 fathoms, the soundings giving sharp sand, gravel, and shell, and was raised at 12 noon in 45 fathoms, the soundings giving fine sand. The necessity for raising the net was brought about by the fact of the trawl showing indications of having met with some obstruction. When hauled up, it was shown that the cod-end of the net was torn slightly, and that the foot-line was broken at the specially weakened part. The following fish were represented in this haul:—Schnapper, parrot-fish, boar-fish, longfin, John Dory, saw-fish, Port Jackson shark, and leather jacket. A notable fact in connection with this haul was the discovery made when the schnapper kind were being gutted. In every case where the bream and squire were opened they were found to be full of roe and milt, evidently proving that these fish do not require to arrive at the stage of a schnapper before their powers or reproduction can be used. It has been asserted by the most competent authorities that the red-bream at his stage of growth never spawned, and the same opinion existed in regard to the fish at a later stage, namely that of a squire. The facts brought to our knowledge by opening these fish and subsequent specimens of the same class prove that the conclusions arrived at in the past were erroneous.

SIXTEENTH HAUL.

The trawl was again lowered at 3 p.m. in 72 fathoms, the soundings giving fine sand, and was raised at 6 p.m. in 90 fathoms, the soundings giving fine sand, gravel, and shell. The result of this haul was nil, and this is accounted for by the fact of the cod-end of the net having got over the foot-rope in shooting, owing to the strong current which prevailed, and the unsuitability of the boat.

SEVENTEENTH HAUL.

On Monday, the 28th, we determined upon going further north, and accordingly lowered the net on the grounds off between Broughton Island and Seal Rocks. The trawl was lowered at 6 a.m. in 29 fathoms, the soundings giving sand and shell, and raised at 8.40 a.m. in 48 fathoms, the soundings giving sand, mud, and shell. The result was that the following species were represented:—Whiting, horse-mackerel, John Dory, pipe-fish, yellowtail, bellows-fish, skate, gurnard, stingray, leather-jacket, and porcupine.

EIGHTEENTH HAUL.

The trawl was lowered again at 2.15 p.m. in 32 fathoms, the soundings giving gray sand and shell. It was raised at 2.40 p.m. in 32 fathoms, the soundings giving sand and shell. The shortness of this haul is accounted for by the fact of the trawl having become caught. No damage was done, however, but the weather was so boisterous and unsuitable that we determined upon putting into Port Stephens for shelter. The result of the haul only produced the following species:—Two old wives and a box-fish.

NINETEENTH HAUL.

On Tuesday, 1st March, the trawl was lowered off Port Stephens at 10.15 a.m. in 35 fathoms, the soundings giving mud, gravel, and shell, and was raised at 12.15 p.m. in 58 fathoms, the soundings giving mud. The result of this haul was nil, the same cause being responsible as previously stated, namely the unsuitability of the boat for shooting the net. Besides this it may be mentioned that the net used on this occasion was a new one, and it was the first time it had been put in the water, and this fact may be responsible for it not having gripped the bottom.

TWENTIETH HAUL.

We again lowered the trawl at 1 p.m. off Morna Head, going south, in 32 fathoms, the soundings giving gravel and mud, and raised it at 1.30 p.m. on account of its having become caught. No great damage was done to the net, excepting a tear here and there. The following species were represented:—Whiting, gurnard, skate, bat-ray, leather-jacket, small shark, and bellows-fish. Owing to the state of the weather it was determined to seek shelter again, and for this purpose we went into Port Stephens, the opportunity being taken for repairing the net.

TWENTY-FIRST

TWENTY-FIRST HAUL.

On Wednesday, the 2nd, we left Port Stephens at 6 a.m., and commenced operations off Newcastle Bight, by lowering the trawl at 8.15 a.m. in 28 fathoms, the soundings giving clean gray sand. It was raised in 42 fathoms at 10 a.m., the soundings giving soft mud. The result of this haul was estimated to be about three-quarters of a ton of fish, consisting of whiting, flounder, John Dory, flathead, schnapper, nannegai, gurnard, red mullet, skate, saury, stingray, leather-jacket, box-fish, dog-fish, morwong, one giant-ray weighing 160 lb., bellows-fish, percis, crabs, and a quantity of squid.

TWENTY-SECOND HAUL.

Still continuing in the Newcastle Bight, the trawl was lowered at 10.30 a.m. in 42 fathoms, the soundings giving mud. It was raised at 1.15 p.m. in 26 fathoms, the soundings giving sharp sand. This trial proved to be better than even the last, as it was estimated that the cod-end contained over a ton of fish. The following species were represented:—Red mullet, nannegai, bull's-eye, whiting, flathead, skate, old wife, flounder, gurnard, John Dory, bat-ray, shovel-nose ray, leather-jacket, prawns, boar-fish, Port Jackson shark, white shark, one cray-fish, and a giant-ray estimated to weight 2 cwt.

TWENTY-THIRD HAUL.

Still continuing in the Newcastle Bight, the trawl was lowered at 2 p.m. in 20 fathoms, the soundings giving sand, and was raised at 3.45 p.m. in 16 fathoms, the soundings giving coarse sand and gravel. The result of this haul was very satisfactory, inasmuch as over half a ton of fish were caught. The following species were represented:—Sole, flounder, schnapper, John Dory, tailor, teraglin, flathead, saurus, nannegai, whiting, silver bream, gurnard, stingray, stargazer, saw-fish, toado, batray, fortescue, bulls-eye, squid, and one shark about 7 feet long. On the completion of this haul, Newcastle was sought, and we remained there over the night. On the following day an attempt was made to continue the experiments off Newcastle, but unfortunately the sea was too rough, and rendered it necessary to return to port again.

TWENTY-FOURTH HAUL.

On the 4th March another attempt was made, the trawl being lowered off Nobby's at 7 a.m. in 21 fathoms, the soundings giving fine sand and mud. It was raised at 9 a.m. in 48 fathoms, the soundings giving soft mud. The result of this haul was very satisfactory, inasmuch as the following species were well represented:—Whiting, gurnard, flathead, red mullet, banded sole, flounder, nannegai, yellowtail, beardy, skate, angel shark, stingray, fiddler, shovel-nose ray, numb-fish, batray, Port Jackson shark, small sharks, saw-fish, wobbegong shark, box-fish, and squid.

TWENTY-FIFTH HAUL.

The trawl was lowered again at 9.30 a.m. in 48 fathoms, the soundings giving soft mud, and was raised at 10.15 a.m. in 42 fathoms, the soundings again giving soft mud. The trawl, after being down for three-quarters of an hour, became caught on some sunken wreckage. This was proved to be the case by the fact that a ship's plank with muntz-metal sheeting attached, and an anchor with a fathom of chain weighing about 10 or 11 cwt., were brought on board. Some two hours were occupied in ridding the net of these obstacles, and the net suffered in consequence, but the repairs were easily effected. These articles are supposed to have belonged to the "Alhambra," which was wrecked on or about this spot about 12 years ago. The observations taken by the Captain of the "Thetis" go to prove that it was the wreck of the above-named boat we had become foul of. The result of this haul showed the following species to be represented:—Whiting, gurnard, John Dory, teraglin, flathead, nannegai, skate, flounder, fiddler, batray, numb-fish, rock-cod, saw-fish, and sting-ray.

TWENTY-SIXTH HAUL.

The trawl was lowered between Newcastle and Red Head at 1 p.m. in 32 fathoms, the soundings giving soft mud, and was raised at 3 p.m. in 20 fathoms, the soundings giving fine sand. The result of this haul was that the following species were represented:—Whiting, flounder, John Dory, flathead, gurnard, old wife, pilehard, yellowtail, skate, leather-jacket (small), box-fish, saw-fish, batray, shovel-nose ray, stingray, toado, Port Jackson shark, crabs, and squid.

TWENTY-SEVENTH HAUL.

On Saturday, the 5th March, the trawl was lowered off Crowdy Head, near the Manning River Bight, at 7.40 a.m., in 22 fathoms, the soundings giving fine sand, and was raised at 9.40 a.m. in 23 fathoms, the soundings giving fine sand. The distance trawled was about 6 miles, and the following species were represented:—Whiting, flounder, gurnard, flathead, skate, red mullet, horse-mackerel, toado, fiddler, stingray, shovel-nose ray, stone-fish, and leather-jacket (small).

TWENTY-EIGHTH

TWENTY-EIGHTH HAUL.

The trawl was lowered off the Manning River Bight, going south-east, at 10.10 a.m. in 23 fathoms, the soundings giving fine sand, and was raised at 12.10 p.m. in 30 fathoms, the soundings giving fine sand. The distance trawled was about 6 miles, and the following species were represented:—Flounder, flathead, gurnard, skate, star-gazer, stingray, leather-jacket (small), fiddler, crayfish, and squid.

TWENTY-NINTH HAUL.

Operations still being conducted in a south-easterly direction off the Manning Bight, the trawl was lowered at 12.55 p.m. in 16 fathoms, the soundings giving sand, and was raised almost immediately after it had been shot, on account of indications showing coarse ground. When the net was hauled up, it was found that the foot-rope was broken at the point where it is specially weakened. No other damage was done, and though the net was only down five minutes, the following species were caught:—Red-mullet, schnapper, and mailed-fish. A sounding was taken immediately the net was hauled on board, and it indicated a sandy bottom. The trawl was lowered again about the same locality at 2 p.m. in 16 fathoms, and there being again evidence of foul ground, it was hauled up five minutes afterwards. The result of this haul was nil, and the damage that was done was confined to the otter boards being injured. From observations that were made, and from the use of the hand-line, it transpired that the Manning Bight contains patches of rocks, but there is not the slightest doubt that if a suitable steamer had been available, operations could have been carried on successfully in some portions of the Bight. However, the weather was so terribly bad that it was dangerous to navigation to approach any closer than the 16-fathom line. Shelter was sought for the night in Hawke's Bay.

THIRTIETH HAUL.

A start was made on the 6th March by lowering the trawl off Cape Hawke at 8 a.m. in 35 fathoms, the soundings giving sharp brown sand. After leaving it down for five minutes, the net showed signs of being hauled over rough ground; consequently it was hauled up, no damage having been done. The result was that gurnard and red mullet were represented.

THIRTY-FIRST HAUL.

It was lowered again at 9.40 a.m. in 27 fathoms, the soundings giving brown sand, and was raised ten minutes later in 25 fathoms, the soundings giving sharp sand. The result of this haul was that gurnard, flounder, and skate were represented.

THIRTY-SECOND HAUL.

The trawl was lowered again in a shallower depth off Cape Hawke, and trawled south along the bight. It was lowered at 12 o'clock noon in 16 fathoms, the soundings giving fine sand, and was raised at 1.50 p.m. in 12 fathoms, the soundings giving sharp sand. The result of this haul was that the following species were represented:—Flounder, sole, gurnard, skate, flathead, stingray (small), and Port Jackson shark. The distance trawled was about 5½ miles. The weather becoming more boisterous, it was decided to make for Port Stephens, where we spent the night, leaving there at 6 a.m. on the 7th to trawl in a southerly direction.

THIRTY-THIRD HAUL.

We lowered the trawl in the Newcastle Bight at 8 a.m. in 22 fathoms, the soundings giving sand, mud, and shell. It was raised at 10.10 a.m. in 24 fathoms, the soundings giving sand and shell. The sea was rough, and a strong south-easterly wind blowing. However, the haul was a very satisfactory one, inasmuch as the edible portion of the undermentioned species were well represented:—Flounder, John Dory, schnapper, whiting, tailor, skate, gurnard, flathead, box-fish, stingray (two or three), star-gazer, fiddler, batray, numb-fish, crawfish, crabs, and squid. It came on to blow so heavily from the south-east that it was determined to make for Broken Bay, where we stayed over the night. It was then found necessary to make Sydney, for the purpose of obtaining supplies for the vessel, and we, therefore, left Broken Bay at 4 a.m. in the morning, and after coaling and receiving supplies, we left again on the 10th to conduct operations in the waters south of Port Jackson.

THIRTY-FOURTH HAUL.

We lowered the trawl at 4.20 p.m. in 35 fathoms, the soundings giving fine brown sand, and it was raised at 5.25 p.m. in 41 fathoms, the soundings giving fine sand and shell. The distance trawled was about 3 miles, and the trawl having shown signs of having met with an obstruction, it was hauled up earlier than usual. The result of the haul was that the following species were represented:—John Dory, skate, flathead, gurnard, boar-fish, stingray, Port Jackson shark, box-fish, and saw-fish.

THIRTY-FIFTH

THIRTY-FIFTH HAUL.

As it was determined to make Port Hacking that evening, a move was made in that direction, and the trawl was lowered at 9.15 p.m. in 33 fathoms, the soundings giving fine gray sand. It was raised at 11.15 p.m. in 38 fathoms, the soundings giving fine gray sand. The result of this haul was that the following species were represented:—Flounder, John Dory, flathead, gurnard, nannegai, skate, chimera (small rare sharks), stingray, shovel-nose ray, crab, and squid.

THIRTY-SIXTH HAUL.

On the 11th March the trawl was again lowered off Port Hacking at 8.55 a.m. in 25 fathoms, the soundings giving fine gray sand. The spot chosen for the shooting of the net was evidently in too close proximity to the headland, for the net was no sooner over than it became caught. The haul was not without result, however, as John Dory were represented. The net was slightly torn, so we went into Botany Bay for repairs.

THIRTY-SEVENTH HAUL.

After the repairs had been effected, the trawl was lowered off Botany Bay at 5.20 p.m. in 50 fathoms, the soundings giving soft mud, and was dragged in a southerly direction till 7.30 p.m., when it was raised in 50 fathoms, the soundings giving soft gray sand. The result of this haul was that the following species were represented, the edible portion being well represented:—John Dory, flounder, flathead, skate, gurnard, cucumber-fish, chimera, stingray (6), crab, and squid (no leather-jackets).

THIRTY-EIGHTH HAUL.

The trawl was lowered off Port Hacking on the 12th March at 7 a.m. in 46 fathoms, the soundings giving sand and mud. The sea was rather rough, with a strong wind from the south. The trawl was raised at 9 a.m. in 55 fathoms, the soundings giving mud and small shell, the distance trawled being about 5 miles. The result was again very satisfactory, more particularly as to the quantity of John Dory. The following species were represented:—John Dory, flounder, whiting, gurnard, flathead, skate, cucumber-fish, boar-fish, stingray, stargazer, bellows-fish, leather-jacket (1), prawns, crabs, and squid.

THIRTY-NINTH HAUL.

It was lowered again off Marlee Head, going south, at 9.50 a.m. in 50 fathoms, the soundings giving sand and mud, and was raised in 50 fathoms, the soundings giving soft mud. The distance trawled was about 5½ miles, and the result was again very satisfactory, more particularly in regard to the quantity of John Dory. The following species were represented:—John Dory, flathead, gurnard, whiting, skate, flounder, red mullet, yellowtail, stingray, angel shark, saw-fish, dog-fish, fiddler, and leather-jacket (2).

FORTIETH HAUL.

Still going south, the trawl was lowered at 12.45 p.m. off Wattamolla in 50 fathoms, the soundings giving mud. After trawling for five or ten minutes some slight obstruction was felt, and the trawl was hauled up. No serious damage was done to the net, excepting that which was necessary in order to release a 4 or 5-cwt. boulder, which had become foul of the trawl. Owing to the unsuitability of the arrangements in connection with the landing of the trawl, it was necessary to cut the net in order to allow the stone to go over. Another attempt was made by lowering the trawl at 3 p.m. in 56 fathoms, the soundings giving soft mud. The direction in which it was intended to trawl was north, off Wattamolla. However, it was found necessary to haul in the trawl again, inasmuch as it was reported that one of the boiler tubes had burst, and operations could not therefore be proceeded with. We returned to Port Hacking for repairs, which were carried out by the engineers.

FORTY-FIRST HAUL.

On Sunday, the 13th, we left Port Hacking at 6 a.m. and lowered the trawl at 7 a.m. off Jibbon in 60 fathoms, the soundings giving soft mud. We trawled for about 6 miles, and raised the trawl about 9 a.m. in 71 fathoms, the soundings giving mud, sand, and shell. The following species were represented:—John Dory, flounder, flathead, gurnard, percis, cucumber-fish, crabs, and squid. It may be noted that during this haul there were no stingrays or leather-jackets caught.

FORTY-SECOND HAUL.

It was lowered again off Wattamolla, going south towards Bulli, at 9.35 a.m. in 71 fathoms, the soundings giving mud, and after trawling about 6 miles it was raised at 11.50 a.m. in 72 fathoms, the soundings giving coarse sand and gravel. The following species were found to be represented:—John Dory, flounder, nannegai, flathead, gurnard, rock cod, red gurnard perch, skate, banded percis, morwong, boar-fish, long fin, cucumber-fish, stonelifter, stingray, angel shark, sea horse, crayfish, crawfish, and squid. It may be noted that there were no leather-jackets in this haul.

FORTY-THIRD

FORTY-THIRD HAUL.

After steaming north to a point off Maroubra Bay, the trawl was shot at 2:15 p.m., the course taken being in a southerly direction towards Port Hacking, in 43 fathoms, the soundings giving fine gray sand. It was raised at 4:20 p.m. in 66 fathoms, the soundings giving soft mud. The distance trawled was about 6 miles. The result of the haul was a very satisfactory one indeed, inasmuch as large quantities of the edible portion of the following species were represented:—John Dory, flounder, gurnard, flathead, cucumber-fish, skate, stonelifter, stingray, leather-jacket (3), crabs, and squid. On the completion of this haul it was reported that one of the boiler-tubes had burst, necessitating permanent repairs to be made. Consequently a return was made to Sydney, and advantage was taken of the opportunity to obtain coal and other supplies, as well as to make permanent repairs to the boiler.

FORTY-FOURTH HAUL.

A fresh start was made on the 15th March, when the trawl was lowered off Bondi, a southerly direction being taken. It was shot at 4:20 p.m. in 49 fathoms, the soundings giving fine gray sand, and after trawling for about 3 miles an obstruction was felt, which rendered it necessary to bring the trawl on board. This was at 5:10 p.m., in 53 fathoms. The haul was not without result, as the following species were represented:—Flounder, flathead, gurnard, and boar-fish. No damage was done to the net, and after having sheltered in Botany Bay for the night, a start was made again on the 16th March.

FORTY-FIFTH HAUL.

The trawl was lowered off Cape Solander, and towed in a southerly direction to off Marlee Head. It was lowered at 6:50 a.m. in 55 fathoms, the soundings giving soft mud, and was raised at 8:50 a.m. in 66 fathoms, the soundings giving soft mud. Although the indications had shown that the trawl was well on the bottom, it was found that it had become foul through the foot-rope getting twisted with the head-line, and completely closing the mouth. The result of this haul was nil.

FORTY-SIXTH HAUL.

In order to test this ground again the trawl was lowered at 9:10 a.m. off Marlee Head (a northerly direction being taken) in 66 fathoms, the soundings giving soft mud, and was raised at 11:10 a.m. in 50 fathoms, the soundings giving mud and sand. The distance trawled was about 3 miles. The result showed the following species represented:—John Dory, flathead, flounder, skate, gurnard, cucumber-fish, chimera, angel shark, leather-jacket (1), saw-fish, crabs, and squid. It may be noted that during the progress of this haul a great deal of slaughter-house refuse was encountered, a large quantity being subsequently picked up in the trawl. This appears to be conclusive evidence of the fact that this refuse is not taken far enough out to sea before it is deposited, as observations show that it has been brought along the coast with the current. It would be hard to discover a more sickening spectacle, as well as a more objectionable one, as the stench from it had the effect of causing one or two of the hands to retch. On the completion of this haul it was found absolutely necessary that the net should be washed, and for that purpose we went into Botany Bay.

FORTY-SEVENTH HAUL.

The trawl was lowered off Bulgo Head, and the net was towed in a southerly direction. It was lowered at 3:50 p.m. in 63 fathoms, the soundings giving mud, sand, and shell, and was raised at 5 p.m. in 57 fathoms, the soundings giving rough bottom. During this haul the net met with an obstruction, which parted the foot-rope at the specially weakened portion. The result of this haul showed the following species represented:—John Dory, gurnard, banded percis, flathead, flounder, boar-fish, stingray (1), cucumber-fish, and squid. Again the abominable slaughter-house refuse was in evidence, and a good portion came up in the cod-end of the net. This locality would be about 10 miles from that over which the trawl was drawn just previously, clearly showing that this refuse deposits itself in a southerly direction along the coast for many miles.

FORTY-EIGHTH HAUL.

On the 17th March the sea was too rough to attempt trawling, consequently it was not until the 18th that operations were again commenced by lowering the trawl off Wollongong at 7:25 a.m. in 56 fathoms, the soundings giving mud, gravel, and shell. It was raised again at 8:30 a.m. in 55 fathoms, the soundings giving rough bottom. The following species were represented:—John Dory, gurnard, flounder, flathead, long fin, nannegai, morwong, gurnard perch,

perch, cucumber-fish, rock-cod, red mullet, stingray, angel shark, walking-fish, skate, boar-fish, and dog-fish. During the progress of this haul an obstruction was met with which caused the foot-rope to part and the cod-end of the net to be slightly torn. It may be specially mentioned that the quality of the fish caught during this haul was very prime.

FORTY-NINTH HAUL.

The trawl was lowered again about nine miles off Wollongong and towed in a south-westerly direction. It was shot at 10.25 a.m. in 75 fathoms, the soundings giving mud and small stones, and was raised at 12.30 p.m. in 63 fathoms, the soundings giving fine sand and mud. The result of this haul showed the following species to be represented:—Flathead, gurnard, flounder, skate, cucumber-fish, stingray, dog-fish, rock-cod, stargazer, crabs, and crawfish. It may be mentioned that during the progress of this haul a great strain was noticed on the warps. This would seem to indicate that the otter boards and foot-rope were gripping the bottom very firmly; so much so, indeed, that the cod-end contained a great quantity of the bottom which had been trawled over. This shows clearly that the bottom in that locality is very open, consequently it would necessitate a slight adjustment of the boards in order to prevent a recurrence on any future occasion when operations are being conducted. It took some considerable time for the net to be brought on board, as it is estimated it contained some tons of sand and mud when first raised, and sufficient time had to be allowed for this material to free itself from the cod-end of the net. The immense strain on the trawl, which was intensified by the unsuitability of the boat, proved to have caused some slight damage to the net, and in order that the necessary repairs might be effected the Port of Kiama was sought.

FIFTIETH HAUL.

Leaving again on the 19th March, the waters south of Kiama were explored by lowering the trawl off the Shoalhaven Bight and towing it in a south-south-westerly direction. It was lowered at 7.30 a.m. in 18 fathoms, the soundings giving fine gray sand, and was raised at 9.30 a.m. in 15 fathoms, the soundings giving fine sand. This haul proved very gratifying, inasmuch as the following edible species were well represented:—John Dory, whiting, flounder, sole, flathead, boar-fish, and prawns. Besides these the following non-edible fish were caught:—Angel shark, Port Jackson shark, batray, stingray, fiddler, and box-fish. One particular feature connected with this trial was the fact of the capture of large soles and flounder, also a fine sample of prawns.

FIFTY-FIRST HAUL.

Following up the grounds off the Shoalhaven Bight, and still proceeding in a south-south-westerly direction to a point where a north-easterly course was steered, the trawl was lowered at 9.45 a.m. in 15 fathoms, the soundings giving fine sand, and was raised at 11.45 a.m. in 15 fathoms, the soundings giving fine sand. During the progress of this haul the following species were represented:—Sole (three species), flounder, flathead, whiting, gurnard, hammerheaded shark, Port Jackson shark, batray, stingray, shovelnose-ray, toado, bullrout, and prawns. It may be mentioned in connection with this haul that large soles and flounder again predominated, also large prawns.

FIFTY-SECOND HAUL.

Operations were still continued in the Shoalhaven Bight by steering a north-easterly course, and lowering the trawl at 12.45 p.m. in 19 fathoms, the soundings giving fine sand, and raising it at 2.15 p.m. in 20 fathoms, the soundings giving mud and gravel. The following species were represented:—Sole, flounder, flathead, whiting, gurnard, rock-cod, John Dory, schnapper, trumpeter perch, stingray, batray, Port Jackson shark, angel shark, numb-fish, box-fish, leather-jacket (1), prawns, and squid. It may be mentioned that again the soles and flounder, and also the flathead, were very large in size.

FIFTY-THIRD HAUL.

Still continuing operations in the Shoalhaven Bight by going about 5 or 6 miles further south, the net was lowered at 2.55 p.m. in 23 fathoms, and was raised owing to an obstruction at 3.5 p.m. in 23 fathoms, the soundings giving on both occasions sharp sand. The result of this haul showed the following species represented:—Schnapper, trumpeter, Sergeant Baker, skate, batray, and leather-jacket. By fishing this ground with the hand-line it was ascertained that it was, in all probability, a reef running out from King Horn Head. During the progress of this haul the net was torn, and, while it was being repaired, a course was steered to Jervis Bay.

FIFTY-FOURTH

FIFTY-FOURTH HAUL.

The net was lowered at 6.30 a.m. on the 20th March inside Jervis Bay in 10 fathoms, the soundings giving fine white sand, and was raised at 8.35 a.m. in 11 fathoms, the soundings giving fine white sand. The following species were represented:—Sole, flounder, flathead, gurnard, fiddler, angel shark, stingray, batray, leather-jacket, box-fish, and numb-fish. The ground trawled over was about 5 miles long, and the edible fish caught were of fine quality and size. During the progress of this haul a large quantity of small red seaweed was met with, which became entangled in the meshes of the net, and considerable time was occupied in bringing the trawl on board, and afterwards in freeing this seaweed from it.

FIFTY-FIFTH HAUL.

After this a course was steered north-east to off Crookhaven Heads, and the trawl was lowered at 5.15 p.m. in 15 fathoms, the soundings giving fine sand, and was raised at 6.25 p.m. in 15 fathoms. The necessity for raising the trawl so soon after having been lowered was brought about by the fact of its becoming fouled on rough bottom, and when brought on board it contained two large basalt boulders, weighing between 6 and 7 cwt. The following species were represented:—Flounder, flathead, red rock-cod, stingray, batray, numb-fish, and fiddler.

FIFTY-SIXTH HAUL.

Continuing operations in a northerly direction, the trawl was lowered off Botany Bay, about 8 miles east, at 7.55 a.m. on the 21st March in 79 fathoms, the soundings giving coarse sand, and was raised at 10 a.m. in 79 fathoms, the soundings giving gravel and shell. The result of this haul showed the following species to be represented:—John Dory, boar-fish, flounder, flathead, gurnard, skate, gurnard perch, long fin, percis, cucumber-fish, stingray, batray, angel shark, sea-horse, and squid.

FIFTY-SEVENTH HAUL.

It was lowered again at 11.30 a.m. off Marlee Head in 59 fathoms, the soundings giving mud. It was towed in a southerly direction, and was raised at 1.50 p.m. in 54 fathoms, the soundings giving mud. The result of this haul was that the following species were represented:—John Dory, flounder, boar-fish, gurnard, saw-fish, angel shark, and leather-jacket. It may be mentioned that the net when hauled on board showed evidences of having contained slaughter-house refuse, although it had freed itself of it during its progress through the water.

FIFTY-EIGHTH HAUL.

Again the trawl was lowered off Port Hacking, at 3.10 p.m., in 28 fathoms, the soundings giving sand and shell, and it was raised at 5 p.m., in 42 fathoms, the soundings giving mud and shell. The result of this haul was that the following species were represented:—John Dory, gurnard, morwong, flathead, skate, whiting, flounder, stingray, batray, and squid. Amongst the fish was one giant ray, weighing 180 lb.

FIFTY-NINTH HAUL.

The final haul connected with the expedition was made on the 25th March, when the trawl was lowered off Narrabeen, at 4.30 p.m., in 30 fathoms, the soundings giving sharp sand, being raised at 6.20 p.m., in 32 fathoms, the soundings giving sand. The distance trawled was about 5 miles, and the following species were represented:—Flathead, gurnard, flounder, skate, stingray, shovel-nose ray, box-fish, fiddler, stargazer, Port Jackson shark, leather-jacket, crabs, and a quantity of squid.

The above haul was made for the purpose of not alone testing the grounds off Narrabeen, but in order to obtain a supply of fish, to be consumed on the trip to Lord Howe Island, where it was intended also to carry out experiments. Unfortunately, owing to the heavy weather prevailing and the unsuitability of the ocean floor as shown by the soundings taken, the trawl was not shot, it being deemed advisable not to risk valuable gear by so doing. It may be mentioned that from observations made it would appear that there is but a limited area around the island that would be available for carrying on trawling operations. Though these were the conclusions come to in regard to the possibility of trawling being carried on off the coast of Lord Howe Island, an investigation into the fisheries was not neglected, for on several occasions the hand-line and the seine were used for the purpose of testing the capabilities of the waters. The experiments showed the waters there to be teeming with species of very fine edible fish, which can be caught by the modes just mentioned, and capable of being utilised in many ways. Amongst the species caught were flounder, garfish, blue-fish, salmon, sea mullet, rock-cod, and kingfish.

RECORD of Trawling Observations made on board s.s. "Thetis" during 1898.

Haul	Date	Place.	Time trawl lowered.	Time trawl raised.	Depth where lowered. Fathoms.	Depth where raised. Fathoms.	Distance covered. Miles (about).	Result.	Description of grounds trawled over.
1	19 Feb.	Off Broken Bay	7:14 a.m.	9:30 a.m.	20	32	5	Fish	From gravel and sand to fine sand.
2	19 "	do	11:20 a.m.	1:20 p.m.	32	40	5	do	From sand to fine sand.
3	21 "	Off Barranjoey	6:53 a.m.	9 a.m.	31	55	5	Nil...	From sand and shell to sand, shell, and mud.
4	21 "	do E.	9:30 a.m.	11:30 a.m.	55	84	5	Fish	From sand, shell, and mud to mud and shell.
5	21 "	Off Broken Bay, E. by S.	12:45 p.m.	2:30 p.m.	84	67	4½	do	From mud to soft mud.
6	21 "	do S.E.	3:10 p.m.	6:30 p.m.	67	80	7½	do	From soft mud to coarse sand.
7	21 "	Between Broken Bay and Nar-rabeen.	7 p.m.	10:40 p.m.	69	62	7½	do	From coarse sand to fine sand.
8	22 "	Off Broken Bay, N.	6:15 a.m.	9 a.m.	25	28	7	do	From sand to coarse sand and gravel.
9	22 "	Off Cape Three-points, N.	9:45 a.m.	12 noon	28	28	5½	do	From sand to brown sand.
10	22 "	Off Cape Three-points, towards Tuggerah.	1:30 p.m.	5 p.m.	28	28	8	do	From sand to fine sand.
11	22 "	Off Tuggerah, N. to Bungaree Norah.	6:5 p.m.	11 p.m.	28	34	9	do	From sand to sand.
12	23 "	Off Cape Three-points, towards Port Jackson.	12:30 a.m.	5:30 a.m.	34	23	10½	do	From sand to fine sand.
13	25 "	Off Cape Three-points	7 p.m.	9 p.m.	41	51	5	do	From mud and sand to mud and shell.
14	27 "	Off Bungaree Norah	7:15 a.m.	9:45 a.m.	25	32	5½	Nil...	From sharp brown sand and shell to sharp sand, gravel, and shell.
15	27 "	Off Bird Island, E.	10:20 a.m.	12 noon	32	45	4	Fish	Sharp sand, gravel, and shell to fine sand.
16	27 "	Off Bird Island, E.	3 p.m.	6 p.m.	72	90	4	Nil...	From fine sand to fine sand, gravel, and shell.
17	28 "	Between Broughton Island and Seal Rocks.	6 a.m.	8:40 a.m.	29	40	5½	Fish	From sand and shell to sand, mud, and shell.
18	28 "	Do do	2:15 p.m.	2:40 p.m.	32	32	½	do	From gray sand and shell to sand and shell.
19	1 Mar.	Off Port Stephens	10:15 a.m.	12:15 p.m.	35	58	5	Nil	From mud, gravel, and shell to mud.
20	1 "	Off Morna Head, S.	1 p.m.	1:30 p.m.	32	32	½	Fish	From gravel and mud to rough bottom.
21	2 "	Off Newcastle Bight	8:15 a.m.	10 a.m.	28	42	4½	do	From clean gray sand to soft mud.
22	2 "	Do do	10:30 a.m.	1:15 p.m.	42	26	4	do	From mud to sharp sand.
23	2 "	Do do	2 p.m.	3:45 p.m.	20	16	4½	do	From sand to coarse sand and gravel.
24	4 "	Off Nobby's	7 a.m.	9 a.m.	21	48	5	do	From sand and mud to soft mud.
25	4 "	Do	9:30 a.m.	10:15 a.m.	45	42	3	Nil	From soft mud to soft mud.
26	4 "	Between Newcastle and Red Head.	1 p.m.	3 p.m.	32	20	5	Fish	From soft mud to fine sand.
27	5 "	Off Crowdy Head	7:40 a.m.	9:40 a.m.	22	23	6	do	From fine sand to fine sand.
28	5 "	Off Manning River Bight	10:10 a.m.	12:10 p.m.	23	30	6	do	" "
29	5 "	Do do, S.E.	12:55 p.m.	2:15 p.m.	16	16	½	do	From sand to rough bottom.
30	6 "	Off Cape Hawke	8 a.m.	8:5 a.m.	35	35	do	do	From sharp brown sand to rough bottom
31	6 "	Off Cape Hawke and Sugar-loaf Point, S.	9:40 a.m.	9:50 a.m.	27	25	¾	do	From brown sand to sharp sand.
32	6 "	do do	12 noon	1:50 p.m.	16	12	5½	do	From sand to sharp sand.
33	7 "	In Newcastle Bight	8 a.m.	10:10 a.m.	22	24	6	do	From sand, mud, and shell to sand and shell.
34	10 "	Off Port Jackson, S.	4:20 p.m.	5:25 p.m.	35	41	3	do	From fine brown sand to fine sand and shell
35	10 "	Off Port Hacking, E. round to W.	9:15 p.m.	11:15 p.m.	35	38	6	do	From fine gray sand to gray sand.
36	11 "	Off Port Hacking	8:55 a.m.	9 a.m.	25	25	½	do	Fine gray sand to fine gray sand.
37	11 "	Off Botany Bay	5:30 p.m.	7:30 p.m.	50	50	5½	do	From soft mud to soft gray sand.
38	12 "	Off Port Hacking	7 a.m.	9 a.m.	46	55	5	do	From sand and mud to mud and small shell.
39	12 "	Off Marlee Head	9:50 a.m.	12 noon	50	50	5½	do	From sand and mud to soft mud.
40	12 "	Off Wattamolla	12:45 p.m.	3:5 p.m.	50	50	¾	Nil...	From mud to mud.
41	13 "	Off Jibbon	7 a.m.	9 a.m.	60	71	6	Fish	From soft mud to mud, sand, and shell.
42	13 "	Off Wattamolla, S. towards Bulli.	9:35 a.m.	11:50 a.m.	71	72	6	do	From mud to coarse sand and gravel.
43	13 "	Off Maroubra Bay, towards Port Hacking.	2:15 p.m.	4:20 p.m.	43	66	6	do	From fine gray sand to soft mud.
44	15 "	Off Bondi, S.	4:20 p.m.	5:10 p.m.	49	53	3	do	From fine gray sand to rough ground.
45	16 "	Off Cape Solander to off Marlee Head.	6:50 a.m.	8:50 a.m.	55	66	6	Nil...	From mud to soft mud.
46	16 "	Off Marlee Head, N.	9:10 a.m.	11:10 a.m.	66	50	3	Fish	From soft mud to mud and sand.
47	16 "	Off Bulgo Head, S.	3:50 p.m.	5 p.m.	63	57	3½	do	From mud, sand, and shell to rough bottom.
48	18 "	Off Wollongong	7:25 a.m.	8:30 a.m.	56	55	3	do	From mud, gravel, and shell to rough bottom.
49	18 "	do	10:25 a.m.	12:30 p.m.	75	63	5	do	From mud and small stones to fine sand and mud.
50	19 "	Off Shoalhaven Bight, S.S.W.	7:30 a.m.	9:30 a.m.	18	15	5	do	From fine gray sand to fine sand.
51	19 "	do do and then N.E.	9:45 a.m.	11:45 a.m.	15	15	5	do	From fine sand to fine sand.
52	19 "	do N.E.	12:45 p.m.	2:15 p.m.	19	20	4½	do	From fine sand to sand and gravel.
53	19 "	do (further south)...	2:55 p.m.	3:5 p.m.	23	23	3	do	From sharp sand to sharp sand.
54	20 "	In Jervis Bay	6:30 a.m.	8:35 a.m.	10	11	5½	do	From fine white sand to fine white sand.
55	20 "	Off Crookhaven Heads	5:15 p.m.	6:25 p.m.	15	15	3	do	From fine sand to rough bottom.
56	21 "	Off Botany Bay, 8 miles E.	7:55 a.m.	10 a.m.	79	79	6	do	From coarse sand to gravel and shell.
57	21 "	Off Marlee Head	11:30 a.m.	1:50 p.m.	59	54	6½	do	From mud to mud.
58	21 "	Off Port Hacking	3:10 p.m.	5 p.m.	28	42	4½	do	From sand and shell to mud and shell.
59	25 "	Off Narrabeen	4:30 p.m.	6:20 p.m.	30	32	5	do	From sharp sand to sand.

TRAWLING MASTER'S REPORT.

To the Honorable J. N. Brunker, M.P., Chief Secretary,—

Sir,

I have the honor to submit to you my report in connection with the recent trawling experiments, carried out under the superintendence of Mr. Frank Farnell, M.L.A., in the waters off the coast of New South Wales.

I was appointed on the 5th January this year to carry out operations in connection with testing the ocean floor and its suitability for trawling. I was led to understand that it was the intention of the Government to not only equip the steamer, but allow an opportunity for operations being carried on for a period of three months. This, I regret to say, has not been done. Consequently, the time occupied has been only that which was allowed from the time the "Thetis" was fitted up. In all, the actual time absorbed in connection with trawling operations has been five weeks.

Notwithstanding the limited time at my disposal, I am pleased to be able to report that, so far as the experiments have been carried out, I have come to the conclusion that the waters between the Manning River and Jervis Bay, and for a distance of 20 miles from the coast, have proved, beyond expectation, most suitable for trawling operations. When I contrast the difficulties that beset such expeditions in English and other waters, I am inclined to believe that the result of the operations carried on here can be considered unprecedented. I anticipated that I would meet with obstructions, and that very great damage would be done to the fishing nets and gear, but I am glad to say that, when it is taken into account that no nets have been lost and that the whole of the gear remains intact and in good and sound condition now that the expedition is finished, I am justified in believing that further experiments will prove the sea bottom equally suitable for carrying on trawling operations. The results so far speak for themselves, and show what great possibilities there are before the fishing industry if the capture of fish is entered upon by means of steam-trawlers.

Deep-sea trawling being a new departure on this coast, no authentic records are obtainable as to the habits of the fish at different seasons of the year. It might be necessary to obtain this before inducements were held out for people to enter upon the development of the industry on a large scale. I may point out that the time allowed for the recent expedition was hardly sufficient to allow of the making of a more thorough trial, as we were only able to trawl over the same ground once, whereas grounds that were found suitable for trawling should be fished at short intervals, and thus give an opportunity of finding out at what time or season of the year fish abound on any particular ground. A great deal of this work could have been done had the expedition lasted for some time longer, even for the three months which was originally decided upon. Our experiments have proved that, at the time of the year when we were trawling, all the fish were found to frequent the shallow waters, but, owing to the "Thetis" being unsuitable for working inshore grounds at this time of the year, when the strong easterly winds prevail, we were unable to get trials which, in my opinion, would have proved most satisfactory,—for the closer we fished to the shore the larger quantity of valuable fish we were able to catch, such as soles, flounders, &c. I may here point out that on no occasion did we approach the coast nearer than 8 fathoms, and it was only on one occasion that this was done, when the haul proved most valuable and satisfactory. I may state that, owing to the heavy winds and seas we had to encounter during the progress of the experiments, it was not deemed safe or advisable to venture any closer than was done; and it was only on a very calm day that the 8-fathom line was fished. The nearest approach to the shore other than on this occasion was about 15 fathoms.

With regard to the quantity and quality of the fish caught, I consider that the expedition has proved that a deep-sea fishing industry could be well established, provided a proper means of distribution were also established. It must be remembered that my task was simply one to test the ocean floor for trawling operations, and the commercial aspect of the question was not entrusted to me at all. However, I am bound to state that if I had been fishing for a living, even with the disabilities under which we laboured, namely, in connection with the unsuitability of the boat, I think I would have been able to make a commercial success of it, because grounds which were proved to be prolific of fish life, and which gave us splendid hauls, could have been worked over and over again.

I regret to say that opportunity did not afford for testing the surface net. Of course this can easily be accounted for by the fact that the shoal fish, such as the pilchards, do not visit the coast until later in the year. I have no doubt but that a trial in connection with the surface net would prove satisfactory and encouraging.

The conclusions I have come to in connection with the expedition are—

- (1.) That the grounds off the New South Wales coast are most suitable for carrying on trawling operations.
- (2.) That with a properly equipped steam-trawler much more satisfactory progress could be made in connection with any future experiments.
- (3.) That the results prove conclusively to me that there is a large opening and field available for augmenting the supply of fish which now comes to the Sydney market, and my experience of twenty-seven years amongst the steam trawlers convinces me of the foregoing.

I have, &c.,

Sydney, 12th May, 1898.

CARL AUGUST NIELSEN.

REPORT ON THE FISHES.

BY

EDGAR R. WAITE, F.L.S.,

Zoologist to the Australian Museum, Sydney, and Naturalist to the Expedition.

(With twelve Plates.)

By way of introduction, it may be advisable to give some reasons why, as a representative of science, I was instructed to join H.M.C.S. "Thetis" on her recent trawling cruise. The general impression appears to be that my sole object was to secure specimens of natural history for the Australian Museum. Although present for that purpose, other duties were required of me. Mr. Frank Farnell recognises, and he is one of the few who do so, that to be of any real value, investigations should be carried on in a scientific manner, or, in other words, the observations should be, if not exhaustive, at any rate exact. We may be told, for example, that soles and flounders were taken in such a haul, or that gurnards and sharks were secured in another. This, however, conveys but little; many different kinds of soles, and, at least, half-a-dozen flounders, have been recorded from our coast. Some of these are of the highest value, while others may be of indifferent worth. My remarks will, perhaps, bear further emphasis. At mention of the word sole, the common Black Sole of the market (*Synaptura nigra*) will probably be understood; as a matter of fact, two examples only of this species were obtained, it being peculiarly an estuary fish. The sole most commonly taken was the Narrow-banded species (*Solea macleayana*, Pl. ix), smaller, but to my taste, of much better flavour than the Black Sole.

Then again we have five or six kinds of gurnards, but of this number only two are large, the remainder, although much more plentiful, are of comparatively small size. The reason for my having mentioned sharks, in this connection, may not be clear; I will therefore explain that, whereas some sharks are the worst enemies of fish, others feed exclusively upon sea-eggs (*Echinoderms*), and such unconsidered trifles, so that it is necessary to specify the kind of shark. The examples quoted will be sufficient, but there are many other forms, seldom distinguished by the commercial man, and even offering much difficulty to the trained ichthyologist.

The expedition was not, however, undertaken to increase our knowledge of the economy of the fishes; and, beyond their correct identification, it was mainly sought to prove, or disprove, certain contentions as to whether the waters off our coast could be successfully trawled. Also to ascertain, if possible, if trawling could be carried on remuneratively.

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The vessel was not, therefore, fitted out for exact scientific research, and the following notes on the fishes are compiled simply from an examination of such as the trawl alone secured. To know the exact names of the fish with which we are dealing is, of course, necessary, but in order to take advantage, to the full, of such an important source of food, very much more should be learned. We should be acquainted with the habits of the various species, whether they are migratory to any extent, where and at what seasons they breed, if the ova sinks or floats, and whether the different kinds feed upon vegetable substances or are scavengers, carnivorous and predatory, or omnivorous in taste. We should be especially versed in the habits and rate of growth of the fry, and successive kind of enemies which threaten them. A thousand and one other things must be learned by careful and patient study, aided by all the scientific methods of research adopted in Europe and America.

The net of the trawl being intended for economical and experimental purposes, the mesh was very much larger than used on purely scientific expeditions; consequently the smaller organisms among which a zoologist would expect to reap the richest harvest were not obtained. The importance of these smaller organisms is too apt to be overlooked, yet the very existence of all commercial products of the sea depends upon them: from their study a naturalist may hope to tell a fisherman that which he most needs to learn, for the smaller and inedible sorts of fish and the minute animal life, so abundant on the floor of the ocean, become, either directly or indirectly, food for a large number of edible fish.

A microscopic examination of such material might also add to our knowledge of the diseases of fish, for organisms imperceptible to the unaided eye have ruined important industries alike in the sea and on land. To-day the once-flourishing oyster fishery of Southern Queensland is absolutely destroyed by the ravages of an inconspicuous worm. A few years ago the foreshores of Port Jackson were putrid with the carcasses of shell-fish, slain by myriads of infusorian animals (*Glenodinium rubrum*), each of which measured only one-thousandth of an inch in length. This will serve to show how important scientific research is, and what a bearing it has on the economic aspect of our fisheries.

Near the mouth the mesh of the trawl was about 5 inches, and, in consequence, whole basketsful of fish escaped. Indeed, the first indication of a successful haul, on the net nearing the surface, and long before it could be seen, was the large number of dead gurnards rising to the surface, belly upwards, and floating away astern. When whiting had been netted many were lost in this way.

In consequence of the unsuitability of the "Thetis" for trawling, the net had to be passed along the beam to the quarter before it could be got aboard. During this manœuvre quantities of large fish escaped over the ground line. The most valuable kinds lost in this way were Nannygai, Dory, Boar-fish, and Flying and Red Gurnards, but Skate, Leatherjackets, and others also escaped.

Whenever rocks were encountered the fishes obtained were few in number, but on such occasions we reaped a rich harvest of invertebrates, comprising sponges, ascidians, gorgonias, crustaceans, etc. Numerous feather-stars (*Comatula*) were obtained, while in 80 fathoms, off Botany Bay, between 200 and 300 hitherto rare echinoderms were hauled on board, and the trawl contained but little else. As these were indeed desiderata a large number were preserved.

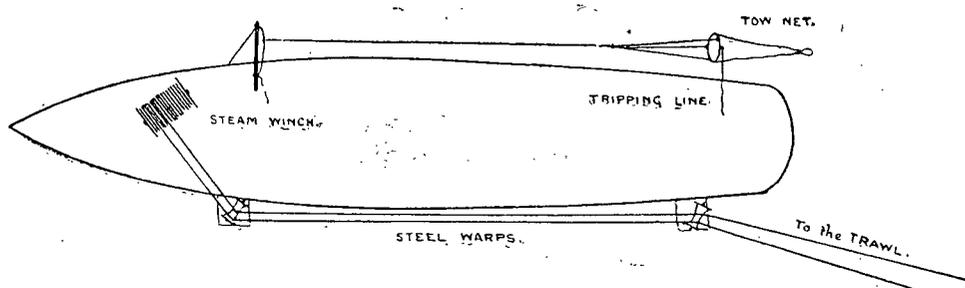
At first the trawl was also worked at night, apparently without any variation in the results, but as such gave double work and prevented sleep, night-work was soon abandoned. On such occasions, however, a most beautiful spectacle was presented by the phosphorescent appearance of the fish as they darted hither and thither within the net, or lay on the deck a glowing mass. At night also it was only a moving streak of phosphorescent light that indicated the presence of a shark silently accompanying the vessel.

Without going into many details, some account of the various collecting implements used may be of interest.

TRAWL.

The type used was that known as the Otter trawl, wherein the mouth of the net is kept distended by means of two large boards—the otters. Our trawler, Captain Nielsen, had introduced several improvements on the usual type of Otter trawl, but as he is, I understand, himself writing a report on the expedition, such need not be referred to here. It may, however, be mentioned that, in place of the usual single warp, two were used, and the advantage of this was on one occasion clearly demonstrated. At station 13 the for'ard warp broke, notwithstanding the fact that it was composed of the best wire-rope, an inch in diameter. Had the net not been held by a second warp, we should have lost everything—an experience not new to me. This double warp does away with
with

with the necessity of a bridle, and, had we been able to pay it out over the stern instead of over the port side, its advantages would have been still further increased. In working an Otter trawl at varying depths some nice adjustment is necessary to ensure the boards always running at the correct angle. In shallow water the warp paid out was about three times the indicated depth, but in deeper water the proportion was lessened in consequence of the greater weight of the warp. If hemp, instead of wire, had been used, much more rope would have been required.



DREDGE.

This consists of an iron frame, to which is attached a net, and the dredges I took aboard were specially designed for collecting the smaller fish, crustaceans, worms, and other forms, which the trawl was not calculated to retain. Having no appliances for running out a separate warp, the dredge had to be attached to the bunt or cod-line of the trawl, and I was so unfortunate that the very first time it was put over, rocks were encountered, and notwithstanding the fact that the frame was constructed of iron bars thicker than a broomstick, the appliance was broken and twisted out of all recognition. This in itself was a small matter, and the duplicate on hand could soon have been attached; it was, however, evident that the dredge had contributed so largely to the damage sustained by the trawl on that occasion, that I could not again think of subjecting it to similar undesirable possibilities. I next tried a bag within the bunt end, and was thus on several occasions enabled to retain some of the mud and sand which, on examination, proves to be rich in invertebrates; but as considerable trouble was entailed in securing and removing the bag, I did not care to try the good nature of our trawlers too frequently.

TOW-NET.

Speaking generally, a tow-net consists of an iron ring, to which is attached some material allowing the water to pass through easily; this is cone-shaped, and a bottle at the smaller end retains the organisms which enter the mouth. A tow-net is designed to secure the pelagic or surface organisms which directly or indirectly become food for fishes. The net is usually let out astern on a line, and so held captive; owing, however, to the comparatively great speed at which we trawled— $2\frac{3}{4}$ to 3 knots—and especially in a choppy sea, or with the current against us, it was found that two men were required to haul the net in. This extra pressure, bringing the speed up to 4, or even more knots, "started" the material, and eventually I lost a net owing to the breakage of the tow-line. In order to avoid this extra pressure, and also to dispense with the services of two ill-spared men, the following plan was tried and succeeded so well that it was ever afterwards adopted. A boom was run out for'ard from the upper deck and the tow-line passed to the quarter, where a tripping-line attached to the rim of the net enabled me to haul it up at any time single-handed.

In fine, bright weather, a half-hour's run was sufficient to quite fill the bottle with *Salpa*, *Velella*, *Physalia*, *Medusa*, and other pelagic forms.

When at anchor, I used a cane-rimmed net, much lighter material, and supported the neck of the bottle with corks; it was thus floated away by the current or the wind, and although passing a much less quantity of water per minute, did good work.

The tow-net was also occasionally run at night, and the phosphorescent organisms, *Copepoda*, *Salpa*, etc., quite illuminated the bottle in which they were received. Every ripple on the water was also lighted with them, but the effect was most brilliant when they were concentrated in the bottle of the tow-net.

THERMOMETERS

THERMOMETERS.

As it was advisable to take such observations as could be readily made, instruments were secured for recording the temperatures of the air, the surface of the water, and the bottom of the sea respectively, the latter, kindly lent by the Government Astronomer, was of the self-registering type, so that the observations were rendered quite accurate. It was seen that the surface was generally a few degrees warmer or cooler than the air and was very constant, while the bottom was much colder, not always in proportion to the depth. The following figures will illustrate this more clearly and precisely :—

TEMPERATURE.

Station.	Air.	Surface.	Bottom.	Depth.
3	70·0	72·2	61·5	31 fathoms.
14	73·8	72·3	64·0	25 "
27	72·6	72·0	60·4	23 "
37	72·2	72·1	65·0	50 "
45	69·5	72·2	63·4	55 "
48	69·8	72·3	67·0	55 "
56	69·9	72·5	66·2	79 "
59	73·8	71·9	67·2	30 "

RESULTS.

Now that the trawling experiments are concluded, let us hope for the present only, divers opinions have been expressed as to the economic results of the expedition, and although it is not my province to deal with this aspect of the question, some few notes may be acceptable. Certain persons have been apt to judge of the results by the amount of fish brought to port. This, however, is a wrong measure to apply, for if fish were wanted, the careful observations made and preserved show exactly where such could be obtained. When a fruitful bank was discovered it was not further worked but new fields were sought, sometimes successfully, sometimes less so. Such are also the conditions in the North Sea (where my first trawling experiences were gained), and elsewhere. The whole ocean floor is not suited for trawling, and it must be remarked that comparatively speaking the bed of the sea was little more than scratched, and that whole areas are yet to be discovered and worked.

Among the more notable edible fishes obtained may be specially mentioned the Dory. This prime table fish was proved to be very common in certain places, notably within three miles of the coast, off Botany Bay. Mention may also be made of a Boar-fish (Pl. iii), which previously almost unknown, was taken in fair quantities, and proved to be of good edible quality. The Narrow-banded Sole (Pl. ix), a most exquisite fish, although only taken at four stations, was there so plentiful that if its haunts were more thoroughly explored there is little doubt that it would yield a good return. Among the better known fish trawled in large quantities may be mentioned Nannygai, Flathead, the Large- and the Small-toothed Flounders, and the Trumpeter Whiting; to say nothing of the Gurnards, Skate, Red Mullet, and other kinds. For more precise information the reader is referred to the accompanying list of fishes obtained, the marketable species being specially marked with an *.

Anyone looking into the literature of our fishes will soon become aware how little we know comparatively of the distribution of many of them. To a large extent the fishes of our coast-line, as we know them, are those of Port Jackson and the area immediately outside the Heads. How far to the north or south of this area they extend we cannot say, while of the fauna of the deeper water lying to the eastward we know practically nothing. The results obtained by the "Thetis" expedition show how much may be learned with but little outlay; the known range of many of our commonest species has been increased to the limits of the area covered, while not a few fishes are now recorded for the first time from our coast, and two species are described previously unknown to science.

A more comprehensive and technical account will, in time, be published by the Trustees of the Australian Museum, together with a full treatise of all specimens, both vertebrate and invertebrate, obtained by the expedition, to be prepared by the several specialists of that institution.

The present report is of a popular character, and has been prepared rather for the benefit of the commercial than the scientific community. To this end the technical names employed are not necessarily those of strict science, but are those by which the various fishes are best known to amateurs both in science and fishing, to those who may have neither the inclination nor the training to follow

follow to its ever-changing end, nomenclature. My meaning may probably be better understood by the following illustrations. Perhaps not ten persons in the Colony would understand the fish referred to under the name *Pagrosomus auratus*, or *Sparosomus auratus*; hundreds, however, would recognise it under *Pagrus unicolor*, while everyone knows it as the Schnapper. *Pomatomus saltatrix*, or *Pomatostomus saltatrix*, are names unfamiliar to the economic student; he would, however, recognise in *Temnodon saltator* the familiar Tailor. It must not be hereby understood that I in any way deprecate scientific usage, but writing as I am for the practical and not the scientific man (a distinction I do not altogether agree with), my language is couched accordingly. Until some thoroughly scientific and comprehensive work on the whole of the fishes of the Colony is prepared, which would serve as a standard for many years to come, it is, in my opinion, better to use throughout familiar names rather than introduce here and there, some popularly unintelligible terms as I have above instanced.

That I have written the following pages for the multitude and not for the one, will be at once clear by the practice of first giving the universally familiar vernacular, followed by the commonly accepted technical cognomen.

Some of the notes attached may not be of general interest, I may, therefore, explain that these have been suggested by inquiries I have had, and are in answer to such.

The actual operations extended from February 19th to March 25th, and during this period the trawl was lowered sixty-one times. On two occasions when the net was fouled, it was raised and at once dropped over the same spot, so that the number of stations is reckoned at fifty-nine.

The first thirty-three together with the last haul were made north of Port Jackson and extended to the Manning River, the depths tested being from 10 to 90 fathoms. Not usually working more than about 8 miles from the shore, one essay was made at 19, and another 26 miles distant.

The remaining hauls as represented by stations 34 to 58 took place between Port Jackson, southward to Jervis Bay, at depths varying between 10 and 80 fathoms.

The following stations were barren as far as fishes are concerned:—3, 14, 16, 19, 45; mainly due to the net becoming twisted, or otherwise getting out of order, while being lowered. At stations 6, 18, 29, 30, 31, 36, very few fish were taken, the net or otter boards having fouled obstructions, such as rocks or wreckage.

PARTICULARS OF STATIONS.

Station.	Date.	Hour.	Locality.	Direction trawled.	Distance from shore in miles.	Depth in fathoms.	Nature of bottom.
1	1898. 19 Feb.	7:14 a.m. to 9:30 a.m.	Off Barranjoey Head	E.N.E.	2½ to 4½	20 to 32	Gravel and sand.
2	19 "	11:20 a.m. to 1:20 p.m.	Off Cape Three Points ...	N.E. by E.	4½ " 6	32 " 40	Sand.
3	21 "	7 a.m. to 9 a.m.	Off Barranjoey	E.	6 " 9	31 " 55	Mud and shell.
4	21 "	9:30 a.m. to 11:30 a.m.	do	W. to S.E.	9 " 8½	55 " 84	Sand, shell, mud.
5	21 "	12:45 p.m. to 2:30 p.m.	Off Narrabine	S.E.	8½ " 12½	84 " 64	Soft mud.
6	21 "	3:10 p.m. to 6:30 p.m.	Off Long Point	S.E.	12½ " 19	67 " 80	Mud to sand.
7	21 "	7 p.m. to 10:40 p.m. ...	Off Port Jackson	W. to S.W.	19 " 9	80 " 62	Sand and gravel.
8	22 "	6:15 a.m. to 9 a.m. ...	Off Barranjoey	N.	4½ " 1½	25 " 28	do
9	22 "	9:45 a.m. to 12 noon. ...	Off Cape Three Points ...	S.E. to N.	1½ " 2	28 " 28	Brown sand.
10	22 "	1:30 p.m. to 5 p.m.	Off Broken Head	N.E. by N.	2 " 4½	28 " 28	Fine sand.
11	22 "	6:5 p.m. to 11 p.m. ...	Off Tuggerah Lakes	N.E. by N.	4½ " 6	28 " 34	Sand.
12	22 "	12:30 a.m. to 5:30 a.m.	Off Cape Three Points ...	S.W. by S.	6 " 5	34 " 23	do
13	25 "	7 p.m. to 9 p.m.	do do	N.E.	5½ " 7½	41 " 50	Sticky mud and shell.
14	27 "	7:15 a.m. to 9:45 a.m.	Off Norah Head	N.E. by N.	4 " 5	25 " 32	Sand and shell.
15	27 "	10:20 a.m. to 12 noon	do	E.S.E.	5 " 8½	32 " 48	Rocky.
16	27 "	3 p.m. to 6 p.m.	Off Bird Island	E.S.E.	17½ " 26	72 " 90	Fine sand and shell.
17	28 "	6 a.m. to 8:45 a.m. ...	Off Broughton Island	S. by W.	3	29 " 48	Sand and shell to rock.
18	28 "	2:15 p.m. to 2:45 p.m.	N., off Port Stephens	S.S.W.	7 to 5	32 " 48	Rock.
19	1 Mar.	10:10 a.m. to 12:30 p.m.	S. of Port Stephens' Light	S.S.W.	1½ " 4	32 " 52	Mud to stones.
20	1 "	1 p.m. to 2 p.m.	Off Morna Point	S.W.	1½ " 3½	23 " 30	Gravel, mud, rock.
21	2 "	8 a.m. to 10 a.m.	Newcastle Bight	S.W. by S.	4 " 6	28 " 40	Fine grey sand.
22	2 "	10:30 a.m. to 1:15 p.m.	do	W.S.W.	6 " 5	40 " 26	Grey sand to mud and shell.
23	2 "	2 p.m. to 3:45 p.m. ...	do	N.N.E.	2½ " 4	19 " 16	Mud and sand to pebbles.
24	4 "	7 a.m. to 9 a.m.	Off Newcastle	E.S.E.	5 " 8	21 " 48	Sand and mud.
25	4 "	9:30 a.m. to 10:15 a.m.	do	S.W. by W.	8 " 6½	48 " 42	Soft mud.
26	4 "	1 p.m. to 3 p.m.	do to Red Head	W.S.W.	4½ " 3	32 " 20	Soft mud to fine sand.
27	5 "	7:30 a.m. to 9:35 a.m.	Off Manning River	S. by W.	2 " 4	22 " 23	Fine grey sand.
28	5 "	10 a.m. to 12 noon ...	do	S.E.	4 " 6½	22 " 28	do
29	5 "	{ 1 p.m. to 1:5 p.m. ... } 2 p.m. to 2:15 p.m. ...	In Manning Bight	S.W.	4½ " 3	18 " 17	Mud and rock.
30	6 "	8 a.m. to 8:10 a.m. ...	Off Point Halliday	S.S.W.	7	35 " 35	Rock.
31	6 "	8:30 a.m. to 11 a.m. ...	Off Cape Hawke	S.S.W.	1½	28 " 25	Sand, shell, and rock.
32	6 "	11:15 a.m. to 2 p.m. ...	Off Wallis Lake	S. by W.	¾ to 1½	10 " 12	Sand to gravel.
33	7 "	8 a.m. to 10:15 a.m. ...	Newcastle Bight (N. end)	S.W.	1½ " 3½	27 " 24	Sand and pebbles.
34	10 "	4:15 p.m. to 5:15 p.m.	Off Port Jackson	S. by W.	3½ " 2½	39 " 36	Sand and mud.
35	10 "	9:20 p.m. to 11:15 p.m.	Off Port Hacking	S.E. to S.W.	1½ " 2	22 " 38	Sandy.
36	11 "	8:55 a.m. to 9 a.m. ...	Off Botany Bay .....	.....	1	23 " 20	Sand to rock.
37	11 "	5:30 p.m. to 7:30 p.m.	do	S.S.W.	2 to 2½	50 " 52	Mud.
38	12 "	7 a.m. to 9 a.m.	Off Jibbon	S.S.W.	3 " 2½	46 " 55	Sand to mud.
39	12 "	9:30 a.m. to 12 noon. ...	Off Wata Mooli	S.S.W.	2½ " 2½	50 " 50	Sand and shell.
40	12 "	{ 1:15 p.m. to 1:20 p.m. } 3 p.m. to 3:5 p.m. ...	do	S.	3	52	Sand and boulders.
41	13 "	7 a.m. to 9 a.m.	do	S.S.E.	2½ to 5½	52 to 71	Soft mud.
42	13 "	9:30 a.m. to 12 noon. ...	do	S. by W.	6 " 8½	70 " 78	Coarse sand.
43	13 "	2 p.m. to 4:15 p.m. ...	Off Botany Bay	S.	1½ " 3½	43 " 66	Soft ooze.
44	15 "	4:20 p.m. to 5:10 p.m.	Off Coogee	S.S.E.	5 " 6	49 " 50	Fine sand.
45	16 "	6:50 a.m. to 8:50 a.m.	Off Botany Bay	S. by W.	2½ " 4½	55 " 66	Soft mud.
46	16 "	9:15 a.m. to 11:10 a.m.	Off Jibbon	N.	4½ " 3	66 " 50	Mud and Abattoir refuse.
47	16 "	3:50 p.m. to 5 p.m. ...	Off Bulgo	S. by E.	6 " 8½	63 " 57	do do
48	18 "	7:25 a.m. to 8:30 a.m.	Off Wollongong	S. by W.	7 " 8	55 " 56	Sand and mud to rock.
49	18 "	10:25 p.m. to 12:30 p.m.	Off Port Kembla	S.W. by S.	8 " 5	75 " 63	Mud and pebbles.
50	19 "	7:30 a.m. to 9:30 a.m.	In Shoalhaven Bight	S.S.W.	2	18 " 15	Sand.
51	19 "	9:45 a.m. to 11:45 a.m.	Off Shoalhaven River .....	.....	1½ to 2	15	do
52	19 "	12:45 p.m. to 2:15 p.m.	In Shoalhaven Bight	S. by E.	2½ " 3	19 to 20	Sand to mud.
53	19 "	3 p.m. to 3:5 p.m. ...	Off Crookhaven River .....	.....	4	23	Rock.
54	20 "	6:30 a.m. to 8:35 a.m.	Jervis Bay (within)	N.	.....	10 to 11	Seaweed and sand.
55	20 "	5:15 p.m. to 5:45 p.m.	Off Crookhaven River	N.E. to N.W.	1	15 " 11	Sand to rock.
56	22 "	7:50 a.m. to 10 a.m. ...	Off Botany Bay	S. by W.	8	79 " 80	Sand and stones.
57	22 "	11:30 p.m. to 1:50 p.m.	Off Wata Mooli	S.S.W.	3½ to 4	59 " 54	All mud.
58	22 "	3:10 p.m. to 5 p.m. ...	do	S.S.W.	1½ " 2	28 " 42	Fine sand to mud.
59	25 "	4:30 p.m. to 6:15 p.m.	Off Narrabine	N. to N.E.	4 " 5½	30 " 32	Coarse to fine grey sand.

DESCRIPTIVE LIST OF FISHES.

Old Wife. *Enoplosus armatus*.

Stations 18, 22, 26.

Although this common little fish is best known swimming around the wharfs and jetties of the harbours, it is, as our records show, not confined to shallow water, having been taken in 48 fathoms. It is an excellent fish for the table, but cannot be obtained in large quantities, for it occurs chiefly in rocky ground where the net cannot be used, and it very seldom takes the hook. It does not usually attain to a length greater than 8 or 9 inches. The only three examples obtained in the trawl, were taken between Newcastle and Port Stephens.

Bastard Longfin. *Anthias lepidopterus*.

Station 15.

(Plate I.)

Off the coast of New South Wales, this fish is certainly rare, but is better known in Victorian, Tasmanian, and New Zealand waters. When obtained it is generally mistaken for the next species to which it bears very great resemblance. Our specimens were all taken together, off Tuggerah Lakes in 32-48 fathoms. The largest measures only $7\frac{1}{2}$ inches in length, but examples have been recorded of 12 inches. The scarcity of this fish will not warrant its being regarded as a food-fish of the Colony, whatever its edible character may be. *Cæsioperca lepidoptera* is a less familiar name.

Allport's Perch. *Callanthias allporti*.

Station 15.

(Plate II.)

Previously known only from the coast of Tasmania. Six examples were taken by us off Norah Head, 36 miles north of Port Jackson, in 32-48 fathoms. They were probably netted among rocks, as obstructions were met with which rendered the raising of the trawl a necessity. Our specimens do not wholly agree with the published descriptions of the species, but critical comparisons are reserved for the more technical treatise previously announced.

The accompanying figure, drawn from one of the *Thetis* specimens, will show the general form. The colour is rosy, with the margins of the scales yellow; the cheeks and under parts exhibit bright blue reflections. A large patch, extending from above the eye to the dorsal fin, is yellow, which is also the colour of all the fins; but the tail has a purplish patch on the upper and lower edge next the body. It may be noticed that the three allied genera, *Anthias*, *Callanthias*, and *Caprodon*, were all obtained at station 15, and that the two first-named were taken nowhere else.

Longfin. *Caprodon longimanus*.

Stations 15, 42, 48, 56, 57.

This fish has a peculiar distribution in the South Pacific Ocean, occurring off the coast of New South Wales, New Zealand, and Chili. Here it is by no means common, but can scarcely be mistaken when secured. The late Tenison-Woods gave it the above popular name on account of the length of the pectoral fin. The Longfin occurs in rather deep water having been trawled in depths varying from 32 to 80 fathoms, on sandy, muddy, or rocky bottom. If sufficiently common it would be a good marketable fish, attaining a length of 18 inches. It has generally been confounded with and named *Caprodon schlegelii*, a Japanese species.

Half-banded Sea Perch. *Plectropoma semicinctum*.

The distribution of this species is similar to the above-named, ranging from Australia and New Zealand to Chilian waters. It was not taken in the trawl, the specimens obtained being secured by lines off Cape Hawke in company with Schnapper, Sergeant Baker, Sweep, and other rock fish.

Grey-banded

Grey-banded Perch. *Epinephelus septemfasciatus.*

Station 51.

In 1867 two specimens of this fish were sent from Sydney to London. These are, I believe, the only examples previously known from Australia. I am therefore pleased to be able to once more record it from our waters; it is a fine fish, attaining a length of 12 inches. The only example trawled was taken in Shoalhaven Bight in 15 fathoms or under. While apparently rare in Australian seas, it has a wide distribution, ranging from the tropical Atlantic through the Indian Ocean to Chinese and Japanese Seas.

Wirrah. *Plectropoma ocellatum.*

Station 25.

The scientific name of this fish should be *Acanthistius serratus*, but is not used above for reasons previously stated. The only two examples secured were obtained by the trawl in the vicinity of a wreck in 48 fathoms, the anchor-chain and a plank of which were hauled aboard. Although easily caught with the hook and tolerably common, the Wirrah is accounted of little value for the table; it is said to be good only when boiled. It appears to be a very local species, confined to the coast of New South Wales, and more common in the vicinity of Port Jackson than elsewhere. Our specimens were trawled off Newcastle. It will scarcely be necessary to point out to those persons acquainted with this fish that Tenison-Woods' figure (Pl. iv) represents the Bull's-eye and not the Wirrah as stated.

Trumpeter Perch. *Therapon curvieri.*

Station 52.

One specimen only was obtained, in 20 fathoms, off Shoalhaven Bight. If examples of this fish were required we should prefer drawing the seine in Botany Bay or Middle Harbour. Around the shores of Port Jackson it is a very common little fish, and is frequently caught by boys on the wharfs, in company with yellow-tails. Although small, seldom exceeding 8 inches in length, it is a delicious table-fish, and is sometimes taken to market in immense quantities; but, as far as my experience goes, it does not appear to be in much demand, doubtless on account of its small size. When dying this fish emits the "tooting" note which has earned for it the sobriquet "Trumpeter Perch."

*** Boar-fish.** *Histiogaster elevatus.*

Stations 5, 7, 15, 22, 34, 38, 42, 44, 47, 48, 56, 57.

(Plate III.)

One result of the trawling experiments is that of establishing the presence off our coast of a Boar-fish in tolerable quantities. The number of stations (12) at which it was obtained shows that it is by no means rare, nor confined to any particular area. Judging by our limited trials, it appeared to be most plentiful about the 50-fathom line, but was obtained between the extremes of 26 and 84 fathoms. In almost all cases it was taken on sand or mud, and should, therefore, be easily secured by means of a trawl. If regular trawling operations were carried on, there is no reason why this fish should not yield a good return. As to its table properties, it is, as we had means of proving, of excellent flavour; and I regard this as one of our best discoveries from an economic point of view. This is not the Boar-fish which has been previously figured, but a species hitherto known only from one or two examples. It seems to run about 10 inches in length, but some were obtained slightly larger. It is probably a small species, but specimens of other kinds have been obtained over 30 inches in length. An interesting fact is, that young examples of only 2 or 3 inches were secured, proving that the species breeds in our waters, and is not necessarily migratory.

In the "Edible Fishes of New South Wales," p. 31, one of the authors of this species remarked that it is probably the Japanese *H. typus*, Schleg. An examination of the specimens trawled by the "Thetis" shows that such is not the case, and that it is quite a distinct species. It is to be noticed that no examples of the better known Boar-fish, *Histiogaster labiosus*, were obtained, the only other species secured proving to be new, and mentioned below.

* Farnell's

* **Farnell's Boar-fish.** *Histiopertus farnelli.* (New species.)

Station 50.

(Plate IV.)

It is much to be regretted that only one example of this new fish was secured. As it was taken almost at the limit of our operations, it is possible that had we gone further south we should have again picked it up, in company with other interesting forms. It is to be deplored that the funds available did permit trials to be made below Jervis Bay, for on the southern portions of the coast I expected we should make good hauls. The fish is rather small, measuring only 8 inches, but it may attain larger dimensions. It was taken in Shoalhaven Bight, in the comparatively shallow water of 15-18 fathoms. A full description will be published in the Museum Report. For the benefit of those interested in these matters it may be briefly described as follows, the figure being mainly relied upon to convey a general idea of the appearance of the fish. It is with particular pleasure that I associate with this species the name of Mr. Frank Farnell.

D. 7/17, A. 2/10, V. 1/5, P. 17, C. 17.

The length of the head is 3 and the height of the body 2 in the total length. The diameter of the eye is $3\frac{1}{2}$ and the length of the snout $2\frac{1}{4}$ in the head. The interorbital space is greater than the eye by one-sixth its diameter. The forehead rises abruptly to the second dorsal spine, which marks the highest point of the fish, the height then declines by an even convex curve to the tail; the lower profile is also convex. The first three dorsal spines are stout, the third being twice the diameter of the eye. The fourth is slender and long, and curiously bent, as are also those which follow. The anal fin is short, the second spine being the longer, and slightly larger than the third dorsal. The ventrals are long, reaching to the second anal ray. The spines are as long as the head, the rays somewhat longer. The colour is creamy grey, with black markings, the disposition of which is sufficiently indicated by the figure.

Long Roughy. *Trachichthys elongatus.*

Station 25.

(Plate V)

Off Newcastle, in 42-48 fathoms, we got two examples of this curious little fish, not before recorded from the coast of New South Wales, although its habitat has been vaguely stated as "Australia." It is also known from the Great Barrier Island, New Zealand. The genus to which this fish belongs is allied to that which includes the Nannygai, and the common name is applied in reference to the peculiar character of the scales. The common species is called the Roughy, simply.

Red Bull's-eye. *Priacanthus bennebari.*

Stations 22, 23.

The name Bull's-eye is also applied to *Pempheris*, but the fish here referred to will be recognised from the figure (Pl. iv) of Tenison Woods' work, which is erroneously described as representing the Wirrah. The Red Bull's-eye was but twice obtained in the trawl, in 16-40 fathoms off Newcastle. Although sometimes included as a food fish, and occasionally attaining a length of 12 inches, it is not often taken of edible proportions.

* **Sweep.** *Scorpiis equipinnis.*

Richardson. Voyage, Erebus and Terror, p. 121. Tenison-Woods, p. 37, pl. vi.

Not once having entered the trawl, this little rock fish finds a place in the list by virtue of it having been taken at two places with the hook, in company with the Half-banded Perch, Schnapper, Red Rockcod, Rainbow fish, Sergeant Baker, and Leather-jacket. It was first secured over Schnapper Rock, between Cape Hawke and Crowdy Head, and secondly on Young Banks, the favourite schnapper-grounds, off Crookhaven Bight. It is a good food fish when of maximum dimensions—say 12 inches—but it is unfortunately more frequently caught of only half this size. The correct technical designation of the Sweep is probably *Cæsiosoma equipinnis*.

* **Red Mullet.** *Mullus porosus.*

Stations 1, 12, 21, 22, 24, 27, 28, 29, 39, 48.

Although frequently exposed in the market, the Red Mullet is not very eagerly sought after. It is possible that its table properties are scarcely known here, while in Britain the European species is esteemed the greatest delicacy, and the Romans of old sought for it far and wide, and paid fabulous prices for single specimens. Apparently not sufficiently common to entice anyone to fish exclusively for it, the Red Mullet would nevertheless be a welcome addition whenever taken, for if a regular supply could be obtained by trawling there is no doubt that purchasers would always be forthcoming.

* Schnapper.

* **Schnapper.** *Pagrus unicolor.*

Stations 1, 2, 8, 12, 15, 21, 23, 29, 33, 52, 53.

Judging by the inquiries made as we on the several occasions entered port, a stranger might have thought that there was only one fish in our waters, and that the Schnapper. We were by no means anxious to obtain this fish, for its advent was a tolerable indication that we were in the vicinity of rocks, objects of all others to be avoided in trawling. At four out of the above eleven stations the net was badly torn, and at several of the other stations, where the damage was less severe, the numbers of sponges, gorgonias, and other rock-frequenting forms sufficiently indicated the nature of the obstruction encountered. Occasionally, Schnapper were obtained on ideal trawling-ground. It was, however, then significant that not more than one or two individuals were netted.

The circumstance of Red Bream (young Schnapper) of 2 lb. weight taken in full breeding condition was considered to be of great interest and considerable importance. Taking into account the number of small Schnapper secured in such mature condition, we can scarcely believe that this phase of schnapper life is unknown to fishermen.

* **Black Bream.** *Pagrus australis.*

Considering the comparatively large number of stations at which the Schnapper was secured, one might have expected that one Black Bream at least would have been trawled; such was, however, not the case. On the other hand, this experience is quite in accord with the known habits of the species, frequenting the coastal and estuary areas rather than the more open seaway. Lines put down on the recognised schnapper-grounds failed to secure them, and they were obtained only in the sheltered harbour of Port Stephens.

* **Morwong.** *Chilodactylus carponemus.*

Stations 7, 12, 21, 42, 48, 53.

It is to be noticed that although neither of the nearly-related fishes, the Jackass fish nor the Carp was obtained, the Morwong was gathered in considerable quantities. Hitherto almost unknown, excepting from adult examples, we were fortunate in netting young ones. Most of them were collected in deep water, say 45 to 75 fathoms, and none were got in less than 23 fathoms. Beyond enabling us to note the fact, our observations were not sufficiently extensive to empower us to form any definite opinion as to the breeding habits of this species, a subject at present quite unknown. I believe that had operations been continued further southward we should have met with greater success with the Morwong, as it is peculiarly a southern form, known from Victoria, South Australia, and New Zealand. Station 21, in the Newcastle Bight, is, I believe, the most northern point whence it has so far been recorded.

* **Bastard Trumpeter.** *Latris ciliaris.*

Station 53.

Common in New Zealand waters, the Bastard Trumpeter is scarce here, and when secured is only taken with the line off rocky ground. We were, I may say, unfortunate enough to trawl one example, for on this occasion, when Schnapper were also taken, the trawl had scarcely reached the bottom when it became fouled and got rather badly torn. This took place off Shoalhaven Bight, in 23 fathoms. The species under consideration is not to be confounded with the Trumpeter proper, a fish prized in New Zealand above all others. Dr. Hector writing on the moki, as the Bastard Trumpeter is called in New Zealand, says that "it rarely takes the bait, but is chiefly caught with the net. The quality of this fish is very varied, and much affected by the nature of the feeding-ground, for though usually rich and well-flavoured, it is frequently, even during the proper season, insipid, and with the strong rank taste that characterises it when out of season."

* **Red Gurnard Perch.** *Sebastes percoides.*

Stations 7, 13, 25, 42, 44, 48, 56.

The estimation in which this fish is regarded as food apparently differs greatly. In Tasmania it is said to be held in great esteem, but in New Zealand one writer describes it as being almost worthless as food. The examples obtained by the "Thetis" were generally so small that our cook did not deem them worthy of preparation. Most of the areas covered by the above enumerated stations were sandy, and would indicate that this species is not so wedded to rocks as has been thought. It was only gleaned in deep water, the least depth being 41, and the greatest 80 fathoms. Although lines were put down on many of the recognised schnapper-reefs, the Red Gurnard Perch was never hooked.

* **Rough-scaled**

* **Rough-scaled Rock-cod.** *Scorpaena scabra.*

Stations 7, 42, 48, 49.

This must be a rare fish, it is so little known. First described from Port Jackson ten years ago, from specimens only $2\frac{1}{4}$ inches in length, it was afterwards taken at Lord Howe Island, represented by examples measuring $3\frac{1}{2}$ inches in length. We have now taken adults, the largest of which measures 12 inches. Four examples only were obtained, one at each of the four above-named stations, all being in comparatively deep water, namely, from 55 to 78 fathoms, and taken off the coast in the limited area between Port Jackson and Port Kembla.

* **Red Rock-cod.** *Scorpaena cruenta.*

Station 55.

The only occasion on which this fish was netted, the trawl encountered rock and brought up two large basalt boulders, from which a wealth of invertebrate life was taken. Wherever lines were put over on the various schnapper-grounds the Red Rock-cod was taken, its capacious mouth receiving the largest bait. Even though its flesh may be well-flavoured, it does not find much favour as a food-fish.

Fortescue. *Centropogon australis.*

Station 23.

But little need be said about the Fortescue. It is known to every wharf-fisher, man or boy, and dreaded for the painful wounds that it inflicts with the dorsal and, more especially, the preorbital spines. This matter is further mentioned under the Bullrout, next considered. Two examples were obtained at the somewhat unusual depth of 16-19 fathoms, the species being better known in shallow water, cruising around the piles of the piers and jetties.

Bullrout. *Centropogon robustus.*

Station 51.

The fact of our having trawled this species in Shoalhaven Bight extends the known distribution in a southerly direction; its range, therefore, as far as is known, is from this station to the Mary River, Queensland, where it was obtained by the "Challenger" expedition. The Bullrout is what may be termed a fluvio-marine species, ranging from the sea through brackish waters to the rivers above tidal influence. Respecting the painful wound caused by the dorsal and preorbital spines of this species, the author of the "Edible Fishes of New South Wales" (p. 68) writes:—"No doubt any such wound would cause pain, but the state of the sufferer's health, his nervousness, and his belief in the superstition of its poisonous qualities are all factors, which must be taken into consideration. Personally the writer has been 'stung' on many occasions, both by the allied Fortescue (*Centropogon australis*) and by the British Weever (*Trachinus vipera*) and never felt any more inconvenience than would result from a similar stab of a knife. The fact is the wound is merely a deeply punctured and viciously inflicted one, without any venomous properties whatever."

I also, on more than one occasion, have been stung by both the Australian and British species mentioned, and, without being either nervous or superstitious, my experience is that such wounds are painful in the extreme. Further, I cannot agree with this writer as to the absence of venomous properties. Although the spines are not perforated they are deeply grooved, and the grooves are charged with a fluid-mucous possessing poisonous properties, the truth of which is sufficiently apparent to the majority of persons who have the misfortune to be stung.

Mailed Fish. *Monocentris japonica.*

Stations 5, 10, 28, 29.

Several examples of the rare and curious fish were acquired in depths varying from 17 to 84 fathoms, northward of Port Jackson. Although a near relative of the Nannygai, it would scarcely be sought after, even if common, for its complete bony armament would render preparation for the pot somewhat difficult. It is inactive in habit, and lures its prey by means of a luminous disc on each side of the lower jaw: these organs are of crimson colour when first the fish is caught. In addition to Australian waters, this species (the only known member of the genus), occurs off Mauritius and Japan, and was first described from this latter source. It is a small fish, not exceeding 6 inches in length.

* Nannygai.

* **Nannygai.** *Beryx affinis.*

Stations 7, 11, 12, 13, 21, 22, 23, 24, 25, 35, 42, 48.

The Nannygai is certainly not a poor man's fish, always fetching a high price in the market. That it is plentiful in the deeper waters, and can be freely obtained by means of the trawl, was amply proved. It was, however, noticed that those so taken were mostly of small size; my notes indicate that these smaller fish were secured on sandy bottom, and it was not until the soundings showed rock that we netted larger individuals. The line must, therefore, be relied upon for fine specimens. There may still, however, be good work for the trawl to do. The Nannygai is only obtained during the warmer parts of the year, and not until operations have been carried on for a full twelve months can the habits of this and many other of our valuable food fishes be definitely ascertained and taken advantage of. A glance at the particulars of the twelve stations above enumerated shows that once only (station 23) was the Nannygai obtained in less than 20 fathoms.

Much requires to be known of the distribution of this fish. It ranges from our coasts to New Zealand, and unexpectedly occurs also in Tasmanian waters. Its northern limit and its winter quarters have not been found. Its distribution in time is of exceeding interest, for some of its nearest allies form the majority of the fossil and oldest known bony fishes from the cretaceous or chalk formation.

Bull's-eye. *Pempheris compressus.*

Station 10.

This fish is not to be confounded with the Red Bull's-eye, previously catalogued; seldom exceeding 5 inches in length, it cannot be classed as a food-fish, and need not here be considered at greater length.

* **Teraglin.** *Otolithus atelodus.*

Stations 1, 11, 12, 23, 25.

A New South Wales fish, and not known beyond the borders of the Colony. The economy of the Teraglin is little known; regarded only as a spring visitor, and yet taken at the very first haul, it seemed as though we were to learn something: this experience, however, was not maintained, and altogether we did not take more than a dozen examples, none of which exceeded a foot in length. Although sometimes taken in the seine, the Teraglin is more often caught with the line at moderate depths; there is, therefore, no reason why it should not be obtained by the trawl in spring, when it visits the coast in large numbers. Attention may be drawn to the fact that the soundings at all the above-named stations showed a sandy or muddy bottom—the depths ranging from 16 to 48 fathoms.

Another name proposed for this fish is *Atractoscion atelodus*.

* **Yellow-tail.** *Caranx trachurus.*

Stations 17, 24, 26, 39.

One scarcely expects to meet with this fish while trawling and indeed those secured were obtained under quite adventitious circumstances. Few of them were perfect, the others were damaged due to having been more or less digested by some carnivorous fish. On two occasions partially-digested Yellow-tails were ejected by John Dorries and as these latter fishes are known to be predatory feeders, it is possible that most of the Yellow-tails were secured by their efforts and the remainder taken as the trawl approached the surface. All the specimens secured were small, not exceeding 6 inches in length. In recent works this species should be looked for under the name *Trachurus declivis*.

* **Kingfish.** *Seriola lalandii.*

This fine fish was freely taken by the line off Seal Rocks and afforded good sport to such members of the expedition as were not at the time engaged in repairing the trawl.

The interest of fishing and of net-mending was, however, greatly eclipsed by the excitement aroused in watching the seals (*Otaria fosteri*) to the number of 100 or more. As the "Thetis" steamed close up to the rock, the movements of these animals, as they fought with one another or otherwise disported themselves, were followed with the keenest interest.

* **Samsonfish**

* **Samsonfish.** *Seriola hippos.*

The Samsonfish was never taken, but in Port Stephens a small herd was playing around the boat, jumping clear out of the water and generally behaving themselves much after the manner of dolphins. They were readily recognisable from the Kingfish by their shorter and more robust forms.

* **Tailor.** *Temnodon saltator.*

Stations 1, 23.

Probably encountered as the trawl neared the surface, two Tailors were taken; had the season been spring, instead of autumn, more might have been caught, but the seine and not the trawl is the correct implement to be used for this species. At any time, it is scarcely a favourite with fishermen on account of the damage it does to their nets.

* **John Dory.** *Zeus australis.*

Stations 2, 4, 5, 7, 8, 9, 11, 12, 15, 17, 21, 22, 23, 25, 26, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 46, 47, 48, 50, 52, 56, 57, 58.

The following lines were published in 1883:—"This is one of our very best food-fishes, always in demand and bringing a high price in the markets, sometimes as much as 1s. per lb.; but the supply is so irregular that it can only be looked upon as a rare delicacy." These words are equally true to-day, and yet we can safely say that the John Dory is not a rare fish on our coast. As will be seen by a reference to the stations quoted, it was trawled on no less than thirty-three occasions. At station 36, Dories were the only fishes taken; and at station 37, twenty-eight large individuals were obtained in one haul of two hours' duration, immediately south of Botany Bay and within 3 miles of the coast. Depth, between the extremes at which we trawled, seemed to have no effect on its numbers it being equally common either at 16 or 84 fathoms. Indeed the known habits of the British Dory indicate that it may swim freely at the surface for when the Pilchards approach the shore this fish is often taken in considerable numbers. The only Pilchard obtained by us was voided by a Dory (station 26) and the single Mackerel was obtained in the same way (station 38) while as has been previously mentioned many of the Yellow-tails secured, had been partially digested, doubtless by Dories. When these latter fish were in the trawl the fact was generally made apparent by numbers of dead examples rising to the surface and floating away (owing to their peculiar conformation) on their sides: many were washed over the ground line and thus lost.

Mr. Cunningham remarks that "the dory has a peculiar and interesting method of securing its prey. It does not overtake it by superior speed like the mackerel, or lie in wait for it like the angler, but stalks it and approaches it by stealth. It is able to do this in consequence of the extreme thinness of its body, and the peculiar movement of its hinder dorsal and ventral fins. The dory places itself end on towards the fish it desires to devour, and in this position it is evident that it excites no alarm on the part of its prey. The appearance of the dory seen in this way is a mere line in the water, to which no particular significance can be attached. I have not particularly noticed the effect of the ribbons of membrane, which project from the dorsal fin. But I have observed that the movements of the dory are very gradual, except in turning: it alters the position of its body by a turn of the tail or side fins, and then slowly swims forward by vibrating the second dorsal and ventral, a movement which causes very slight disturbance of the water. The whole appearance of the dory in these actions is suggestive of suppressed excitement, his eyes being fixed on his prey. I do not recollect seeing him actually swallow another fish, but have no doubt that he gets near enough to a sprat for example, without alarming it, to seize it by the sudden elongation of his curious jaws."

* **Mackerel.** *Scomber pneumatophorus.*

Station 38.

The only example obtained was a partially-digested individual ejected by a Dory as it lay on the deck. The Mackerel is, of course, a surface fish but it has been stated that it is much more liable to be taken near the bottom than the British Mackerel, if this is correct it is a rather curious circumstance, for the species are so very similar that many writers regard them as identical. It is most unfortunate that their habits differ so much. In Britain, the Mackerel is taken in vast quantities as it periodically approaches the coast; here the supply is too precarious and the movements of the enormous shoals, sometimes seen, too erratic, or shall we not say too little understood to maintain such an industry.

* Horse

* **Horse Mackerel.** *Pelamys chilensis.*

Stations 17, 27.

(Plate VI.)

Originally described from the coast of Chili, as indicated by its technical name, the Horse Mackerel is also known from Japanese, Indian, and Australian Seas. Port Phillip in Victoria, and the Port Jackson district in New South Wales are the only Australian habitats recorded. We are, therefore, able to extend the known range materially. Station 17 is off Broughton Island, north of Port Stephens, while station 27 is much further north, off the Manning River, and was the most northern point at which the trawl was lowered. Some of the specimens obtained were in spawn.

Star-gazer. *Ichthyoscopus inermis.*

Stations 8, 10, 23, 26, 28, 33, 49.

Although under no circumstances could this fish be claimed to be of economic value, it is interesting to mention that this is the first time it has been recorded from Australia. We have, however, known it to have been taken previously off Newcastle. It is known to extend from Indian to Japanese Seas, and in common with other members of its group, lies hidden among sand or mud on the ocean-floor, whence one of the native Indian names *Nillum koranjan*, a diver into the mud.

Stone Lifter. *Kathetostoma laeve.*

Stations 9, 13, 42, 43.

Like its near relative, the Star-gazer, this fish lives at the bottom, hidden in the sand or mud, its eyes and the top of its head alone remaining above. The fact of the trawl having secured fishes of such habit indicates how closely it must have swept the ocean-floor.

* **Banded Percis.** *Percis allporti.*

Stations 4, 5, 6, 13, 21, 42, 43, 46, 47, 56.

This spindle-shaped fish is almost unknown to our fishermen, but, as experience shows, can be obtained in some numbers by means of the trawl. It was never taken in very shallow water, and most numerous in the deepest areas tried; this will account for its non-recognition by fishermen, and is a circumstance quite in harmony with its known distribution. It is to be regarded as a southern form, occurring off Tasmania and in Bass's Straits, and does not appear to have been previously recorded further north than Twofold Bay. While it was taken in our trawl in the Newcastle Bight it will be seen that most of the stations are south of Broken Bay. Although the edible properties of the Banded Percis were not investigated there is little doubt that it would be acceptable on the table, and would be worthy of preservation by trawlers.

Naked-spotted Percis. *Centropercis nudivittis.*

Station 46.

Hitherto this species, the only member of the genus, was known from a single specimen, taken at Maroubra Bay. At the above-named station, only 8 miles south of the original locality, we secured a second example of somewhat larger size.

* **Trumpeter Whiting.** *Sillago maculata.*

Stations 1, 2, 4, 8, 9, 13, 17, 20, 21, 22, 23, 24, 25, 26, 27, 33, 38, 39, 43, 50, 51, 52, 58.

It has been stated that, except in the matter of spawning, our two species, the Trumpeter and the Sand Whiting (*Sillago ciliata*) do not differ materially in habit. Such a statement is by no means borne out by our experience.

The Trumpeter Whiting was trawled on no less than twenty-three occasions throughout almost the whole area traversed, namely, from the Shoalhaven to the Manning River, and at all depths ranging from 16 to 84 fathoms. The Sand Whiting was never once taken. My experience indicates that, of the two, it is only this latter species that is caught by hook and line off the ocean-beaches or bays, while, as seems probable, the Trumpeter Whiting is more partial to deep water, and would probably be the fish taken by the trawl; so much, however, depends upon season and other conditions that it is not safe to speak dogmatically upon such slight data as was afforded by the limited nature of the trawling operations. The Sand Whiting is said to spawn along the sand-banks of the bays and rivers, otherwise in shallow water. Many of the Trumpeter Whiting taken were heavy in spawn, while some had apparently just shed their ova. Is it not possible, therefore, that this species spawns in the deeper water in which it was taken?

* Walking

Walking Fish. *Antennarius nummifer.*

Station 48.

The fishes of this genus are greatly creatures of circumstance. When near the coast they lie among stones or sea-weed, and walk about by means of their arm-like fins; they are most imperfect swimmers, and are carried about by winds and currents, attached to floating sea-weed; thus they have a wide distribution in tropical and sub-tropical seas. Owing to this circumstance, and to the fact that individuals vary both in colour and markings, a great number of untenable species have been described, rendering their determination a matter of much difficulty. They are popularly known as Anglers, Fishing Frogs, or Frog-fishes, in addition to the name above applied. The only example secured was taken off Wollongong, in 55 fathoms.

* **Flathead.** *Platycephalus fuscus.*

Stations 1, 2, 4, 5, 7, 8, 9, 10, 11, 12, 13, 20, 21, 22, 23, 24, 25, 26, 27, 28, 32, 33, 34, 35, 37, 38, 39, 41, 42, 43, 44, 46, 48, 49, 50, 51, 52, 54, 55, 56, 58, 59.

The array of stations at which this common fish was obtained speaks for itself, and indeed leaves but little to be said. It may, however, be noticed that such figures as 78, 80, and 84 fathoms, scarcely bears out the statement that the flathead is found only at moderate depths. As the trawling took place during the known spawning season of this fish, it was not surprising to find many of the examples heavy with ova, while not a few small fry were trawled, indicating that breeding had already taken place.

* **Bass Flathead.** *Platycephalus bassensis.*

Stations 8, 9, 13, 39, 44.

It was only at the above-mentioned stations that I definitely recognised this species, but it is more than probable that some were overlooked. When the quarter-deck of the vessel was simply one mass of fish, it was quite impossible for me to personally examine every specimen of Flathead, Gurnard, or Sting-ray. Most of the other fish I saw, and in case of the slightest doubt, specimens were always placed in my hands before being disposed of.

Gurnard. *Lepidotrigla sp.*

Stations, 1, 2, 4, 5, 7, 8, 9, 10, 11, 12, 13, 22, 24, 25, 26, 27, 28, 32, 34, 35, 37, 38, 39, 40, 41, 43, 44, 46, 47, 48, 49, 51, 52, 56, 57, 58, 59.

The three or four species taken are not discriminated by fishermen, and indeed require a very critical examination for their determination. Work of this description is reserved for the publication shortly to be undertaken by the Australian Museum, as previously mentioned. *L. pleuracantha* is a scarce species, and was observed only at Station 52, but was no doubt overlooked elsewhere for reasons given in the note on the Bass Flathead.

As the net neared the surface large numbers of dead gurnards rose to the top and floated belly upwards, with their pectoral fins extended; they were taken at almost every haul, sometimes in extremely large numbers.

Unlike the Red and the Flying Gurnards the several species of *Lepidotrigla* do not attain a large size, seldom exceeding 9 inches in length.

* **Red Gurnard.** *Trigla kumu.*

Stations 1, 2, 5, 10, 11, 12, 13, 17, 21, 26, 31, 33, 38, 39, 40, 41, 46, 47, 52, 54, 58, 59.

A glance at the above figures might give one the idea that the Red Gurnard was a plentiful species; this, however, would be scarcely correct, for although taken on twenty-two occasions, not more than five or six were averaged at each take, while some of the stations are represented each by a single individual.

* **"Flying" Gurnard.** *Trigla polyommata.*

Stations 1, 11, 38, 40, 41, 43, 46, 56, 57.

This species was taken less commonly than the last, but all the specimens were of large size, smaller ones being almost unknown so far north. The Port Stephens district is regarded as its most northern range; and in confirmation of this it is to be noticed that it was never obtained north of Tuggerah Lakes, and only twice north of Port Jackson. Although generally known as Flying Gurnards by the fishermen of New South Wales and Victoria, and for which reason that name is used, it must be mentioned that these fishes have not the power of flight even as understood of the true Flying Gurnards of the genus *Dactylopterus* and the Flying Herrings, *Exocoetus*. The name Sharp-beaked Gurnard has been proposed for this species.

Crested

Crested Blenny. *Cristiceps aurantiacus.*

Station 32.

In 10-12 fathoms, between Cape Hawke and Charlotte Head, our only specimen of this beautiful little fish was taken. Of more interest to a zoologist than a fisherman, further remark is not here called for.

Rough-billed Pipe Fish. *Fistularia serrata.*

Station 17.

This is usually supposed to be the commoner Pipe Fish of the genus inhabiting our coastal waters, and has been so regarded in literature. A careful study of the specimen collected, however, shows that this is not the case, and that in future the familiar form will have to be known as *Fistularia depressa*, a species taken by us at Lord Howe Island, and included with the fishes at the end of this report.

The Rough-billed Pipe Fish was taken off Broughton Island, in 29-48 fathoms, and was of a lovely terra-cotta colour throughout.

Bellows Fish. *Centriscus scolopax.*

Stations 2, 4, 9, 13, 17, 20, 21, 25, 37, 38, 41.

(Plate VII.)

This interesting species is now, for the first time, recorded from Australian waters. It is best known in the Mediterranean and adjoining parts of the Atlantic, and occasionally extends to the British coast. It has also been recorded from Tasmania; but the late Sir Wm. Macleay doubted the identification, remarking:—" *C. scolopax* I have never seen here. Mr. Johnston's *scolopax* (Tasmania) is probably *C. gracilis*." Mr. Macleay had not seen Tasmanian specimens, and his conclusions were somewhat hasty.

This species differs from *C. gracilis* in its comparatively shorter body, much longer spine, and also in colouration. It was obtained at eleven stations, and altogether about fifty specimens were taken. Its known distribution on the New South Wales coast, as determined by our observations, is from south of Port Hacking to Broughton Island, and its vertical range from 23 to 84 fathoms.

We have now three species of Bellows fish (Trumpet Fish, Snipe Fish, or Sea Snipe, as these forms are variously called) in Australian waters, namely, *C. humerosus*, from South Australia; *C. gracilis*, from Port Jackson and Maroubra Bay (taken at this latter place by my colleague, Mr. Whitelegge, last April), and *C. scolopax*, as above recorded.

The accompanying figure, drawn from one of the "Thetis" specimens, will give a good idea of the appearance of the species delineated.

Brown Puller. *Heliastes immaculatus.*

Station 30.

Caught occasionally off the coast, this little species is by no means common, but judging from the name by which it is known to the boys, it affords good sport when hooked. The designation "Brown" is in contradistinction to the Black Puller applied to *Parma squamipinnis* and the Blue Puller, *Parma microlepis*. The species taken was secured off Cape Hawke in 35 fathoms, where the trawl struck rock the moment it touched the bottom. Two or three Gurnards and the Brown Puller were the only fishes then obtained.

Keel-headed Parrot-fish. *Novacula jacksoniensis.*

Station 32.

(Plate VIII.)

The only example of this fish, previously recorded from the coast of New South Wales, was obtained at Manly many years ago. It is, therefore, of some interest to be able to confirm its presence in our waters, and I take this opportunity of figuring it. As will be seen by reference to the plate, it is a very unmistakable form. It was secured in the comparatively shallow water of 10 to 12 fathoms, between Cape Hawke and Charlotte Head.

*** Rainbow Fish.** *Coris lineolata.*

A fish of but small economic value. This species was never taken in the trawl. Examples were secured by means of the line, but being at the expense of better fish were not deemed welcome. It is not found northward of our colony, but what its northern limit may be appears to be unknown. I am, indeed, not certain that it has been previously recorded from, although doubtless taken off Schnapper Rock, between the Manning River and Cape Hawke, where
we

we hooked several specimens. This fish is said to be known to the Sydney fishermen by the name Maori, but I have invariably found it to be called Rainbow-fish. The latter appellation is applied, in print, to a species *Heteroscarus castelnaui*, but which we may remark is quite unknown to fishermen. The writer of the "Edible fishes of New South Wales" remarks, "How or why this fish obtained its vernacular name (Maori) it would be difficult to say, since it is not a native of New Zealand, nor indeed is the genus represented there." May not the explanation be found in the blue streaks which adorn the face, suggestive of the tattoo pattern of the Maori?

*** Silver Belly.** *Gerres ovatus*.

Station 23.

This fish, known only from sandy stretches in comparatively shallow water, was not expected at the depths at which we trawled. The only specimen secured was taken in 16-19 fathoms off Newcastle. The Silver Belly is taken in the seine throughout the year on suitable ground, and with a boat more adapted to trawling than the "Thetis" might be obtained in large numbers in shallow water close in shore, together with many other edible species.

Beardie. *Lotella callarias*.

Station 24.

Not sufficiently common in the market to be specially noticed, nor accounted of much value as food when caught by the line-fishers, the Beardie is of considerable interest from a scientific point of view. It is here one of the few representatives of the Cod family, which in the northern hemisphere includes so many fish of the highest marketable character, the capture and preservation of which provides food and employment for thousands. The Beardie is also known as the Ling.

Australian Cod. *Pseudophycis bachus*.

Stations 24, 25.

Equally unimportant with the above, this species was twice obtained, both hauls being contiguous, and off Newcastle. It has been noticed that the surface fishes of this family are almost confined to temperate and arctic zones, while the deeper inhabiting forms have a much wider range as is usual with deep-sea fishes generally.

*** Large-toothed Flounder.** *Pseudorhombus arsius*.

Stations 1, 6, 9, 11, 12, 21, 22, 23, 25, 26, 27, 32, 41, 42, 43, 44, 46, 47, 49, 50, 51, 54, 55, 57, 58.

Our experience shows that flounders and soles of various species are abundant on our shores, and may be obtained in more than remunerative quantities by means of the trawl. At present we are mainly dependent on the supply obtained by hook and line, and hence the prices charged for these prime food fishes are often prohibitive. Some species are certainly taken with the seine in shallow water, but the scope of this net is limited to the beaches; the trawl, on the other hand, not only rakes the ocean-bed, but, by reason of its greater weight and power, forces the ground-fish from their hidings in the sand and mud.

Described as being essentially a tropical species, the Large-toothed Flounder did not appear to be a whit less common in Shoalhaven than in the Manning Bight (Station 27), and, therefore, probably extends along the whole length of the seaboard of the Colony. Station 54, our most southerly haul, was within Jervis Bay.

This flounder was taken most freely in the shallower water, and the greater depth—up to 80 fathoms—yielded but one or two examples.

*** Small-toothed Flounder.** *Pseudorhombus multimaculatus*.

Stations 1, 4, 5, 6, 9, 10, 11, 12, 22, 23, 24, 26, 27, 28, 31, 39, 41, 43, 44, 46, 47, 48, 50, 51, 52, 54, 56, 57, 58.

Hitherto this flounder has been recorded on our coast only between Cape Hawke and Botany Bay. The former point was within 20 miles of the northern limit of our operations, so that we cannot extend its known range further than the Manning River in that direction. Southward, however, it was taken freely all along the coast, being especially plentiful in the Shoalhaven Bight, and obtained at our most southerly station (54), namely, within Jervis Bay. The specimens examined revealed the fact that they were in spawn, about half developed, so that approximately the breeding season may be fixed about June. This species was taken more abundantly than the Large-toothed Flounder, and was secured at all depths between 10 and 84 fathoms, being, however, comparatively scarce from 50 fathoms to the greater depths.

Crested

Crested Flounder. *Lophonectes gallus.*

Stations 1, 2, 4, 7, 9, 11, 13, 28, 33, 35, 37, 38, 41, 42, 43, 44, 46, 47, 48, 49, 50, 54, 55, 56, 57, 58.

It is a matter for regret that the Crested Flounder, the commonest flat fish secured, does not attain larger dimensions. The largest taken did not exceed 7½ inches, while few were more than 6 inches. Even at this size it should be very acceptable for the table, for what it lacks in size it makes up for in numbers. If carried out commercially, there seems to be no reason why this fish should not yield a good return for trawling. Immense quantities of fry, under 2 inches in length, were retained in the trawl whenever mud was brought up, indicating the breeding-season to be during the height of summer. Whether these fry frequent the mud only, or whether they are also found in sand and sifted out of the trawl with it, it is not possible to say.

This fish was taken all along the coast from Jervis Bay to the Manning River, and at all the depths tested from 10 to 84 fathoms.

Long-snouted Flounder. *Ammotretis rostratus.*

Station 50.

Shoalhaven Bight would appear, as indicated by our 50th station, to be a veritable haunt of flat-fishes. Of our seven species, the Narrow- and the Many-banded Soles were the only ones unrepresented, while, on the other hand, the Long-snouted Flounder was the only example of that species taken there, and the Black Sole was secured in but one other locality. The species now under consideration is very uncommon on our seaboard, and is apparently equally rare in Victorian waters, where it also occurs. If not distinct from a southern form, it ranges to Tasmania and New Zealand, and it is under the name of that species that we have here included it. The single example taken was trawled in 15-18 fathoms. It is said to be a better flavoured fish than either of the other flounders of the genus *Pleuronectes* above-mentioned.

*** Narrow-banded Sole.** *Solea macleayana.*

Stations 23, 24, 32, 51.

(Plate IX).

Two interesting and important observations have been made with regard to this species, namely, its distribution and season of spawning.

Previously it was known only from a very small portion of our coast-line, ranging from Port Hacking in the south to Lake Macquarie in the north. At station 51 we secured it very freely off the Shoalhaven River in 15 fathoms; while its northern range was extended to Cape Hawke, off which point (station 32) it was trawled in 10-12 fathoms. As against the plentiful supply obtained it may be argued that it was only taken on four occasions; it will be well, therefore, to point out that this species is most probably an inhabitant of shallow water, and that most of our stations indicate a greater depth than suits it. Station 23 was in 16-19 fathoms; and although 21-48 fathoms was sounded at the 24th station it is quite possible that this fish was taken when the trawl was first lowered, and before it descended to greater depths. It may be further pointed out that it was obtained most abundantly in the shallowest water wherein we trawled.

As far as I am aware, the breeding-habits of this species were previously unknown; it is, therefore, with particular pleasure that we are able to report knowledge gained. All the specimens of sufficient size were full of almost ripe ova, and as the extreme dates are 2nd and 19th March, the end of that month may be approximately determined as the spawning-season. Eleven inches is recorded as the maximum size obtained, but 8 or 9 is about the average. On evidence it is mature at a much smaller size, for a large number of our specimens measuring only 6 inches in length were in full spawn. As to its edible properties, all on board the "Thetis," where it was freely partaken of, pronounced it to be of admirable flavour.

*** Black Sole.** *Synaptura nigra.*

Stations 23, 50.

Writing on this species, the author of the "Edible Fishes of New South Wales" remarks:—"The Sole appears to be a purely estuary fish, never, so far as we can ascertain, having been recorded from the open sea." This statement now no longer applies, for we took two examples, one off Newcastle, and the other in Shoalhaven Bight. After all, one may naturally expect to find this fish inshore, as it occurs in all the estuaries of the New South Wales coast. Had we trawled in shallower water we might have taken more specimens, those secured having been obtained in 15-19 fathoms. Many-banded

Many-banded Sole. *Synaptura fasciata.*

Station 10.

(Plate X.)

One of the rarer soles, this species has not, I believe, been previously taken other than in Port Jackson. The only specimen we obtained was trawled between Cape Three Points and Tuggerah Lakes in 28 fathoms. Roughly speaking, it may be distinguished by its elongate form and the numerous black bands, about twenty in number, which extend across the body from the snout to the tail. Possibly not inferior to its congeners for table use, we had no means of testing its toothiness, the single representative being "sacrificed" for the benefit of science.

Saury. *Saurus myops.*

Station 23.

A few examples of this fish are occasionally taken in the seine, but on the whole it is scarcely recognised and accounted of no value. The only specimen secured was trawled in 16-19 fathoms off Newcastle.

*** Saury.** *Saurus truculentus.*

Station 21.

The specimen originally described was taken in Port Jackson, and measured 20 inches in length. Our example, the second only known, was trawled in Newcastle Bight, and measured 18 inches. It may be mentioned that some of the Australian representatives of the genus are inadequately described, and their determination is therefore somewhat difficult. The same remark applies to many of our fishes, for, as Dr. P. P. Carpenter said, with the best desire for accuracy and the greatest care, it is hardly possible for an author to so describe that his readers shall see specimens as he sees them. This difficulty is largely removed when descriptions are accompanied by figures, helps to identification which Australian authors have rarely furnished.

*** Sergeant Baker.** *Aulopus purpurissatus.*

Stations 7, 12.

The two stations at which this fish was trawled were off Port Jackson, in 62-69, and off Broken Bay, in 23-34 fathoms respectively. It was also taken with the line at three other places, namely:—Schnapper Rock, south of the Manning River; off Broughton Islands, north of Port Stephens; and southward, off Shoalhaven Bight. Although doubtless well known from the first-named locality, I am inclined to think that it has not been absolutely recorded so far north before.

*** Cucumber-fish.** *Chlorophthalmus nigripinnis.*

Stations 4, 13, 37, 38, 41, 42, 43, 46, 47, 48, 49, 56.

This fish, apparently taken only in the trawl, is quite unknown to fishermen. Although not reaching any great size, it was taken so freely that I think it would form a good marketable fish if the trawl was used commercially on our coast. It was never taken in less than 41 fathoms, and most numerous in the deepest trials (up to 84 fathoms). In still deeper water it is quite probable that we should have found it even more plentiful, for off Twofold Bay the "Challenger" expedition obtained it in 120 fathoms, the first time it was ever taken. Our examples reached a length of 8½ inches.

Flying-fish. *Exocetus evolans.*

Under the heading "Flying-fish, *Exocetus volitans*," in "A voyage to New South Wales," White wrote (p. 295):—"This fish is so well known to Naturalists, and is so frequently seen in every voyage, that it is unnecessary to give a particular description of it." Whether this fish, of which a recognisable figure is given (pl. 52, fig. 2), was obtained off this coast or not, is by no means clear, and the species has not therefore been included in the fish literature of the Colony.

During the gale we encountered off Wollongong, on March 16th, two Flying Fishes were blown aboard, and on examination they proved to be of the species in question. This fish, known from the Mediterranean, Indian, Chinese, and, in fact, most temperate and tropical seas, has been recorded from North Australia, but is now, for the first time, definitely identified from the coast of New South Wales.

* Pilchard.

* Pilchard. *Clupea sagax*.

Station 26.

The Pilchard is one of those fishes which would pay well if its movements and occurrences off our coast were thoroughly investigated and advantage taken thereof. Beyond the fact that this fish "annually appears in countless myriads" but little is known. Unfortunately we were unable to throw any further light on the subject, doubtless owing to the season at which operations were conducted not being the proper one, for Macleay says that the usual time of the annual visit of the Pilchard to the coast of New South Wales is in June and July, approximately. This is a cogent reason why investigations should be carried on for at least one complete year, then something might be learned; but after all the only real way of furthering the fishing interests of the Colony is for the equipment of a boat entirely for this and for no other purpose, and a biological station as a necessary corollary.

The only Pilchard obtained by the "Thetis" was a partially-digested example ejected by a John Dory.

Some further remarks are suggested by inquiries, occasionally made, as to whether we have a Sardine in Australian waters. Although not generally known, the Sardine of commerce is none other than the young of the European Pilchard (*Clupea pilchardus*), and the following extract from Mr. Cunningham's writings will, I am sure, be read with interest:—"There is no difficulty in distinguishing the fully-developed Pilchard at any size; it more resembles the Shads than the Sprat or Herring, but is easily distinguished from the former by the more slender body, larger scales, and weaker ventral spines. The question whether Pilchards and Sardines are the same or not is frequently raised, and the correct reply to it is the following: The Sardine of commerce is prepared on the west coast of France, from Brest southward to La Rochelle, and therefore the fish is taken in a part of the sea which is near to, and not separated from, that where the Cornish Pilchard fishery is carried on. The Pilchard extends throughout both these parts of the sea, and the Sardine is not a different fish. Pilchard is the Cornish name for it, Sardine the French. But the fish which are preserved in oil and tinned are small, young fish, from about 5 inches to 6½ or 7 inches in length, and these are not regularly caught by the Cornishmen. The difference in the product is due to the difference in the mesh of the nets used. On the other hand, full-grown Pilchards, 8 to 10 or 11 inches long, occur on the French grounds, and are fished there in winter; they are distinguished as *Sardines de dérive*, which means drift Sardines, Sardines caught by drifting with the nets without bait, while the small fish of the summer fishery are called *Sardines de rogue*, because salted Cod's roe, called *rogue*, is scattered in the water as a bait to attract the fish before the nets are shot. (An Australian would, I think, felicitously express this by the single word "Berley.") Nets of various meshes are used in this fishery, and the fishermen use the mesh which is the right size for the fish present at the time. Seines, however, have come into use in the summer fishery in recent years. There is no reason to doubt that the small Sardines could be caught in Cornish waters; in fact, they have been frequently taken in the seines there, but were not wanted, because not suited to the Cornish trade."

Although our Pilchard is not the same species as the European one, this is no reason why it should not be turned to similar account, nor why examples up to a year old should not be called Sardines, and so treated. Two conditions are, however, necessary; first, to obtain definite information as to the time the Pilchard visits our waters, at present stated to be June and July, and to verify the following remark by Macleay:—"The shoals are described as enormous, covering miles of sea, and accompanied by flights of birds and numbers of large fishes. These shoals are generally observed from 1 to 3 miles from the land, and are always proceeding in a northerly direction." The second condition would be to secure a race of fishermen, who, like the Cornish and North Sea fishermen, would follow the fish 10 or 40 miles out if need be, and experience few of the hardships to which the home fishermen are subject.

I have previously referred to the myriads of infusorian animals occasionally occurring on our coasts; it is such creatures that form a large proportion of the food of the Pilchard. Two French naturalists, MM. Pouchet and de Guerne, investigated the food of the Sardine, and found that the intestines of these fishes were crowded with minute infusorian organisms, which literally filled the digestive tubes, being recognisable even in the rectum. They concluded that the number of individuals of *Peridinia* found in the viscera of one specimen was no less than 20 millions. My colleague, Mr. Whitelegge, tells me that one species of *Peridinia* (a whip-bearing infusorian) found in the digestive tract of the Sardine, is identical with specimens abundant off the coast of New South Wales, and that many other species of the same group abound.

Spiny

Spiny Sea-horse. *Solenognathus spinosissimus.*

Stations 46, 49, 56.

Only found on the beaches after heavy weather, this curious fish is apparently an inhabitant of deep water. Several examples were trawled in from 50 to 80 fathoms, while at this latter depth a male was obtained in an interesting condition. As is well known, it is the males in the family *Syngnathidæ* who take care of the eggs and tend the young, and in the specimen referred to the eggs, glued to the under-side of the tail were fully incubated, many of the young escaping as the fish was handled.

Banded Sea-horse. *Solenognathus fasciatus.*

Station 42.

This species is much rarer than the Spiny Sea-horse, and was only once taken, in 70–78 fathoms, south of Botany Bay. It was first obtained by the members of the "Challenger" expedition off Twofold Bay, in 120 fathoms. Very closely allied to the commoner form, it can only be distinguished by a critical examination. It is scarcely necessary to mention that none of the Sea-horses are of any value from an economic point of view, but are of the highest interest to the naturalist.

*** Common Leather-jacket.** *Monacanthus tomentosus.*Stations 1, 2, 4, 5, 7, 8, 9, 10, 11, 12, 15, 17, 20, 21, 22, 26, 27, 28, 33, 44,
52, 54, 57.

Well known, too well known, as is the Leather-jacket. I rather fancy that we have extended the published range of the species, it now being recorded from off the Manning River and Jervis Bay, and of course all the coast-line lying between these two points. Previously its occurrence was summed up in the following words:—"The only localities from which this species can be recorded with certainty are the metropolitan district of New South Wales and King George's Sound." It was trawled by the members of the "Thetis" expedition at all depths between 10 and 84 fathoms, and was taken at all reefs where line and hook were put overboard, proving as irritating as usual by cutting the lines with its sharp teeth or monopolising the bait intended for more esteemed fish. In this connection, however, I would remark that "Leather-jacket" is by no means to be despised, but, as with the Skate, mentioned later, prejudice insists that it is not to be eaten.

Leather-jacket. *Monacanthus trachylepis.*

Station 49.

One specimen was obtained off Wollongong in deep water. It is not infrequently taken by the trawl in Port Jackson, and has also been received from Broken Bay. These are the only recorded localities for the fish.

Box fish. *Ostracion lenticularis.*

Stations 1, 2, 4, 8, 9, 10, 11, 12, 18, 21, 22, 23, 24, 26, 27, 32, 33, 50, 52, 54, 59.

Although obtained at so many stations, not more than two or three individuals were secured at each haul—a matter for small regret, however, considering how useless the Box-fishes are from an economic standpoint.

Crescent-tailed Toado. *Tetrodon lunaris.*

Stations 23, 26.

Inhabiting the Red Sea, the Indian Ocean, the Malay Archipelago, to China, the Pacific and the coasts of Brazil, this species may be considered to have a wide range. It has not previously been identified from New South Wales, but only just escaped, as it is recorded from Moreton Bay. On two occasions we secured it off Newcastle in 16 to 32 fathoms.

Porcupine Fish. *Dicotylichthys punctulatus.*

Stations 17, 23.

Well known, but useless as food for either man or fish, this species may be very shortly referred to; its skin is used by natives of the Gilbert Islands as a war helmet.

SHARKS

SHARKS AND RAYS.**School Shark. *Galeus australis.***

Station 20.

The only example of this shark obtained was a small specimen 3 ft. 6 in. in length. It was taken in 23-30 fathoms, off Morna Point. The members of this genus live on the bottom, and the British species, the "Tope," and from which ours scarcely differs, is very troublesome to fishermen, unbaiting the lines and scaring the fish that would otherwise be taken.

Hammer-headed Shark. *Zygæna malleus.*

Station 51.

In 15 fathoms off Shoalhaven Bight we netted a large number of these sharks. They were, however, all of small size, ranging from 1 to 4 feet in length. Curiously enough, this was the only occasion on which they entered the trawl.

The Hammer-headed Shark was the species most frequently seen, and when "Shark, oh," was called, it was generally to observe one of these brutes swimming alongside the "Thetis." The largest example noticed was computed to be about 12 feet in length (off Seal Rocks). On one occasion one of the sailors, having strung some skate, hung them over the stern in order to wash off some sepia from the cuttle-fish. Small thought was given to the shark cruising alongside, until it was discovered that the skate had been eaten off, and the shark, like Oliver, was "asking for more." At night, also, sharks kept pace with us, as indicated by the phosphorescent glow which accompanied their movements.

Hound. *Mustelus antarcticus.*

Stations 11, 12, 21, 37, 48, 49, 52.

This small shark is very common and feeds on the bottom, apparently occurring in patches over the ocean-bed. Though not frequently taken it was plentiful where secured, a dozen or more having been brought up at each of the above-mentioned stations. Newcastle Bight (station 21) is the most northerly point whence it is known; Broken Bay has hitherto had that distinction.

Grey-nurse Shark. *Odontaspis taurus.*

Station 23.

On hauling the trawl aboard off Newcastle, out of from 16 to 19 fathoms of water, some little excitement was caused on discovering that we had a shark in the net; on being hauled aboard it swept the fish right and left until despatched. It was a Grey-nurse and measured 8 feet in length. A somewhat larger example was hooked in Broken Bay. Sharks were specially attracted to the "Thetis" on account of the amount of food thrown over, such comprising mainly the inedible species, as sting-rays, fiddlers, dogfishes, &c. There has been no previous authentic record of the Grey-nurse having been taken north of Port Jackson.

Spotted Dogfish. *Scyllium anale.*

Stations 2, 10, 12, 13.

On the British coasts dogfishes are very troublesome to fishermen, and it was urged by some, that trawling could not be carried on in Australian waters on account of the numbers of these little sharks peopling our waters. If anyone suffered it would be the line-fishers for the net was certainly never interfered with. Having trawled on both British and Australian coasts I am inclined to think that dogfishes are more numerous there than here. The Spotted Dogfish was not taken commonly, the four stations not yielding more than a dozen individuals.

Collared Dogfish. *Parascyllium collare.*

Stations 1, 8, 10, 11, 13.

This handsome species was freely obtained at each of the above represented stations, all between Broken Bay and off Tuggerah Lakes. As it was known previously only from outside Port Jackson it would seem as though it is very locally distributed. This dogfish was taken in from 20 to 50 fathoms, but had been previously recorded in 70 fathoms off Port Jackson.

Wobbegong.

Wobbegong. *Crossorhinus barbatus.*

Station 24.

Obtained so freely by means of the trawl in Port Jackson, it is a little remarkable that we secured but a single specimen on the "Thetis." It has been pointed out that the fleshy fringe on the sides of the head is a unique feature among sharks and is explained by the fact that lying concealed on the bottom, amid rocks covered with vegetable and fernlike animal-forms, the shark closely assimilated thereto by its mottled and varied colouring, and by the fringes surrounding the head—such assimilation enables it to approach its prey unobserved.

Port Jackson Shark. *Heterodontus philippi.*

Stations 10, 15, 20, 21, 22, 23, 24, 25, 26, 32, 34, 50, 51, 52.

In the face of such a formidable array of stations it may be well to mention that this shark is one of the harmless kinds, and my readers may be reassured on learning that none of the specimens secured were longer than 2 feet, while the majority were but little over 18 inches. This shark is not known to grow larger than 4½ feet. Although a careful look-out was kept for the crested species (*Heterodontus galeatus*) it was never secured, and notwithstanding the fact, all the egg-cases I saw southward in the shop-windows of Wollongong and Kiama were of this latter species, those of our commoner form being either rare or quite unknown.

Angel Shark. *Rhina squatina.*

Stations 5, 7, 24, 32, 34, 35, 43, 46, 48, 50, 52, 54, 57.

Not being a commercial enterprise, angel sharks were not required as fertilisers, and were therefore returned to the place from whence they were taken. A few large examples were netted, chiefly females, which gave birth to many living young on deck, but for the most part the specimens were small. The known northern range of this species on our coast is now extended to Cape Hawke, it not having been previously recorded north of Port Jackson.

Saw-shark. *Pristiophorus cirratus.*

Stations 1, 4, 10, 13, 15, 20, 21, 24, 25, 26, 34, 37, 38, 40, 46, 57, 58.

This species must not be confounded with the Saw-fish, which is unknown from Australian waters. It never attains a greater length than 4 feet, while saws alone of the Saw-fish are not infrequently obtained 6 feet in length and a foot broad.

Numbers of Saw-sharks were frequently entangled in the meshes of the trawl and proved of some trouble, the sharp teeth of the saw rendering extrication an awkward matter. In this respect little specimens, not exceeding a foot in length, were equally annoying with the adults. The known distribution on the coast of New South Wales is now extended northward to Morna Point (station 20.)

Shovel-nosed Ray. *Rhinobatus bougainvillii.*

Stations 1, 10, 11, 22, 24, 25, 26, 32, 51, 59.

Several of these stations are recorded by virtue of a single representative and at none of the others were more than three or four taken. Of no benefit, they yet gave us small trouble, and those not required as museum specimens, were simply heaved overboard in company with sting-rays, fiddlers, and other undesirable acquisitions.

Fiddler. *Trygonorhina fasciata.*

Stations 1, 2, 21, 22, 23, 24, 25, 27, 28, 50, 54, 55, 57, 59.

As may be noticed, very little is known of our shark fauna north of Port Jackson. One result of the "Thetis" trawling expedition is the extension of the known range of many species of both sharks and rays, and one shared by the familiar Fiddler, which is now reported from the Manning Bight (station 27.)

Numb-fish. *Hypnos subnigrum.*

Stations 21, 24, 25, 52, 55.

Also known as Cramp-fish, Torpedo, and Electric Ray, this species was provocative of a good deal of amusement whenever it appeared on board. The uninitiated however shortly learned to recognise it and respect it for its qualities, so that soon no one could be persuaded to touch it even with an iron-prodder. However, at the 55th station I, unwittingly, placed my hand on the largest example obtained (2 feet 3 inches), and received a shock, with subsequent bantering, sufficient to satisfy me for the remainder of the day.

So

So much interest is evinced in this fish and its electric properties, as evidenced by the numerous inquiries I frequently receive, that I here popularise a paragraph by Dr. Gunther, in the hope that it may be acceptable:—

“The electric organs with which Numb-fishes are armed are large, flat, uniform bodies lying one on each side of the head. They consist of an assemblage of honey-comb-like prisms, divided into cells, each filled with a clear, trembling, jelly-like fluid; 470 prisms have been counted in each of the two batteries. The fish gives the shock voluntarily when it is excited to do so in self defence, or intends to stun or kill its prey. The electric currents created exercise all the other known powers of electricity; they render the needle magnetic, decompose chemical compounds, and emit the spark. The upper service of the electric organ is positive, and the lower surface negative. Examples which attain a width of from 2 to 3 feet are able to disable by a single discharge a full-grown man.”

Tasmanian Numb-fish. *Narcine tasmaniensis.*

Station 42.

After what has been written above, the intelligence that we have discovered another Numb-fish on our coast may not be popularly acceptable. I have, however, no alternative but to make it known. It belongs to a genus (*Narcine*), hitherto unrepresented in Australian waters, and is a species described from Tasmania. It was taken off Wata Mooli, once only, in 70 fathoms, and is not likely to occur in shallower water, for it is well known that the more southern forms are generally found off our coast in deep water, at a temperature more suited to their constitution. A signal instance is that of a large shell (*Voluta mamilla*), taken in the waters of New South Wales for the first time by the “Thetis,” and hitherto regarded as a characteristically Tasmanian species.

*** Skate. *Raja australis.***

Stations 4, 5, 7, 10, 11, 12, 13, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 31, 32, 34, 35, 37, 38, 39, 42, 43, 46, 48, 49, 53, 56, 57, 58.

On thirty-three occasions this valuable Ray was taken in the trawl, sometimes in enormous numbers. Considering the estimation in which skate are held in Europe, it is rather surprising that here they are classed with the Sting Rays, and are in fact not often distinguished from them. Of such account did some of my fellow voyagers consider this fish, that they preferred it to more esteemed kinds, and, as a consequence, Skate was generally to be found on the table of the “Thetis.” On asking such fishermen as know the Skate why they do not send it to market, I am told that it is unsaleable; if this be so, prejudice must be at the root of the question, and prejudice is a difficult matter to overcome. The same sentiment may be traced to the Australian natives aversion to hares and rabbits, animals which in Britain are regarded almost as luxuries, and the former classed as game, for the unauthorised destruction of which heavy penalties are inflicted. The native products—kangaroos and wallabies—are scouted as food also; why is this? The question of the skate as food is one which I recommend for the consideration of Mr. Farnell, who had many opportunities of gauging the edible properties of the fish. Apart from its considerations as an agricultural fertiliser, there would be no need for commercial trawlers to return the fish to the waters, for a ready sale could always be commanded among the Chinese and coloured population of the Colony.

As to further evidence of its edible value, I may refer to the paragraph on the Hammer-headed Shark, from which it will be seen that this epicure did not disdain skate-flesh.

At stations 49 and 56 egg-cases of this species were obtained with the embryo living within.

Giant Sting Ray. *Trygon pastinaca.*

Stations 21, 22, 23, 58.

Four of these huge rays were taken, and aggregated nearly a third of a ton, their respective weights being 160 lb., 220 lb., 140 lb., and 180 lb. approximately. At station 22, off Newcastle, the contents of the net were estimated to weigh a ton, to which the ray contributed nearly one-fifth, as shown by the scales.

Common Sting Ray. *Urolophus testaceus.*

Stations 1, 4, 7, 8, 9, 10, 11, 12, 13, 17, 20, 21, 24, 25, 26, 27, 28, 32, 33, 34, 35, 37, 38, 39, 42, 43, 47, 48, 49, 50, 51, 52, 54, 55, 57, 58, 59.

This was one of the most unwelcome species met with, in consequence of its ubiquity and profusion. Although of small size, its tail is armed with a barbed spine, which suggests cautious handling. The odium in which it was held on board could be well gauged by observing the viciousness with which the men employed impaled it with the iron prodders provided, before whirling it over the bulwarks. The spines of sting rays were formerly used by Polynesians with which to torture their victims, and are largely utilised as arrow heads, awls, and needles by many of the islanders.

Sting

Sting Ray. *Urolophus bucculentus*.

Stations 11, 24, 25.

Not readily distinguishable from the above without careful examination, this species may have occurred more freely than I have recorded, for I could not personally examine every individual sting ray before it was cast overboard. This species was also taken on the line off the jetty at Nelson's Bay, Port Stephens.

Eagle Ray. *Myliobatis aquilla*.

Stations 1, 10, 20, 21, 22, 23, 24, 25, 26, 50, 51, 52, 53, 54, 58.

Of almost cosmopolitan distribution, this ray has received many popular names, and on some parts of the English coast is called the Miller, in allusion to the form of the teeth. Each jaw forms part of a circle, and from a peculiar rolling motion, added to the crushing power of the teeth, the genus has obtained the name of *Myliobatis*—that is, Mill Skate. Other names are Bat Ray and Whip Ray.

Ghost Shark. *Chimæra ogilbyi*. (New Species.)

Stations 35, 37, 46.

(Plate XI.)

Three genera of Chimeras are known. The earliest described is the typical *Chimæra* represented by the following species:—*Ch. monstrosa*, from the coasts of Europe, Japan, and South Africa, found only in deep water; *Ch. (Hydrolagus) collieri*, from the Pacific coast of North America, abundant about Puget Sound and in South-eastern Alaska. This species swims at the surface, and is common about wharfs, while there is no evidence that it descends to very considerable depths. A single specimen identical with *Ch. collieri* in every respect of colour and form, with the exception of what may be an individual character, has been named *Ch. neglecta*. In the absence of further particulars, I prefer to regard this specimen as of *Ch. collieri*. A third species was in 1868 described under the name *Ch. affinis*, from Portugal, but since recognised from the North American side of the Atlantic at depths varying from 200 to 1,200 fathoms. It is very common in deep water on the American coast. We have now to add a fourth species, which I propose to name *Chimæra ogilbyi*, in recognition of the researches made on the fishes of Australia by my friend Mr. James Douglas Ogilby, of this city. This species is more fully discussed below.

The second genera of Chimeras, named *Callorhynchus*, is known by one species from the Antarctic basin and the South Pacific. It is the only Chimera hitherto found in Australian waters, but has never been taken off the coast of New South Wales.

Harriotta is the third genus of Chimeras represented by two species, namely, *H. raleighana*, known from the Eastern coast of North America, in depths ranging from 707 to 1,081 fathoms, and *H. pacifica*, from Japan.

Judging by analogy, and remembering that *Ch. ogilbyi* belongs to the genus *Chimæra*, I was at first inclined to regard it as *Ch. monstrosa*; it differs from this northern species by not having a distinct anal fin, by the front margin of the dorsal spine not being so markedly keeled, by having the snout more produced, the hinder margin of the second dorsal rounded, and the tail fins less developed. It finds its nearest ally in the Peninsula and North American *Ch. affinis*, but differs therefrom by having the tail produced into a long filament and the fins much lower, by the truncated ventral fins and by the dorsal spine being sub-acute at the base and distinctly keeled above. It also differs in hue, being of a beautiful silvery colour, with circles and splashes about the head—*Ch. affinis* being described as uniformly plumbeous.

When the trawl came up at 10 p.m. on March 10th, the kerosene flares revealed two Chimeras, and my fellow trawlers were, I think, somewhat amused at the enthusiasm I displayed at the capture of a couple of sharks, to which I was told I was quite welcome. The haul (station 35) was made within two miles of land, just outside Bate Bay, and directly off Port Hacking, in from 22 to 38 fathoms of water. Both these specimens were females, and as I much wanted to secure a male, Mr. Farnell kindly consented, on the following day, to run over the same ground; rock was, unfortunately, encountered as soon as the trawl was lowered, and on hauling it up it was found that the only fish taken were three Dories. After mending the net in Botany Bay another haul (station 37) was made, this time further out in 50–52, and I was extremely pleased to find four more Chimeras in the trawl—again all females. No more examples were met with until March 16th, when at station 46, off the old ground, in the deeper waters of 66–50 fathoms, a seventh specimen was secured, which, strangely enough, proved to be another female.

Here,

Here, then, at our very doors we discovered the presence of a shark, apparently common, belonging to a genus never before taken south of the equator in our region, and frequenting the shallow (shallow for members of the *Chimæridæ*) water of 22 to 66 fathoms. Into what depths this fish may journey or what un conjectured forms may exist in the abyssmal regions off our shores, remains for the future to reveal.

While studying the literature of the family *Chimæridæ* I have been surprised at the number of errors and misprints which have been perpetrated, and as this is the last opportunity afforded I may crave a few lines for what may not be quite suited to a popular essay like the present.

In "Oceanic Ichthyology," one of the most recent and pretentious publications on fishes, an extremely good figure of *Chimæra colliei* in the "Voyage of the Blossom" has been copied, but in some unaccountable way has been named *Callorhynchus antarcticus*, and so printed in the table of contents, notwithstanding the fact that it is correctly described in the text. By a typographical error *Hydrolagus* appears as *Hydbolagus colliei*. It is from "Oceanic Ichthyology" that my figure of the tail and ventral fin of *Chimæra affinis* have been reproduced. In the description of that species the following conflicting statements occur:—"The pectorals extending to the outer axil of the ventrals," and, again, "the pectoral terminating much in advance of the ventral." I presume that in the latter quotation "first dorsal" should be read for "pectoral."

In a French edition of "Cuvier's Animal Kingdom," the fishes by Valenciennes, an extraordinary figure is given on Pl. 113, purporting to be of *Chimæra monstrosa*, and said to be drawn from nature, the locality given being the Seas of Iceland. The peculiarity is that, though the figure, as a whole, represents *Callorhynchus*, the snout lacks the characteristic appendages. As *Callorhynchus* is a southern type, how came the artist to represent this genus from a specimen taken in the Seas of Iceland? Is *Callorhynchus* a bipolar form, or had he access to southern material?

Lastly, an amusing misprint occurs in Macleay's "Fishes of Australia." This reads:—"Ventral organs confluent into two pairs of laminæ in the upper jaw and into one pair in the lower." The passage becomes clear when "Dental organs" is read.

LORD HOWE ISLAND.

On March 25th the "Thetis" left Sydney for Lord Howe Island, it being intended to test the trawling character of the ground around its shores. In consequence of the extremely rough weather this proved to be impossible. After a passage of seventy hours, as against the usual thirty-six, we were landed on the island, and there left for eleven days, the "Thetis" being blown to sea in the gale, returning to Sydney for coal and supplies before taking us off.

During the first few days on the island the weather was too boisterous and the sea too high to permit of any marine work. Afterwards we were enabled to get on to the reef, and also to draw the seine in the lagoon. The "Thetis" had, unfortunately, nearly all our collecting apparatus and preservatives on board, so that we were not able to secure much material. The enormous quantities of fish, both among the rocks and on the beaches, surprised me, and seemed to indicate that a profitable fish industry might be established in connection with the island. This was first pointed out by Mr. Robert Etheridge, jun., who, together with Mr. Robert Barnes, accompanied us.

In 1888 a party from the Museum spent some time on the island, and the results were embodied in a valuable little publication. Since that time sundry additions have been made to the known fish fauna, and a few more are here chronicled; but, granted favourable weather and other circumstances, much might yet be done by a properly-organised expedition.

*Black Rock-cod. *Serranus dæmelii*.

Anchored off the island, the members of the expedition obtained many fine examples by means of the line, all of which afforded good sport. This fish is freely caught by the islanders, and attains a large size. I was told that it is sometimes secured 5 feet in length and 6 stones in weight.

*Red Rock-cod. *Trachypoma macracanthus*.

This is not the Red Rock Cod of Sydney, where it is unknown. It is very common among the rocks around the island, and we caught several with hook and line from the "Thetis." I also secured an example with my hand, and saw many more on the coral reefs from which the water had receded, leaving these fishes in the small pools and channels connecting them.

* Salmon

* **Salmon.** *Arripis salar.*

This is accounted one of the best fishes of the island; it is abundant and caught easily. Small and half-grown examples were taken in the seine every time we put it out, and the boys never failed to hook numbers when fishing off the beaches. On the mainland the Salmon is not regarded with much favour, and may frequently be had in the markets at a very low figure. Examples of 18 inches and under find more buyers, who under the name Salmon-trout imagine they are taking a different species. These smaller examples are, however, undoubtedly of finer flavour. On Lord Howe Island the larger fish were by no means to be despised, they were eaten perfectly fresh and had not undergone the mauling to which fish purchased in Sydney are so often subject before reaching the consumer.

Big-eye. *Apogon norfolcensis.*

In a large rock pool containing 6 or 7 feet of water I saw two or three specimens swimming about in company with other kinds. We obtained examples in the seine when drawn in the lagoon at night.

* **Blue-fish.** *Girella cyanea.*

In order to fully appreciate the name, this fish must be seen taken alive out of the water, it is then of a blue colour, the purity of which is only excelled by the sky above, it quickly changes colour and assumes a leaden hue. No sooner were our lines thrown over the side of the "Thetis," as she dropped her anchor outside the reef, than they were unhesitatingly tackled by Blue-fish, which were being constantly hauled aboard; the numbers of these fish peopling the waters around the island must be incredible, for the boys when fishing do not require to stay out very long in order to secure an ample supply. Examples were taken in every haul of the seine from which they made desperate efforts to escape; small specimens up to a foot in length could be caught by means of a rod when standing on the beaches. As the bait taken was invariably an animal one it may be that the Blue-fish is less partial to a vegetable diet than its black relative of the mainland, for of the Black-fish (*Girella tricuspidata*) Tenison-Woods writes:—"They may be caught in abundance in shallow water with the line, the only bait being a green confervid weed obtained on wood under sea water." When searching the rock pools for small fishes and shell-fish, &c., I obtained many Blue-fish an inch or under in length.

* **Sandy Bay Cod.** *Scorpena cooki.*

The only examples I obtained of this species were taken on the line from the "Thetis." The inhabitants of the island told me that although good eating, they did not trouble much about Rock Cods when they could get Blue-fish and Salmon so easily.

Butterfly-fish. *Pterois volitans*

One of the inhabitants of the island brought me one of these fishes, which he had found dead upon Ned's Beach, on the east side of the island. Formerly supposed to be capable of flight, as practised by the Flying-herrings and Flying-gurnards, the membrane connecting the fin-rays of the Butterfly-fish is neither long enough nor strong enough to enable it to raise itself above the surface. It is, at the same time, one of the most quaint and curious fishes one could wish to see, and is sometimes called Red Fire-fish.

* **White Trevally.** *Caranx georgianus.*

The seine always yielded us a tolerable supply of Trevally, but none of those taken exceeded 18 inches in length. The common Yellow-tail of the mainland did not appear to be known to the boys on the island. Their Yellow-tail is the fish next mentioned.

* **King Fish.** *Seriola lalandii.*

The excitement of catching Blue-fish was occasionally varied by hooking a King fish, whose powerful struggles rendered its presence unmistakable.

Dragonet. *Callionymus longicaudatus.*

A male of the Long-tailed Dragonet was brought to me by one of the islanders, he having just picked it up alive on the beach. This is the first time a member of the genus has been recorded from the island, and, I believe, only the second instance of the species being taken in Australian waters. It is a very wide spread form, ranging from East Africa, the Andamans to the Malay Archipelago, China, Japan, and beyond.

Blenny

Blenny. *Salaria quadricornis.*

On the ocean-beach many of the rockpools contained examples of this species, and I obtained specimens by baling out the water. The fish in the larger pools, where baling was impossible, seemed to be bigger than those I secured, but with fish, all the world over, the largest ones are always just missed. The finest example obtained measures $5\frac{1}{2}$ inches in length.

Hardy-head. *Atherina lacunosa.*

I obtained four specimens from a rockpool, but they are too small to render their determination a certainty. As far as can be ascertained, however, the species does not differ from that which is so very common on the coast of New South Wales. This is the first time that an Atherine has been recorded from the island.

*** Sea Mullet.** *Mugil dobula.*

A glance at the literature of Lord Howe Island would indicate that this Mullet has not been recorded from there. I was ignorant of this when on the island, and, therefore did not make special inquiries on the subject. When baling out the rockpool above referred to, I obtained a single small specimen, which the boys called a Mullet, but whether they failed to distinguish it from the next species or not, I cannot say.

*** Tallegalane.** *Myxus elongatus.*

(Plate XII.)

This Mullet is very common around the island, and was always taken in our seine net. The accompanying figure of this species is from a very careful drawing I made some time ago.

Tobacco-pipe Fish. *Fistularia depressa.*

As mentioned under the heading Rough-billed Pipe fish, the Tobacco-pipe fish, is the common species of Port Jackson, and is now, for the first time, recorded from Lord Howe Island. We took an example by the seine on drawing it in the lagoon. The members of this genus are sometimes known as Flute-mouths, to distinguish them from the Pipe-fishes (*Syngnathidæ*), more nearly allied to the Sea-horses. To those who know the greedy little Sticklebacks of English ponds it may be interesting to learn that the members of the genus *Fistularia* are really gigantic marine Sticklebacks.

Glyphidodon brownriggi.

I have previously recorded this little fish from the island, and in a rock-pool secured a single example.

Parrot-fish. *Labrichthys inscripta.*

There are many other members of the family recorded from the island, but this was the only species that fell into our hands. Many examples, up to 20 inches in length, were taken by hook and line from the "Thetis," as she lay at anchor outside the lagoon.

Panther Flounder. *Rhomboidichthys pantherinus.*

Known from the Red Sea, the east coast of Africa, to the Malay Archipelago, and beyond, this species has not before been enumerated from Australian waters, whence the only other species of the genus known was described from Port Jackson by the late Sir Wm. Macleay. Our only example was netted in the seine within the lagoon.

*** Garfish.** *Hemirhamphus intermedius.*

Walking along the sandy beaches, within the lagoon, a visitor is struck with the enormous quantities of Garfish frisking about almost at his feet. The boys wade in a few yards and catch large numbers merely by throwing in a baited hook and line. They are extremely fine fish, and by drawing the seine can be obtained in almost any quantity.

Painted

Painted Eel. *Muraena nebulosa.*

Collecting on the reef, in company with Mr. Etheridge and one of our boys, we disturbed one of these beautiful eels, and in turn all had it in our hands; it, however, fully maintained the proverbial reputation of the eel family, and finally escaped into deep water. I afterwards saw another example, and the boys told me that it is very common on the reef, but is sometimes not seen until almost trodden upon, so well does its striking colouration harmonise with the coral-formation among which it lives.

Silvered Leather-jacket. *Monacanthus nitens.*

Four years ago I first recorded this pretty little species from the coast of New South Wales, the only time it had been taken in Australian waters, and I am now able to add it to the known fauna of Lord Howe Island. It was swimming in a rockpool on the east side of the island, and I secured it by baling out the water.

Box-fish. *Ostracion fornasini.*

One specimen only was taken in the seine; the species has been previously recorded from the island, and is said to be occasionally washed ashore after storms.

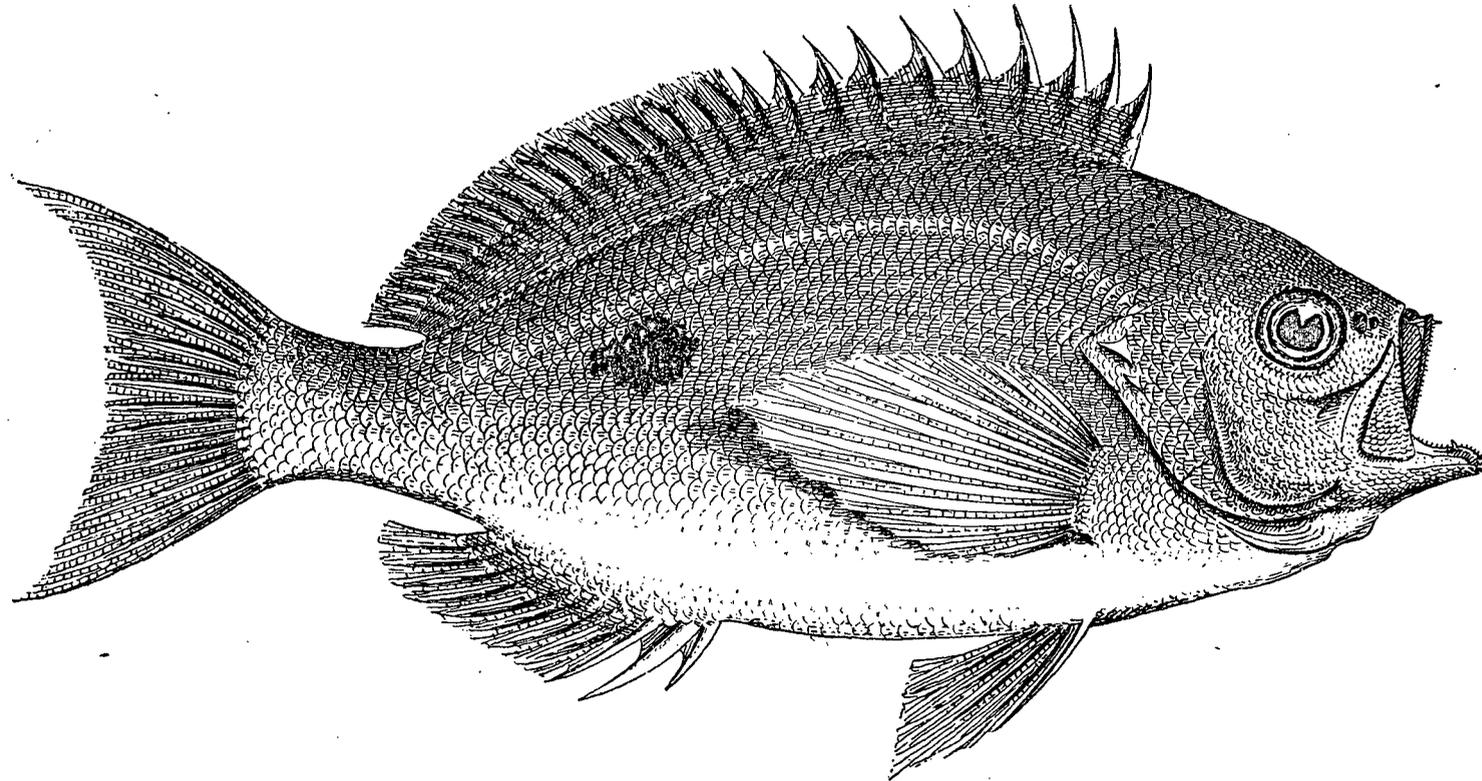
Toado. *Tetrodon stellatus.*

Known from Port Jackson, and widely distributed from the Indian and Pacific Oceans, and extending to the Red Sea, and the African coast, this species has not been previously recorded from Lord Howe Island. Two small specimens were taken within the lagoon by means of the seine.

[Twelve Plates and one Map.]

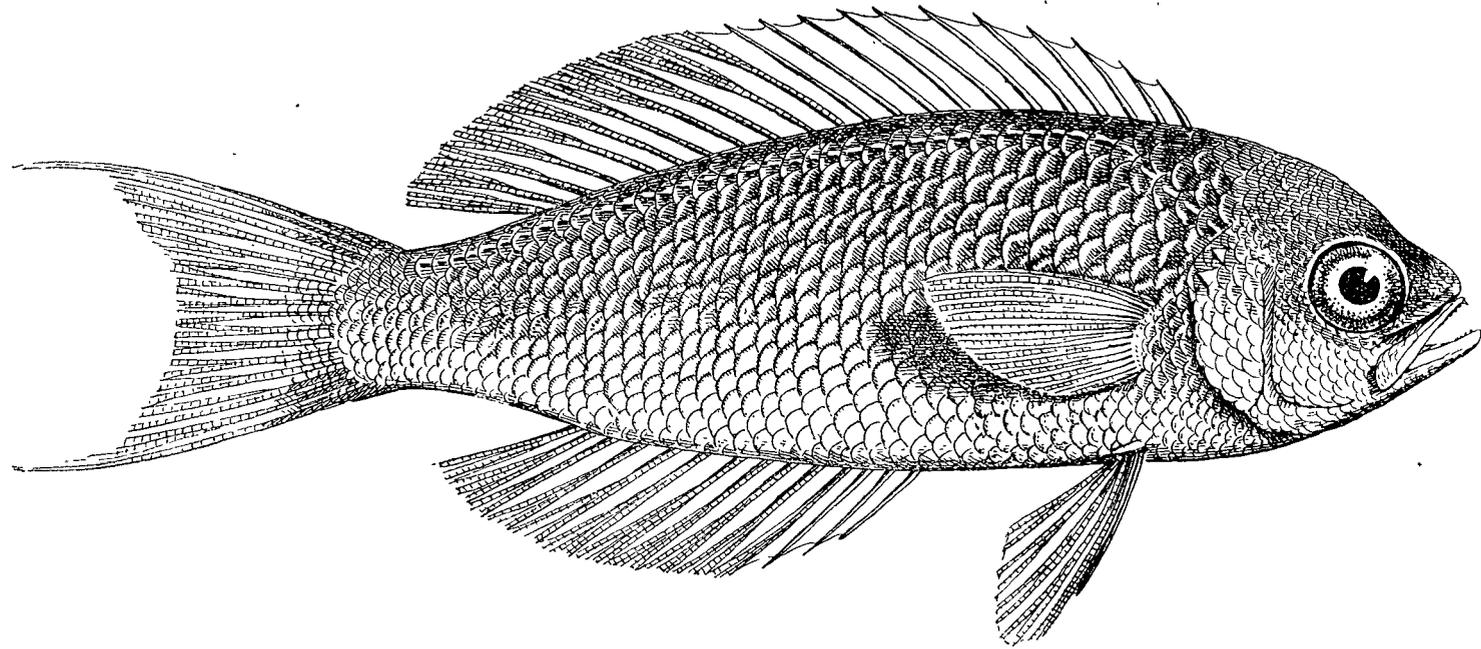
Sydney: William Applegate Gullick Government Printer.—1898

Plate I.



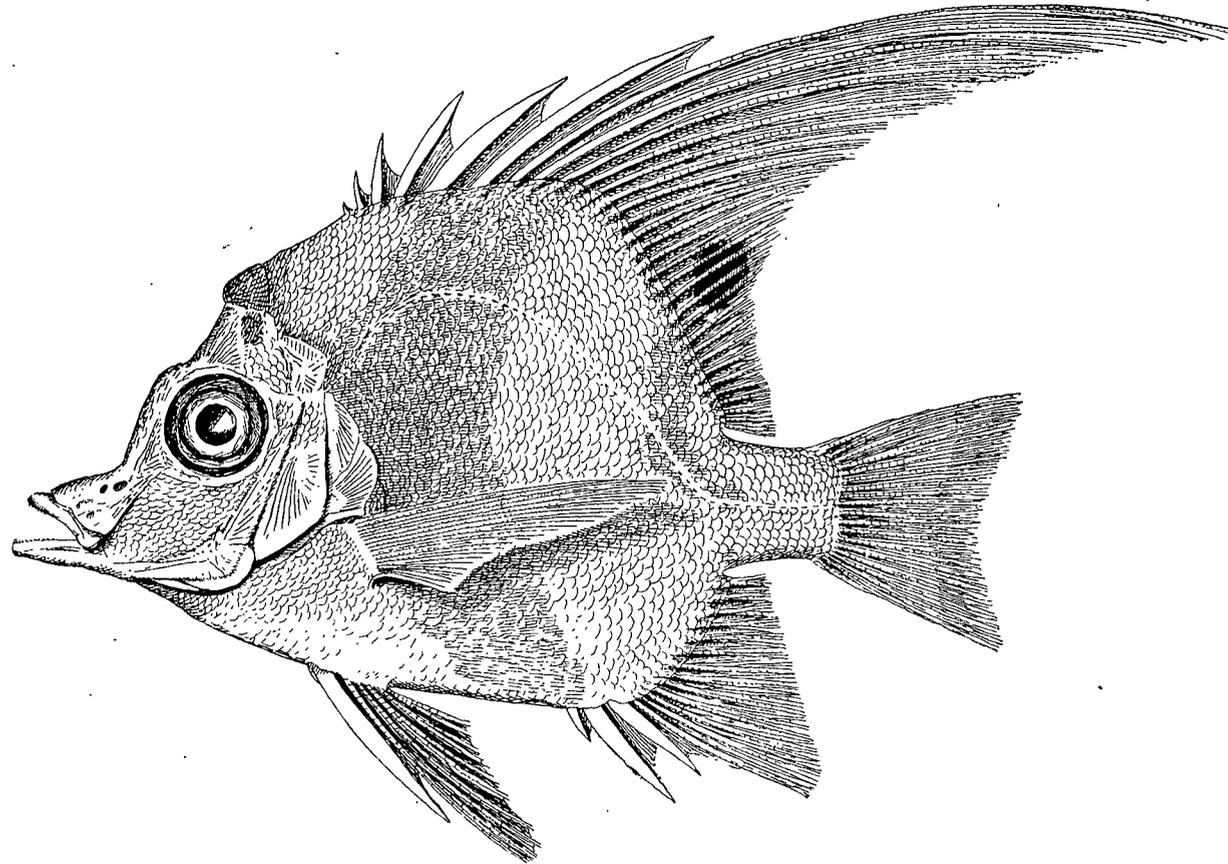
EDGAR R. WAITE, del.

BASTARD LONGFIN (*Anthias lepidopterus*).



EDGAR R. WAITE, del.

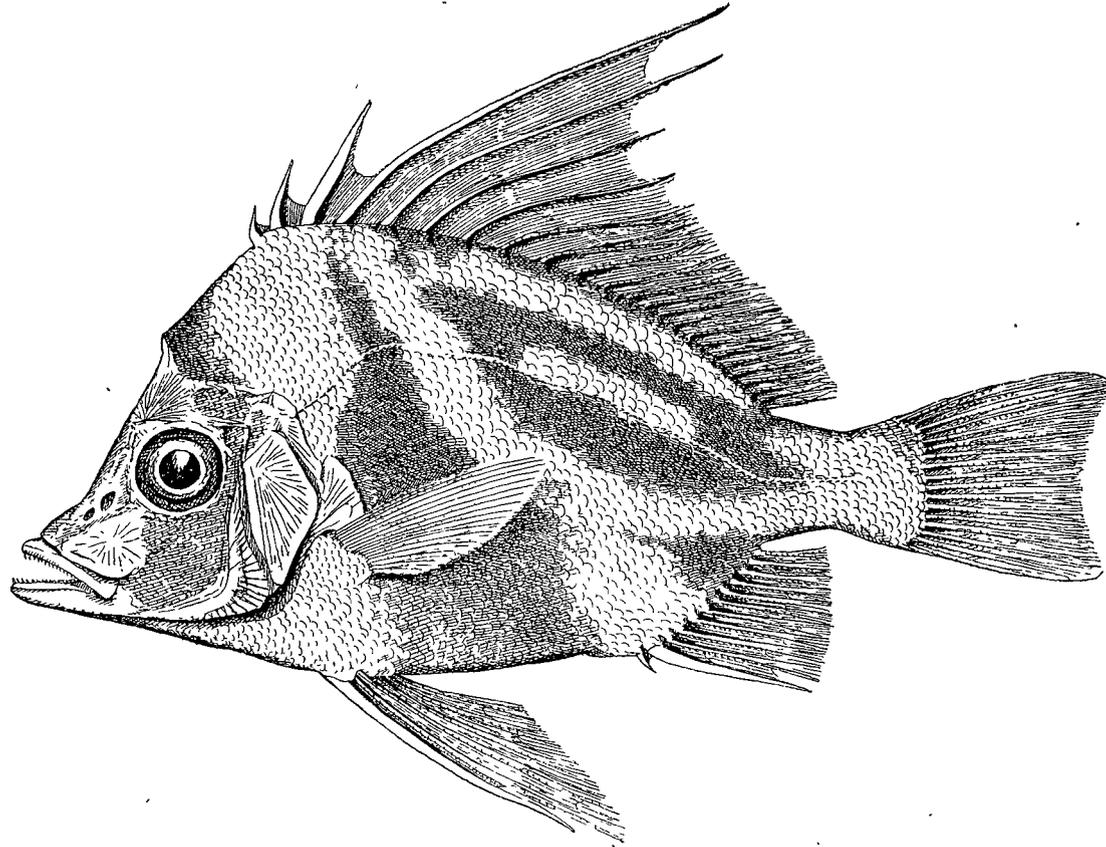
ALLPORT'S PERCH (*Callanthias allporti*).



EDGAR R. WAITE, del.

BOAR FISH (*Histiopertus elevatus*).

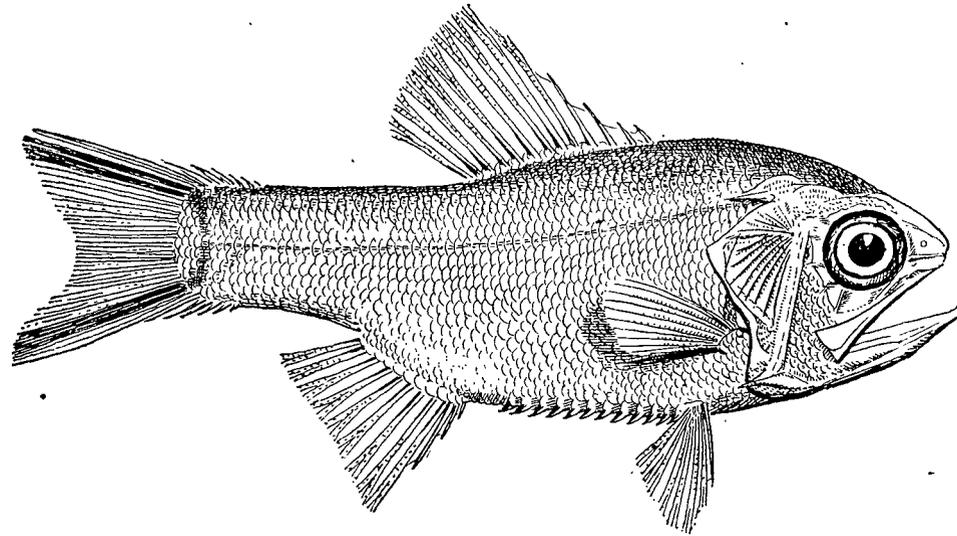
Plate IV.



EDGAR R. WAITE, del.

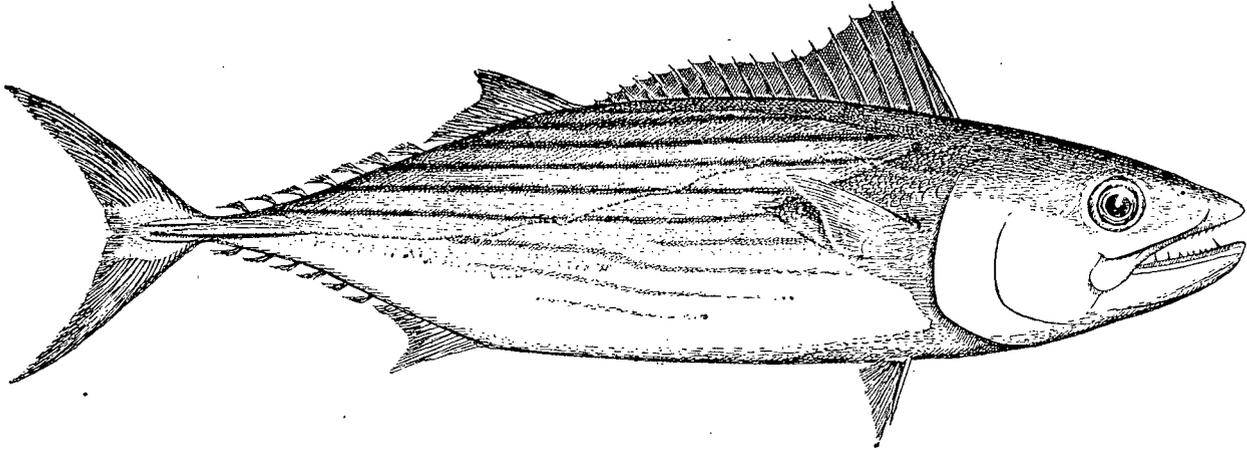
FARNELL'S BOAR FISH (*Histioporus farnelli*).

Plate V.



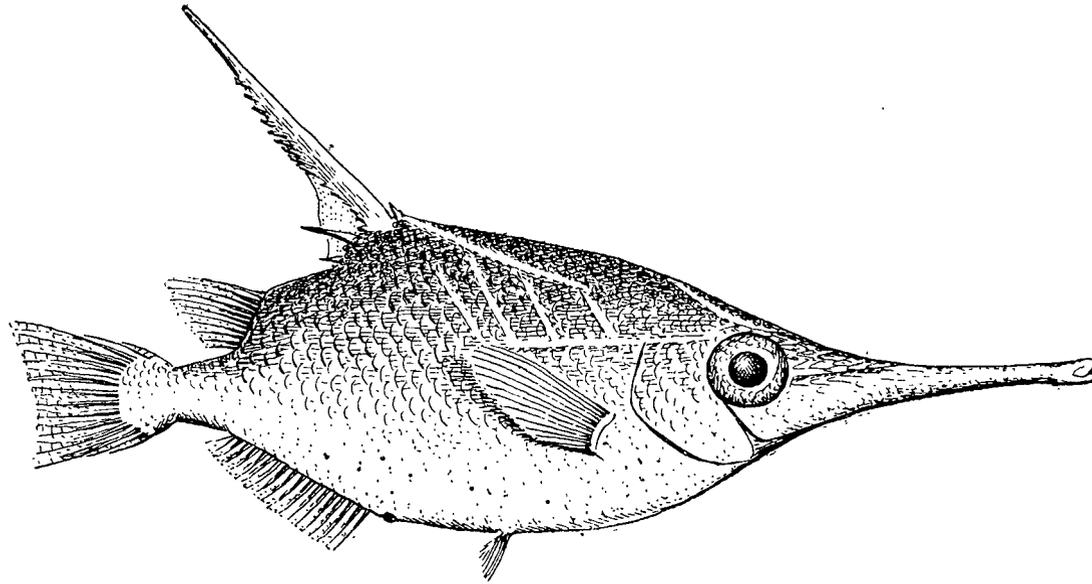
EDGAR R. WAITE, del.

LONG ROUGHY (*Trachichthys elongatus*).



EDGAR R. WAITE, del.

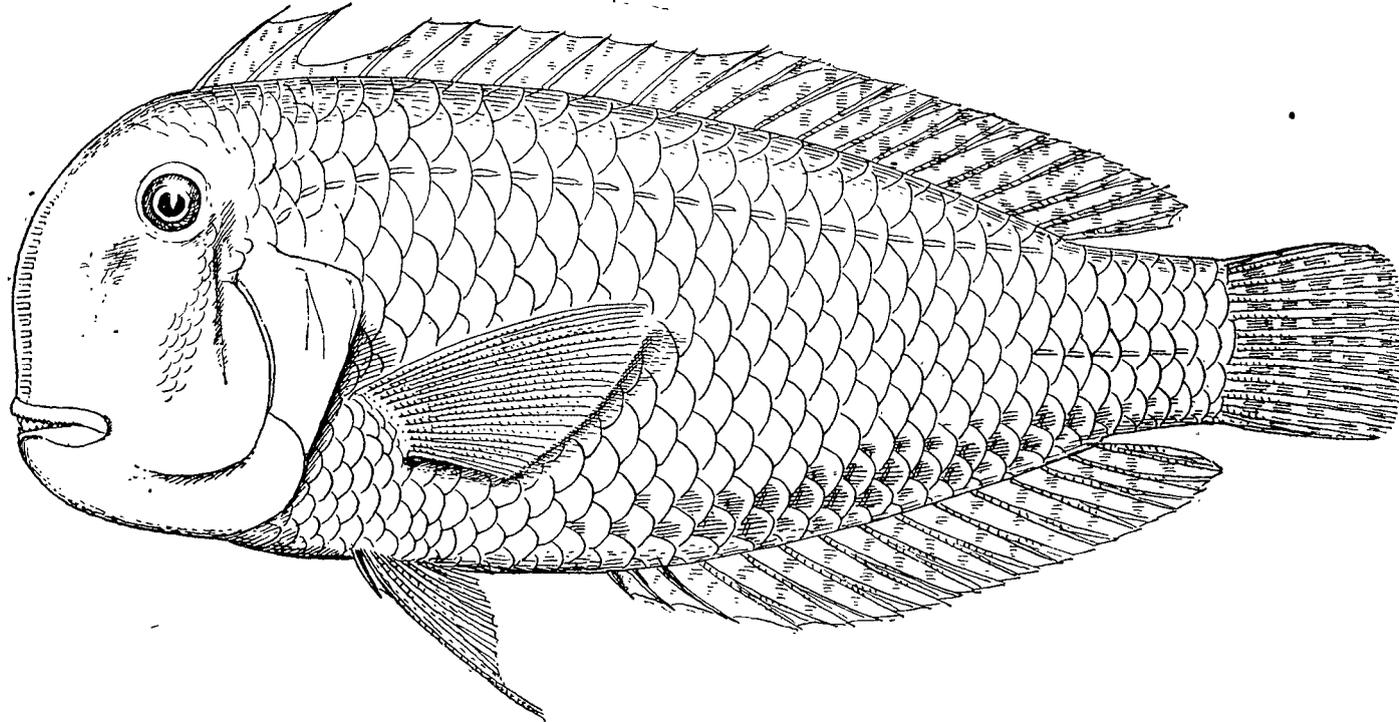
HORSE MACKEREL (*Pelamys chilensis*).



EDGAR R. WAITE, del.

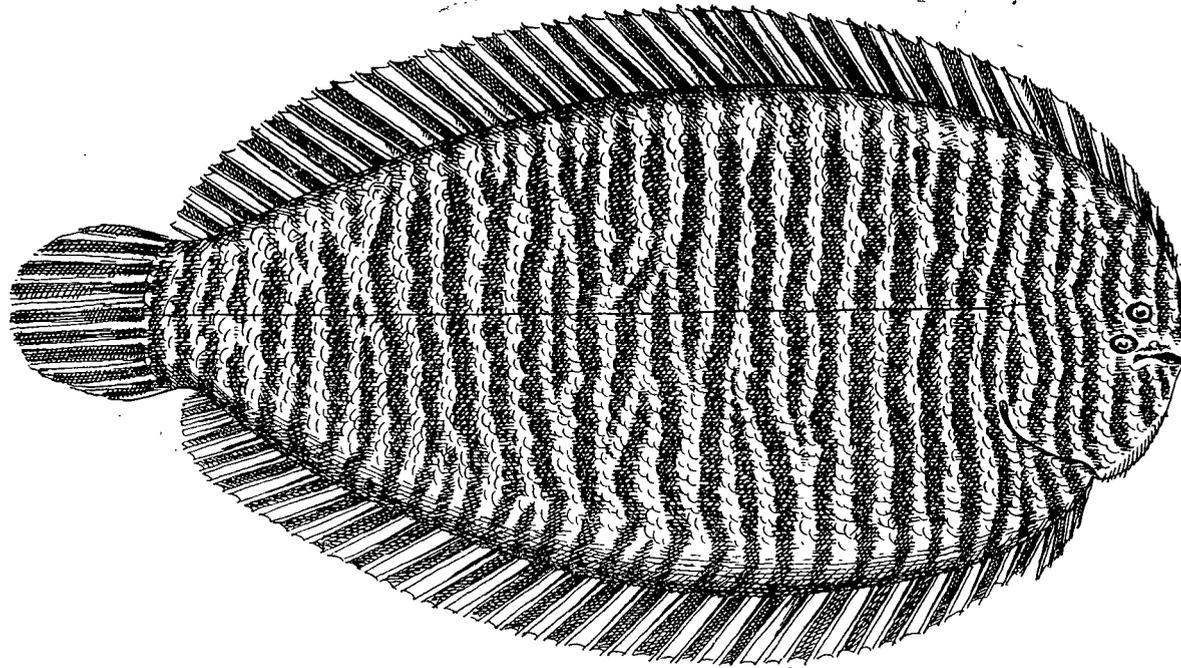
BELLOWS FISH (*Centriscus scolopax*).

Plate VIII.



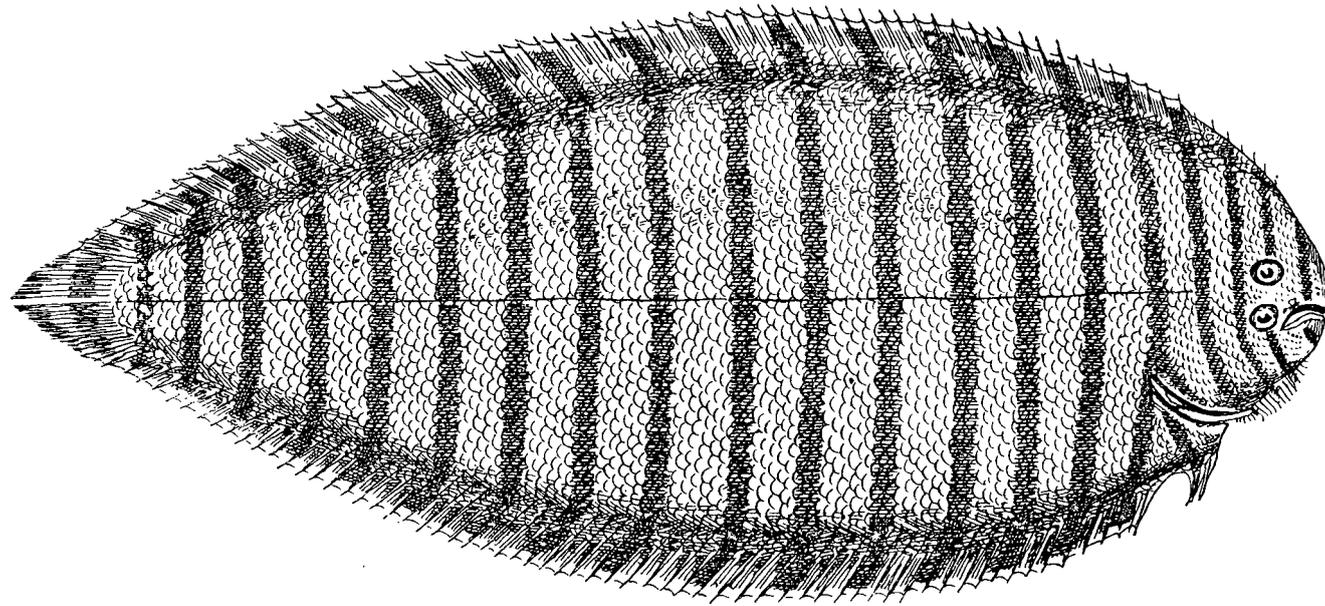
EDGAR R. WAITE, *del.*

KEEL-HEADED PARROT FISH (*Novacula jacksoniensis*).



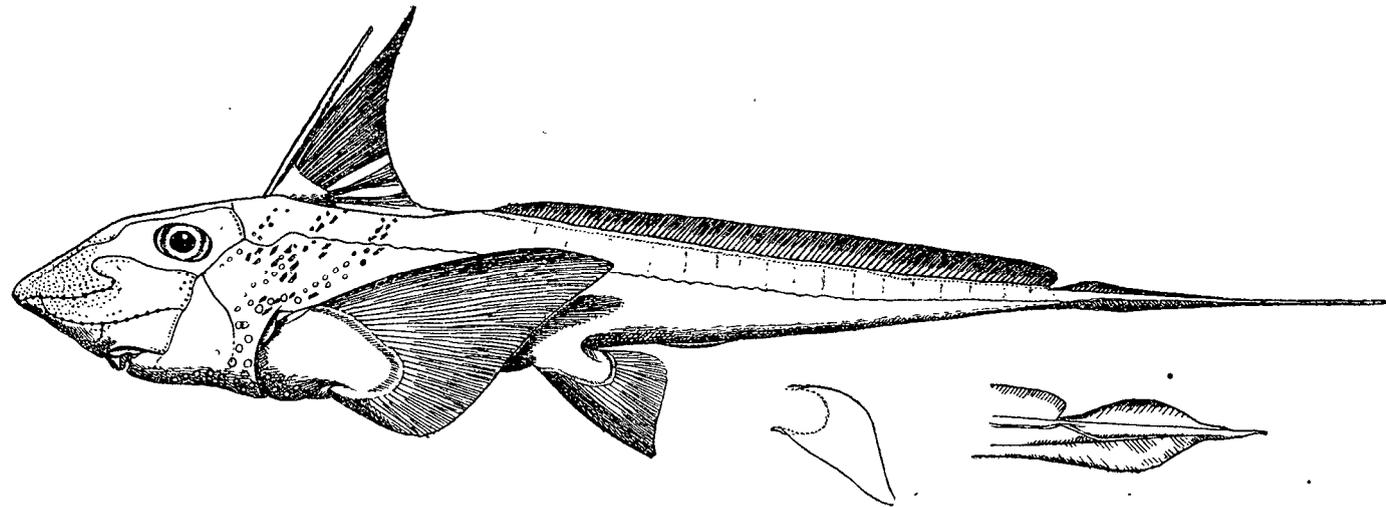
EDGAR R. WAITE, del.

NARROW-BANDED SOLE (*Solea macleayana*).



EDGAR R. WAITE, del.

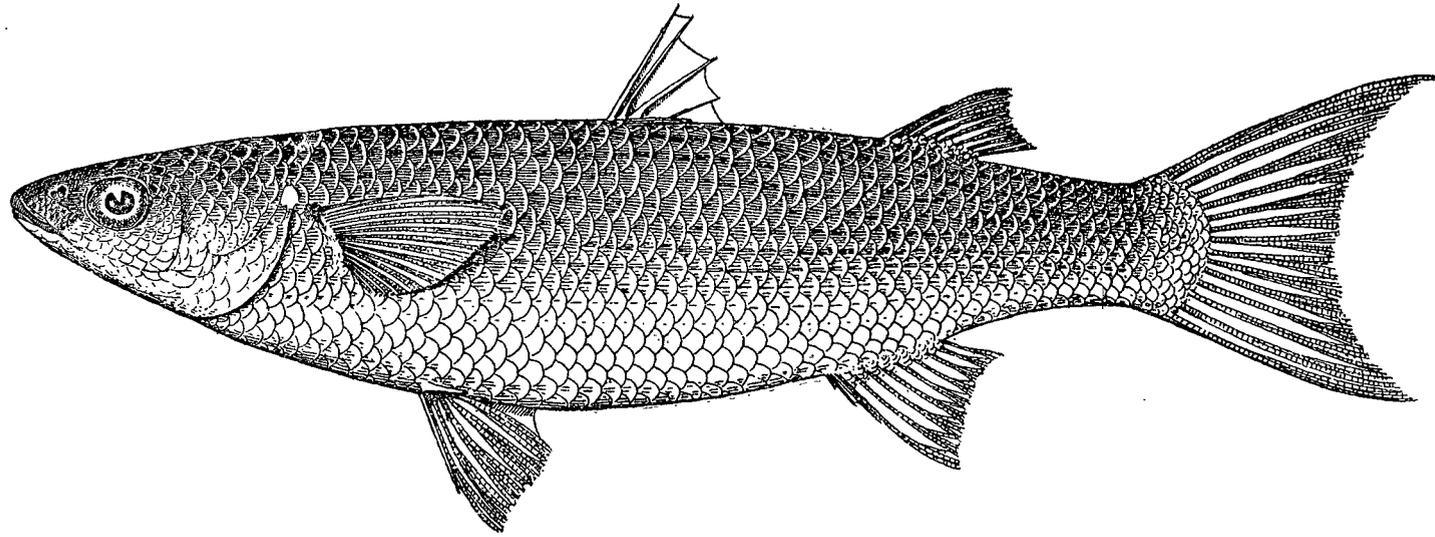
MANY-BANDED SOLE (*Synaptura fuscata*).



EDGAR R. WAITE, del.

GHOST SHARK (*Chimara ogilbyi*).

Plate XII,



EDGAR R. WAITE, del.

TALLEGALANE (*Myxus elongatus*).

1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

ANNUAL REPORT

OF THE

DEPARTMENT OF MINES AND AGRICULTURE,

NEW SOUTH WALES,

FOR THE YEAR

1897.

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

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1898.

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ANNUAL REPORT.

To The Honorable Sydney Smith, Esq., M.P., Minister for Mines and Agriculture,
&c., &c.

Sir,

I do myself the honor to submit the following report upon the working of that division of the Department under your control, which deals with mining interests, also the progress of mining and the results obtained during the year 1897.

I am pleased to acknowledge the ready assistance and the zeal which the heads of the branches and the gentlemen under them have at all times devoted to the work of the Department, thus enabling me to keep abreast of the business with the decrease in the staff at my command. It is also gratifying to note that the Wardens, Mining Registrars, and other officers under them on the fields—many of whom were comparatively strange to the work owing to the changes effected by the Public Service Board—are now thoroughly initiated in their duties, and the field work is proceeding in a manner deserving every commendation.

LEASE BRANCH.

MINING ON PRIVATE LANDS.

The number of applications for special or owners' leases, lodged in terms of section 25 of the Mining on Private Lands Act of 1894, during the year ending 31st December, 1897, was 89, covering an area of 1,863 acres 3 roods 13 perches.

The number of ordinary or general leases (other than by owners of the land) applied for during the same period, was 109, covering an area of 1,213 acres 0 roods 9 perches.

The total number of applications lodged during the year was 198.

The aggregate area applied for was 3,076 acres 3 roods 22 perches, as under:—

	a.	r.	p.
Gold	2,103	0	8
Silver	376	0	0
Gold and silver	40	0	0
Silver and lead	460	0	0
Tin	20	0	0
Machinery sites, races, &c.	77	3	14
Total	3,076	3	22

During the year 542 applications were dealt with, covering an aggregate area of 16,799 acres 1 rood 33 perches.

Of this number 364 were approved, of which 163 were for special or owners' leases, and 201 for ordinary or general leases. The total area for all leases approved being 10,844 acres 3 roods.

The balance of the number dealt with, viz., 178, were refused for various reasons, covering an area of 5,954 acres 2 roods 33 perches, and of these 88 applications were for special or owners' leases, covering an area of 4,280 acres 2 roods 2 perches, and 90 were for general or ordinary leases, embracing an area of 1,674 acres 0 roods 31 perches.

Of the 364 applications approved—

341 were for leases to mine for gold, covering.....	9,741	2	35
2 " " silver "	120	0	0
2 " " gold and silver.....	660	0	0
1 " " silver and lead.....	80	0	0
2 " " tin.....	130	0	0
16 for machinery sites, races, dams, &c.	113	0	5
	10,844	3	0

The number of applications of all kinds lodged during the past year, is less than those made during the previous year, the decrease being in both special and general leases, the numbers being respectively:—

1896.		a.	r.	p.
Special leases	183	area 3,193	0	0
Ordinary or general leases	307	" 3,423	' 0	37
	490	" 6,616	0	37
1897.				
Special leases	89	area 1,863	3	13
Ordinary or general leases	109	" 1,213	0	9
	198	" 3,076	3	22

But the number of applications which received the approval of the Governor, during the year 1897, very much exceeds that of the previous year, although the area so dealt with is less—the applications approved during 1896 being 230, area 14,063 acres 3 roods 5 perches; during 1897 being 364, area 10,844 acres 3 roods—and is accounted for by the fact that comparatively few of the applications for special leases were approved for large areas.

Besides the areas applied for to lease, 578 authorities to enter and mine on private lands have been granted by various Wardens, in terms of section 2 of the Mining Laws Amendment Act of 1896, embracing an area of some 7,268 acres, as per table, as under:—

To mine for gold	532	area 5,355 acres.
" silver	29	" 1,114 "
" silver and lead	8	" 419 "
" gold and silver	2	" 20 "
" tin and silver	1	" 40 "
" silver, tin, and lead	1	" 80 "
" tin	5	" 240 "
	578	7,268 acres.

Also 97 agreements between the owners of private lands, in terms of section 11 of the Mining Laws Amendment Act of 1896, have been submitted for your concurrence; but in the great majority of the cases this could not be given, either because the land sought to be so dealt with was "alluvial" land, which, under the section 11, is exempt from such agreements, or because of other informality; but doubtless the most of the parties have taken advantage of other sections of the Acts. In only 25 cases could your concurrence be given, and the area embraced is some 360 acres.

In addition to the holdings above specified, some 160 agreements between the owners of alienated lands and holders of miners' rights or mineral licenses have been registered by the various Mining Registrars, and a considerable area of land is held under prospecting licenses granted by the various Wardens, but information as to the quantity so held is not readily obtainable.

The decrease in the number of applications lodged for ordinary or general leases during 1897, as compared with the previous year, may be accounted for by the operation of the Mining Laws Amendment Act of 1896, which came into force on the 10th December, 1896. This result was fully anticipated, the mining public having to a very great extent taken advantage of the privileges conferred under the various sections of the Act. Under section 2 of the Act referred to, any holder of a miner's right may apply to the Warden of the district in which the private land desired to be prospected is situated for an authority to enter and prospect and mine for gold, provided such land is subject to the provisions of the Mining on Private Lands Laws, and on the issue of such authority and payment to the owner of rent, as fixed by the Warden, and compensation to the Warden, for the owner, as assessed by him, may carry on mining operations during the currency of the authority, which may be for a period of twelve months, renewable by the Warden, and, during the currency of the authority, provided the rent be paid up, the holder may apply for a lease of the land so held, or any part of it, for mining purposes.

These remarks apply also to the holder of a miner's right or mineral license, with regard to mining for silver, lead, tin, or antimony on private lands, provided the minerals in the land are reserved to the Crown.

There is little doubt that many persons who desired to obtain access to private land have taken advantage of facilities provided under this section of the Mining Laws Amendment Act of 1896, and have, without having to wait for a lease, proved the land to their satisfaction, only applying to lease in those cases where results or prospective results have warranted further expenditure, and in cases of failure have abandoned the land, and in this direction the Act appears to give much greater satisfaction than that which it partially superseded.

Taking a general view of the matter, seeing the number of applications made for leases, and of authorities to enter that have been issued, the operations under the Mining on Private Lands Laws have been very satisfactory.

MINING ON CROWN LANDS.

With regard to the acquisition of Crown lands for mining purposes, the number of applications made during the year ending 31st December, 1897, was 1,498, for an aggregate area of 22,664 acres 0 roods 39 perches.

	a.	r.	p.
Of these, 1,224 were for lease for gold-mining, for an area of ...	9,197	2	21
and the balance, 274, for mineral leases, for an area of ...	13,466	2	18
	22,664	0	39

The number of applications dealt with during the same period was			
1,871, of which 1,581 were for lease for gold-mining, for an area of	12,707	0	3
and 290 were for mineral leases, for an area of ...	12,412	0	0
	25,119	0	3

The

The following table shows the areas applied for during the year ending 31st December, 1897, and the minerals and metals to be mined :—

	a.	r.	p.		a.	r.	p.
Gold	9,197	2	21	Cinnabar	80	0	0
Silver	936	1	11	Silver, lead, copper, and zinc	40	0	0
Copper	1,240	0	0	Silver, lead, iron, and copper	210	0	0
Copper and silver	421	0	0	Opal	20	0	0
Coal	999	0	0	Silver, lead, and iron	74	0	0
Silver, lead, and copper	3,113	2	34	Tin and copper	35	0	0
Coal and shale	4,255	0	0	Silver and lead	860	1	13
Tin	140	2	0	Antimony	227	0	0
Marble	40	0	0	Oxide of iron	20	0	0
Diamonds	120	0	0	Copper, silver, and tin	40	0	0
Tin and diamonds	110	0	0	Silver, lead, and zinc	79	3	0
Manganese	86	0	0	Limestone	84	0	0
Ironstone	80	0	0	Wolfram	40	0	0
Silver, bismuth, and copper	75	0	0				
Silver, lead, and tin	80	0	0	Total	22,704	0	39

The area held under applications for leases which had not received the approval of the Governor-in-Council on the 31st December, 1897, was :—

	a.	r.	p.		a.	r.	p.
Gold	1,797	1	21	Copper and silver	80	0	0
Copper	571	0	0	Coal	168	0	0
Silver	290	0	0	Limestone	20	0	0
Coal and shale	2,380	0	0	Antimony	40	0	0
Copper, silver, and lead	340	0	0	Silver and lead	154	0	0
Iron flux	80	0	0	Tin and diamonds	100	0	0
Marble	40	0	0				
					6,061	1	21

MINING ON AND UNDER RESERVED LANDS, ROADS, &C., UNDER AUTHORITIES GRANTED IN TERMS OF SECTIONS 27 AND 28 OF THE MINING ACT OF 1874.

The number of applications received for permits or authorities to mine, in terms of sections 27 and 28 Mining Act, 1874, on and under roads, reserves, &c., during the year 1897, was 214, being 32 less than 1896.

The number dealt with during the year was 224; of these, 97 were granted and 127 were refused, showing a decrease of 78 on the number of similar applications dealt with during the year 1896.

The following table shows the area of reserved lands comprised in permits or authorities granted during 1897, and minerals to be mined :—

	a.	r.	p.		a.	r.	p.
Coal	5,662	3	12	Tin and gold	1	0	0
Shale	1,905	3	9	Copper and silver	40	0	0
Coal and shale	20,656	0	30	Silver and lead	2	0	33
Gold	273	1	21 $\frac{3}{4}$	Gold and silver	12	0	0
Copper	95	3	9				
Cobalt, nickel, and manganese...	5	1	14		28,654	2	8 $\frac{3}{4}$

This table shows the area of reserved land held under authorities to mine, issued prior to 1897 and in force on 31st December, 1897, and minerals to be mined :—

	a.	r.	p.		a.	r.	p.
Coal	16,258	0	37	Copper	64	0	15
Shale	8	2	32	Gold	190	2	25
Coal and shale	1,472	1	36				
Tin	123	2	28		18,117	3	13

This table shows the area of reserved lands held under authorities in force on 31st December, 1897, and minerals to be mined :—

	a.	r.	p.		a.	r.	p.
Gold	308	3	32	Cobalt, nickel, and manganese ...	5	1	14
Coal and shale	8,783	2	5	Tin	123	2	28
Silver and lead	2	0	33	Shale	8	2	32
Coal	19,472	1	38				
Copper	154	1	27		28,859	1	9

The areas granted under these sections during the year 1896 exceed that during 1897, the falling off during last year being principally in lands to be mined for coal and shale, but there was a slight increase in copper lands granted during 1897 over that granted during the previous year.

The areas held under authorities in force on 31st December, 1897, show a considerable increase on that held on 31st December, 1896—the increase being 5,863 acres 2 roods 13 perches.

AUTHORITIES TO DIG AND SEARCH ON CONDITIONAL LEASEHOLDS.

During the year 86 applications were received through the Warden's offices for authorities to dig and search for gold and other minerals on lands which have been conditionally leased. Of these only 18 could be favourably considered and they have been granted and authorities have issued. The applications which have been granted were for authorities to dig and search for minerals other than gold, silver, lead, tin and antimony, the remainder being for authorities to dig and search for the minerals specified, and which can be dealt with under the Mining on Private Lands Act, were declined and in those cases where the conditional leaseholds had not been brought under the operation of the Mining on Private Lands Act, the necessary proclamation under the Mining Laws Amendment Act was published and the applicants were notified that they could proceed under any one of the several provisions of the Mining on Private Lands laws. In cases where the conditional leases had already been made subject to the above laws the parties were notified as to how to obtain the right to conduct mining operations on these lands. In a good number of these cases the applicants have in consequence of these notices proceeded under one or other of the provisions of the Acts, and in very few cases have any complications arisen. In those cases where any clashing of interests has taken place, the Warden who had charge of the matter has been able to adjust the interests, placing the parties entitled to the land in occupation.

As before mentioned, the Mining Laws Amendment Act of 1896 came into force on 10th December, 1896. Under section 7 of this Act any conditionally leased land may by proclamation in the *Government Gazette* be brought under the operation of the Mining on Private Lands Act, and this Act removed a very inconvenient disability which formerly existed regarding the power to authorise mining on these lands. When the Act came into operation some 200 applications for authorities to dig and search on these lands were in abeyance, but as early as could possibly be done the conditional leases affected were proclaimed to be private lands under the provisions of the Act, and each applicant for authority was given beforehand notice of the date on which he could proceed to obtain the right to operate on the lands. This necessitated the issue of a great number of notices which were sent under registered covers, and although many of the applicants took advantage of such timely notice and proceeded under the directions given I am pleased to be able to state that no serious hitch occurred, and in the very few cases where any clashing of interest did occur the matters were definitely settled by the Warden in charge of the district, and the persons entitled to the land were placed in occupation. Whilst dealing with this question I may state that during the year some 82,129 acres of conditionally leased lands were brought by proclamation under the operation of the Mining on Private Lands laws as per Schedule hereto, thus opening to the prospector a very large area which previously was practically closed to him or only capable of entry under very unsatisfactory conditions, and the records of the Department show that a very large number of authorities to enter in terms of section 2 of the Mining Laws Amendment Act of 1896, as well as several agreements under section 11 of that Act, embrace portions of these conditionally leased lands. I might here remark that in this matter as well as in connection with section 2 under which authorities to enter and mine on private lands are issued the Mining Laws Amendment Act has operated so well as to fully justify the anticipation expressed in my report for the year 1896.

TABLE of Conditional Leases proclaimed to be subject to the provisions of the Mining on Private Lands Laws.

Conditional Lease Application Number.	C.L. No.	Portion No.	Locality.		Area.	Date of Proclamation in Gazette.
			County.	Parish.		
Hillston—91-7.....	20,783	12	Dowling	Blairgowrie	a. r. p. 1,917 3 0	23 Feb., 1897.
Tumut—C.P.L.	1,369	1,369	Buccleuch	Wyangle	1,500 0 0	" "
Queanbeyan—86-7	6,660	6	Murray.....	Purrorumba.....	960 0 0	" "
Cootamundra—91-16	21,783	98	Bland	Wallundry	298 0 0	" "
91-44	18,981	64	"	Gundibindyal	99 2 0	" "
90-105	17,402	39	"	"	960 0 0	" "
90-107	17,403	7	"	"	960 0 0	" "
92-7	23,445	72	"	"	350 0 0	" "
91-3	24,932	50	"	"	179 1 0	" "
90-111	18,964	98	"	Dinga Dingi.....	720 0 0	" "
90-98	17,401	75	"	Wallundry	274 1 0	" "
Lithgow—C.P.L.....	1,064	1,064	Roxburgh.....	Cullen Bullen ...	154 0 0	" "
Queanbeyan—7,875	7,875	51	Murray.....	Purrorumba.....	150 0 0	" "
9,132	9,132	55	"	"	406 3 0	" "
Tumut—95-1	26,595	254	Buccleuch	Wagara.....	86 2 0	" "
Barmedman—92-9	21,091	23	Gipps	Wyalong	1,098 0 0	" "
Cootamundra—87-17.....	10,413	40, 48	Bland	Wallundry	518 3 0	" "
89-17	14,010	41	"	Walladilly	640 0 0	" "
Barmedman—90-57	15,576	63	"	Cullingerai	1,800 0 0	" "
90-24	19,736	9	Bourke.....	Clermiston	1,280 0 0	" "
92-2	22,662	8	Gipps	Brolga	1,199 1 0	" "
85-173	9,939	55	Bourke	Trickett	800 0 0	" "

Conditional Lease Application Number	C.L. No.	Portion No.	Locality.		Area. a. r. p.	Date of Proclamation in Gazette.
			County.	Parish		
Bathurst—89 12	12,880	88, 24	Georgiana . . .	Mt. Lawson.....	270 0 0	23 Feb., 1897.
Burrowa—8,552	8,552	86	King	Kimber	686 0 0	" "
Carcoar—89 3	11,033	21	Bathurst	Waldegrave . . .	182 0 0	" "
Cootamundra—90-110	18,963	45	Bland	Gundibindyal . .	240 0 0	" "
Hillston—90-13	21,112	5	Dowling	Blairgowrie . . .	1,920 0 0	" "
Orange—3,665	3,665	3,665	Wellington	Larras Lake . . .	406 0 0	" "
Cootamundra—90 92	17,399	69, 80	Bland	Wallundry	960 0 0	" "
Yass—88 52	11,999	32	Murray	Toual	120 0 0	" "
Braidwood—90-5	14,578	27	St. Vincent	Jerricknorra . . .	65 0 0	" "
89 37	14,464	36	"	"	230 0 0	" "
Wagga Wagga—3,803	3,803	3,803	Bourke	Cowabbie	64 0 0	" "
8,103	8,103	8,103	"	"	960 0 0	" "
Moruya—92-22	24,402	24,402	Dampier	Nooroma	60 0 0	" "
Cootamundra—91-33	21,784	52	Bland	Gundibindyal . .	600 0 0	" "
Molong—2,626	2,626	2,626	Ashburnham	Bowen	824 0 0	" "
Queanbeyan—91-20	18,526	80	Murray	Uralla and Burra	440 0 0	" "
Tamworth—92-47	22,816	28	Darling	Eumur	200 0 0	" "
21,067	21,067	19	"	"	960 0 0	" "
91-120	23,366	137	"	Wilson	860 0 0	" "
90-237	20,547	92	"	"	890 0 0	" "
20,534	20,534	144	"	"	518 0 0	" "
Cootamundra—91-24	18,973	47	Bland	Gundibindyal . .	210 1 0	" "
Casino—90-9	17,831	17	Drake	Yulgilbar	585 0 0	" "
Queanbeyan—90-11	15,692	144	Murray	Bywong	116 0 0	" "
Wagga Wagga—85-153	9,152	67	Wynyard	Oberne	270 3 0	" "
Queanbeyan—90-68	18,518	107	Cowley	Congwarra	960 0 0	" "
999	999	999	Murray	Bywong	140 0 0	" "
88-25	10,019	122	"	Wamboin	500 0 0	" "
Tumut—86-2	9,338	16	Wynyard	Hindmarsh	250 0 0	" "
Queanbeyan—89-82	13,567	141	Murray	Bywong	200 0 0	" "
Cowra—85-7	5,686	11	Bathurst	Tenandra	640 0 0	" "
Queanbeyan—86 10	6,661	4	Murray	Purrumbaba	696 0 0	" "
89-61	12,112	139	"	Bywong	300 0 0	" "
Barmedman East—90-62	17,394	44	Bland	Calingerai	880 0 0	" "
Condoblin—93-7	24,766	29	Gipps	Wyalong	600 0 0	" "
Tumut—1,368	1,368	1,368	Buccleugh	Wyangle	1,200 0 0	" "
Cowra—85-4	5,415	13	Bathurst	Tenandra	640 0 0	" "
Goulburn—90-16	16,919	34	Argyle	Oallen	320 0 0	" "
Barmedman—68	68	68	Gipps	Bolagamy	1,200 0 0	" "
Cootamundra—91 6	18,965	44	Bland	Gundibindyal . .	240 0 0	" "
Tumbarumba—90 120	23,905	125	Goulburn	Coppabella	960 0 0	" "
Rylstone—94-12	26,433	100	Roxburgh	Crudine	664 2 0	" "
Armidale—4,395	4,395	4,395	Sandon	Saltash	650 0 0	" "
Bathurst—94-1	25,649	73	Roxburgh	Crudine	723 0 0	11 May,
Mudgee—94-34	26,215	80	Wellington	Weronera	627 2 0	" "
Barmedman—90-84	15,630	13	Gipps	Wyalong	900 0 0	" "
Wellington—85-33	6,670	37	Bhgh	Yarragal	450 0 0	" "
1,781	1,781	1,781	"	Wunluman	290 0 0	" "
Armidale—4,110	4,110	4,110	Sandon	Enmore	645 0 0	" "
Cassilis—94-16	25,487	146	Bhgh	Puggoon	294 0 0	" "
Condoblin—91-44	18,369	7	Cunningham	Barratta	900 0 0	" "
Cootamundra—90-96	18,962	94	Bland	Wallundry	640 0 0	" "
90-106	21,780	34	"	Gundibindyal . .	960 0 0	" "
Tamworth—91-69	21,057	17	Darling	Eumur	960 0 0	" "
91-119	23,365	133	"	Wilson	937 2 0	" "
95-29	26,724	66	"	Tiabundie	300 0 0	" "
583	583	583	"	Wilson	650 0 0	" "
Wagga Wagga—3,814	3,814	3,814	Wynyard	Kilgowla	1,740 0 0	" "
Yass—88 51	12,978	4	Murray	Murrumbatema . .	480 0 0	" "
89-12	12,420	3	"	"	870 0 0	" "
Carcoar—86 38	7,501	262	Georgiana	Julong	640 0 0	" "
Tumbarumba—91-55	24,071	5	Selwyn	Nurenmerenmong .	480 0 0	" "
Condoblin—90-144	15,612	19	Gipps	Nerang Cowal . .	1,920 0 0	4 May,
Cassilis—91-11	17,891	6	Bhgh	Cope	300 0 0	29 June,
Molong—2624	2,624	2,624	Ashburnham	Cumble	1,920 0 0	" "
91-14	20,068	64	"	"	450 0 0	" "
95-1	26,850	73	Gordon	Veech	480 0 0	" "
Tamworth—94-62	25,925	42	Darling	Welsh	960 0 0	" "
Wellington—4,391	4,391	4,391	Wellington	Burrandong	372 0 0	" "
Orange—C.P.L.	3,668	3,668	Bathurst	Beneree	284 0 0	" "
Yass—89-18	12,419	83	Murray	Nanima	120 0 0	9 July,
Barmedman—90 20	15,648	4	Gipps	Boolga	1,920 0 0	16 "
Bingara—92-24	24,394	4	Murchison	Anderson	900 0 0	" "
Dubbo—87-201	13,384	31	Narrowmine	Bulgandramine..	553 1 0	" "
Wellington—90-41	19,337	69	Bhgh	Nanima	600 0 0	" "
Yass—86 13	6,309	252	King	Crosby	277 2 0	" "
Tamworth—92-111	24,544	10	Parry	Bullball	885 0 0	20 "
92-112	24,545	8	"	"	864 0 0	" "
Orange—90-5	15,363	77	Wellington	Larras Lake	475 0 0	" "
Armidale—C.P.L.	4,839	72	Sandon	Woolomombi	560 0 0	3 Sept.,
C.P.L.	8,018	72	Clarke	Chandler	690 0 0	" "
Cootamundra—89 8	14,630	30	Bland	Gundibindyal . .	640 0 0	" "
Molong—91-171	21,706	52, 71	Gordon	Ganoo	300 0 0	" "
Orange—92 6	22,637	236	Wellington	March	400 0 0	" "
Rylstone—87-11	9,456	61	Roxburgh	Tabrabucca	1,150 0 0	" "
Wellington—7,440	7,440	39	Bhgh	Yarragal	900 0 0	" "

Conditional Lease Application Number.	C.L. No.	Portion No.	Locality.		Area.	Date of Proclamation in Gazette.
			County.	Parish.		
Armidale—*93-13	24,492	111, 120	Sandon	Tilbuster	a. r. p. 659 0 0	14 Sept., 1897.
Orange—*93-9	23,456	237, 238	Wellington	March	527 0 0	" "
Armidale—91-156	19,829	47	Clarke	Avondale	300 0 0	17 " "
91-105	19,818	49, 38	"	Avondale and Rockvale.	596 0 0	" "
C.P.L.	2,123	2,123	"	Rockvale	385 0 0	" "
"	4,107	4,107	Sandon	Enmore	780 0 0	" "
Carcoar—85-12	7,058	1	Bathurst	Carlton	509 3 0	5 Oct., "
91-6	19,006	86, 114	"	"	532 0 0	" "
Grenfell—C.P.L.	1,655	1,655	Monteagle	Brungar	527 0 0	" "
Molong—92-9	22,216	71	Ashburnham	Nangar	285 0 0	" "
Dubbo—87-119	8,422	9, 34	Narromine	Bulgandramine..	514 1 0	" "
Tamworth—95-46	27,511	43	Darling	Welsh	748 0 0	16 Nov., "
Queanbeyan—85-59	5,307	43	Murray	Purrorumba.....	600 0 0	7 Dec., "
Armidale—90-259	19,591	69	Clarke	Rockvale	128 0 0	" "
Cootamundra, Central	4,280	4,280	Clarendon	Ivor & Trevethin	960 0 0	" "
Parkes—87-38.....	7,971	17	Kennedy	Kadina	606 0 0	" "
Molong—95-22	27,333	271	Gordon	Newree.....	720 0 0	10 " "
Albury—C.P.L.	6,088	6,088	Goulburn	Jindera and Mungabarina.	(ex roads) 375 0 0	" "
Queanbeyan—C.P.L.	747	747	Murray	Jingera	(ex roads) 1,920 0 0	21 " "

* Proclamations of 14/9/97 to take effect from 16/7/97.

During the year 1897 only twelve applications were made by owners of alienated lands for permits to mine for and remove the minerals in the land which, under the terms of alienation, were reserved to the Crown, but this may be accounted for by the operation of the Mining on Private Lands Acts, which provide for mining on these lands for gold, silver, lead, tin, and antimony.

Of these applications six were granted and permits issued, being to mine for minerals other than those enumerated above.

During the same period seven applications were made for authorities to dig and search for gold, &c., on residential leases on gold and mineral fields. Of these, two were approved and authorities issued, and five had to be refused.

Under section 23 of the Crown Lands Act of 1895 provision is made for the granting of settlement leases over somewhat extensive areas of Crown lands. The lands embraced by these holdings are exempt from the operation of the Mining Act of 1874, and also from the provisions of the Mining on Private Lands laws, but the Secretary for Lands has made provision in the form of lease to be issued for authorised search for gold and minerals, and on discovery for the resumption of so much of the leasehold as is required for mining purposes. Under this provision any person duly authorised by the Secretary for Mines may enter and search for gold or other mineral on such portion of the settlement lease as may be suitable, but so as not to interfere with any improvements on the land; and in the event of discovery so much of the settlement lease as may be required for mining purposes may be resumed or withdrawn therefrom if the importance of the discovery warrant such a course, when the discoverer will be held to be the first applicant for a claim or lease, as the case may be, of the land or part thereof occupied by him for the purpose of searching.

During the year only three such applications have been lodged, and of these two have been approved and one refused; but it is anticipated that in the future when it is generally known that these leaseholds can be operated upon in the above manner a considerable number of these authorities will be applied for. It is not expected that this system of searching will prove more satisfactory than did the almost same method operate in connection with conditional leases under the Mining Act of 1889, being somewhat cumbersome and, on account of delay to the prospector, by reason of the necessary action to be taken before he can make a good title to the land likely to cause serious dissatisfaction and trouble, but the method of procedure is the best that can at present be arranged. The matter will not be lost sight of, and endeavours will be made to have the system improved.

Another matter I would invite attention to is the Church and School Lands Act of 1897, which came into force on the 6th December last. Under this Act, all Church and School lands become Crown lands under the Mining Act of 1874, and can be so dealt with. This will throw a considerable area of auriferous and mineral lands open to occupation under the Mining Act of 1874, which previously could only be occupied under the Church and School Lands Mining Acts, and will probably result beneficially far as mining occupation is concerned.

It is also provided that the lessee under any lease of Church and School lands for mining purposes now in force, may apply within a period of six months from the date of this Act, to convert his lease into a lease under the provisions of the Mining Act of 1874.

The investigation of titles under the Mining on Private Lands Act has, since April, 1896, been carried out in the Department.

In all applications for leases under this Act it is necessary to investigate the title to the land applied for, in order that the proper persons may be joined in the lease, and the compensation money and rent made payable to the persons entitled thereto. This work involves a large amount of searching in the Land Titles Office, Registrar-General's Office, &c., and the perusal of a large number of title deeds, &c. In many cases, owing to the unwillingness of owners to produce evidence of their title, the investigation has been made from such information as could be obtained from the records of the Registrar-General's Office, and from other available sources. The same work has had to be carried out in regard to the payment of compensation to owners under authorities to enter issued under the Mining Laws Amendment Act, the Department having to be satisfied as to ownership before payment of the money can be authorised. Applications for permits under section 7 of the Land Act, 1884, have also entailed similar work.

The undermentioned cases have been dealt with by the officers in charge of this work :—

Leases	...	...	...	...	{	Conditional Purchases...	...	...	242
						Torrens' Title ...	...	...	80
						Old System Titles	...	...	151
									<hr/> 473
Authorities to Enter and Permits, section 7, Land Act	...	...	...	...	{	Conditional Purchases	...	...	103
						Torrens' Title ...	...	...	35
						Old System Titles	...	...	12
									<hr/> 150
Special Searches	...	...	...	...	{	Conditional Purchases	...	...	12
						Old System Titles	...	...	20
									<hr/> 32

REGISTRAR LEASE AND INQUIRY BRANCH.

The following table, giving area of Crown and private lands held under lease at the 31st December, 1897, and the minerals to be mined for, shows satisfactory progress in the mining industry.

The area held for gold-mining purposes is 9,166 acres in excess of that under lease on the 31st December, 1896; of this 4,567 acres were for leases taken up on private property, the balance being Crown lands. There is also an appreciable increase of nearly 6,000 acres in coal and shale lands, and many of the leading minerals show satisfactory improvement.

As regards diamond-mining there are now about 3,000 acres under lease, and in the Bingara district efforts are being made to bring a permanent supply of water on to the field. Should this be accomplished, there is no doubt that this class of mining will receive a good impetus.

During the year 442 gold leases, representing 2,693 ac. 2 rd. 36 per., 120 mineral leases, representing 4,188 ac. 1 rd. 16 per., and 5 private lands leases, representing 2,540 ac. 1 rd. 42 per., were cancelled. The total area of land thus thrown open was 9,422 ac. 1 rd. 14 per., and nearly 75 per cent. of this area has since been re-applied for.

There has also been a noticeable increase in the transfers of mining properties registered in the Department, which may be regarded as indication of the increased activity in mining generally.

A marked improvement, and one which is appreciated by the public, has been made in the system of issuing plans. In place of the ordinary lithograph, which is necessarily at times months behind date, the Department is issuing heliographs for the principal districts, and the public are now able to obtain information up to the date of inquiry. This arrangement has, I am pleased to say, given very general satisfaction.

As an evidence of the work performed by the Department throughout the year attention is invited to the fact that 1,700 leases were delivered, and, allowing for the leases cancelled, there are now 1,133 more leases in force than at 31st December, 1896.

The rents and royalties have been, as a rule, promptly paid, and less difficulty has been experienced in collecting the revenue this year than hitherto.

RETURN

RETURN showing the area of Crown and Private Lands held under Lease at 31st December, 1897, and the Minerals, &c., to be mined for.

Minerals, &c.	Crown Lands Occupation Act, 1861.			Mining Act, 1874.			Mining Act Further Amendment Act, 1884.			Mining on Private Lands Act, 1894.			Total.		
	a.	r.	p.	a.	r.	p.	a.	r.	p.	a.	r.	p.	a.	r.	p.
Alum and alumstone				160	0	0							160	0	0
Alunite				2	0	0							2	0	0
Antimony				106	0	9							106	0	9
Antimony, bismuth, copper, and tin				120	0	0							120	0	0
Bismuth				40	0	0							40	0	0
Cinnabar				200	0	0							200	0	0
Coal	2,324	0	0	2,009	3	36	31,548	2	27 $\frac{1}{2}$				35,882	2	23 $\frac{1}{2}$
Coal and shale							13,076	1	29 $\frac{1}{2}$				13,076	1	29 $\frac{1}{2}$
Copper				1,635	3	12							1,635	3	12
Copper, lead, and tin				80	0	0							80	0	0
Diamonds				2,183	3	3							2,183	3	3
Diamonds and tin				1,055	0	16							1,055	0	16
Emeralds				40	0	0							40	0	0
Graphite				80	0	0							80	0	0
Infusorial earth				10	0	0							10	0	0
Ironstone				20	0	0							20	0	0
Lead				20	0	0							20	0	0
Lead and limestone				20	0	0							20	0	0
Limestone				211	2	30							211	2	30
Manganese and wolfram				40	0	0							40	0	0
Marble				40	0	0							40	0	0
Opal				845	1	12 $\frac{1}{2}$							845	1	12 $\frac{1}{2}$
Platinum				20	0	0							20	0	0
Silver				2,429	3	35			210	0	0		2,639	3	35
Silver and bismuth				223	0	0							223	0	0
Silver, bismuth, and cirium				40	0	0							40	0	0
Silver and copper				260	0	25							260	0	25
Silver, copper, and manganese				40	0	0							40	0	0
Silver, copper, and tin				55	0	0							55	0	0
Silver and lead				3,356	1	20	40	0	0	80	0	0	3,476	1	20
Silver, lead, antimony, and bismuth				29	2	36							29	2	36
Silver, lead, antimony, copper, tin, & zinc				120	0	0							120	0	0
Silver, lead, asbestos, and copper				60	0	0							60	0	0
Silver, lead, and copper				3,762	3	8 $\frac{1}{2}$							3,762	3	8 $\frac{1}{2}$
Silver, lead, copper, and ironstone				940	1	11 $\frac{2}{3}$							940	1	11 $\frac{2}{3}$
Silver, lead, copper, and zinc				57	3	29							57	3	29
Silver, lead, and ironstone				641	2	2							641	2	2
Silver, lead, ironstone, and marble				360	0	0							360	0	0
Silver, lead, and limestone				797	3	6							797	3	6
Silver, lead, and tin				240	0	0							240	0	0
Silver, lead, and zinc				253	3	0							253	3	0
Silver and limestone				60	0	0							60	0	0
Sulphate of alumina and potash				10	0	0							10	0	0
Tin				612	1	8	34	2	16	700	0	0	1,346	3	24
Tin and precious stones				80	0	0							80	0	0
Tin and wolfram				8	0	0							8	0	0
Turquoise				10	0	0							10	0	0
Not specified				20	0	0							20	0	0
Gold				16,678	0	22 $\frac{2}{3}$	208	2	35 $\frac{1}{2}$	10,216	0	7 $\frac{9}{16}$	27,102	3	25 $\frac{1}{2}$
Gold and all minerals										8	1	0	8	1	0
Gold and copper										20	0	0	20	0	0
Gold and silver										1,785	0	0	1,785	0	0
Gold, silver, and lead										44	0	34	44	0	34
Gold, silver, lead, tin, and antimony										51	0	8	51	0	8
Land leased for purposes of water conservation, machine sites, &c.										84	0	0	84	0	0
Total	2,324	0	0	40,086	2	2 $\frac{2}{3}$	44,908	1	28 $\frac{1}{2}$	13,198	2	9 $\frac{9}{16}$	100,517	2	0 $\frac{2}{3}$

THE COAL MINES REGULATION ACT, 1896.

This Act, which came into force on the 1st October, 1896, repealing an Act passed in 1876, has been found to work well. A very complete report on the working of our collieries during the year, by Mr. A. A. Atkinson, the Chief Inspector of Collieries—who arrived from England early in September to take up the position—forms an appendix to this report.

THE PROSPECTING BOARD.

The amount of the Prospecting Vote for the year is again £25,000.

During the year 1897 prospecting operations have been vigorously carried on throughout the Colony, both under the vote and also by means of private enterprise.

A matter which has received the Board's attention during the year is the question of increasing the reward of £1,000 offered for the discovery of payable quartz at a depth. It is a noteworthy fact that the deepest quartz mine in New South Wales has only reached a little over 1,000 feet in depth, while in Victoria payable stone is being raised from five mines over 3,000 feet in depth, and from seven mines over 2,700 feet in depth; the deepest being Lansell's No. 180, at Bendigo, which, at the end of 1896, had reached

reached 3,352 feet. At Charters Towers the shaft on the Brilliant Extended Block is down 2,558 feet, while the Brilliant Extended shaft is only a few hundred feet less. The saddle formation, which occur in the districts referred to, are favourable to deep sinking. This fact should not, however, deter our mine owners from exploiting their ground at a greater depth. With the object of testing the reefs on the Wyalong field at a lower level, the Board recommended that aid be granted to the Lighthouse claim to continue the 360-foot shaft to 500 feet. At the end of the year the shaft had reached 504 feet.

The following is a copy of the amended notice of reward for deeper sinking:—

AMENDED NOTICE OF REWARD FOR DISCOVERY OF PAYABLE GOLD AT A DEPTH.

NOTICE is hereby given that the following rewards are offered for the discovery of payable gold at deep levels, viz. :— £2,000 to the person or persons who shall first discover and make known to the Minister for Mines and Agriculture a payable gold deposit at or below 1,500 feet, and £3,000 to the same or other person or persons first discovering and making known to the aforesaid Minister payable gold at or below 2,000 feet.

The depths in each case being measured from the top of the shaft, which may be vertical or inclined.

The deposit in each case shall be deemed payable when 250 tons from it have been broken down, raised, and treated (at approved works) from or below the depths named, under the supervision of officers of this Department, and when the claimant or claimants prove to the satisfaction of the Minister for Mines and Agriculture that such operations have been attended with profitable results.

The right is reserved by the aforesaid Minister to make check-tests of stone to be treated.

The reward to lapse if not claimed within five years after date of this notice.

The proposed Drainage Race, Araluen Valley.

Consideration of this scheme has received the Board's earnest attention; but in view of the importance of the undertaking, and the large amount required to carry out the work, it was decided to have the most complete information on the subject before making their recommendation to the Minister. With this object in view, Mr. Geological Surveyor Watt, M.A., &c., was instructed to proceed to the Valley and make a thorough examination of the locality likely to be affected by the proposed race. Mr. Watt went fully into the matter; and as his report will prove of interest to a large number of miners and others interested in the proposal, it is given in full.

THE ARALUEN VALLEY AND ITS ALLUVIAL DEPOSITS.

The valley of the Araluen Creek, which is formed by the junction of Major's, Deep, and Bell's Creeks, has a general north-west and south-east trend, and is almost entirely surrounded by elevated mountains.

The part of the valley considered in this report is 3 miles in length and three-quarters of a mile in width, and lies between the village of Araluen and Crown Flat.

Owing to the fact that the creek hugs its south-west bank, no alluvial deposits of any extent occur on that side; but on the other side alluvial deposits and talus slopes extend for at least half a mile from the present bed of the creek.

The area covered by these deposits in this part of the valley is a large one, as shown on the accompanying map by letters A, B, and C.

Of the areas so marked on the map, A represents approximately the extent of the worked ground. The other two areas, marked B and C, indicate roughly the extent of the unworked or "virgin" ground.

The object of indicating them by different letters is to emphasise the fact that the deposits covering those areas differ widely in their character and origin, and must, therefore, be considered separately.

Worked Ground.

The alluvial workings have been almost entirely confined to an average width of about a $\frac{1}{4}$ of a mile, and include the present creek bed.

This ground, which has yielded an enormous amount of gold, has been completely worked out, with the exception of a few isolated blocks. These scattered, unworked pieces of ground were left standing owing either to the poverty of their contents or to the difficulty of coping with the water.

Unworked Ground.

Of the "virgin" ground the blocks in the bed of the creek mentioned above do not require serious consideration in connection with the proposed race owing to the paucity of their number, their small size, and the doubtful value of their auriferous contents.

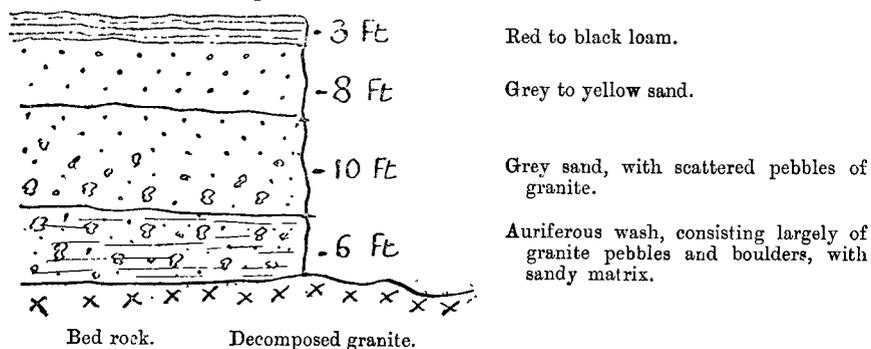
In Bruce's claim, which is situated on the edge of the *unworked ground*, marked "B," there is some evidence that the creek deposits are beginning to taper off against the talus slopes from the mountains on the north-east side of the valley. In the open workings on this claim it was observed that on the creek side the depth of wash was about 10 feet, while on the hill side it did not exceed 4 or 5 feet.

Work on the claim adjoining Bruce's on the north-west was suspended on account of the poverty of the ground, caused by the presence of large blocks of barren deposits.

Within the same area, and on the hill side of these claims, some prospecting was done in 1882 by the owners of the Burrell Estate. Seven or eight shafts were sunk and a little driving done without discovering anything of a payable nature. I was informed that the sinking varied from 5 to about 20 feet, and that merely colours of gold were obtained.

The shallow sinking on the sites of the prospecting shafts compared with that in the bed of the creek, which is nearly 30 feet, indicates, what might have been surmised, that the bed-rock rises as we approach the foot of the mountains, making it probable that the greater portion of the gold, which in the Araluen Valley is invariably fine, would have been swept down into the main channel of the creek.

The following is a section of the deposits as seen in Bruce's claim:—

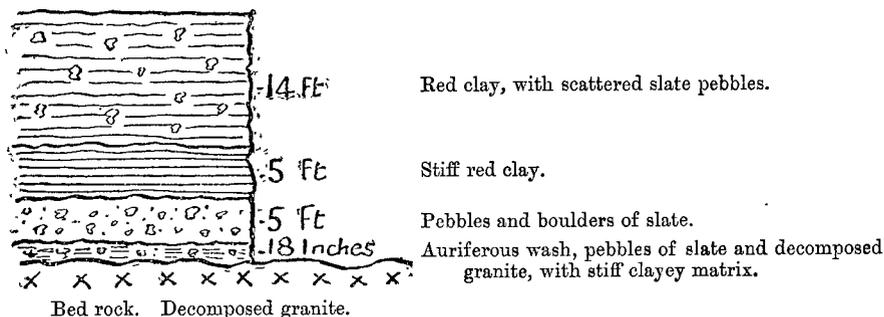


It will be observed that, with the exception of the 3 feet of loam at the surface, the strata consists of sand with numerous boulders of granite at the base.

The other division of unworked ground, viz., that marked C as mentioned above, differs widely in structure and probable origin from that just described.

As

As seen in the accompanying sketch, the strata exposed in Barrett's claim consists very largely of red clay, with scattered pebbles and boulders of slate. The wash, which varies in thickness from 4 feet on the creek side to about 18 inches on the hill side, is of a very stiff clayey nature, and rests on a bed-rock of granite.



As to the origin of the greater portion of the materials composing these deposits, I think there can be little doubt but they have been brought down by Stony Creek, which flows over altered slates near the junction of the granite and the sedimentary strata.

There are two claims (Barrett's and Doogan's) in which work is being done on the edge of this ground, and from both of which fairly payable results are being obtained.

Emphasis is laid on the difference in the character and probable origin of the materials covering this area from those occurring in the main creek, for the purpose of showing that it is impossible to argue in favour of the presence of gold over the hatched area (C) from the circumstance that it was present in large quantities in sandy deposits (A) of the main creek.

Schemes proposed.

In November, 1892, a proposal was made to cut a race up the valley for a distance of about $3\frac{1}{2}$ miles, to drain off the water and enable the ground to be worked without incurring the heavy expense entailed by the employment of steam pumps.

This proposal was subsequently modified, levels were taken, and later borings put down by the Water Conservation Department to enable an estimate of the cost of the race to be arrived at. The revised estimate of the cost of the proposed race of the size and length suggested—viz., 6 feet high, 6 feet wide at the base, and 5 feet at the top, and $2\frac{1}{2}$ miles in length—is about £11,000.

A modification of the size of the race has been suggested to me by several of the Araluen diggers. It is very generally held locally that a race of the proposed size would be much larger than what is required, and that one 4 feet square in section throughout, or 4 feet square at the upper end and 5 feet square at the lower end, would be large enough, and could be constructed for £6,000 or £7,000.

In the absence of the requisite data I am not in a position to comment on this suggested modification, but simply put it forward for consideration as the opinion expressed to me by several of those locally interested.

In support of the scheme it may be urged that—

- (a) As described above, there is a fairly large area of unworked ground, some portion of which may possibly carry gold in payable quantities.

Some of the most enthusiastic of the local supporters of the scheme even went so far as to assert that they thought the whole of the alluvial deposits in the creek bed would pay to put through, if, as they thought probable, the men were in the near future reduced to work for about £1 per week.

These deposits comprise the whole of the worked ground, and consist for the greater part of old "strippings," "tailings," and "forkings." But as the concentration of the gold in the wash-dirt appears to have been fairly perfect, owing to the loose and open character of the overlying material, it might reasonably be expected that these would be of a very low value, and would scarcely pay, even under the most favourable circumstances.

- (b) There might be a distinct lead within the area occupied by the unworked ground, marked C, on the map. At the present time, however, there is practically no evidence of the existence of any such lead.
- (c) There would be a great saving in the cost of winning the gold, enabling ground to be worked which would otherwise not pay.

Against the proposed scheme it may be urged that—

- (a) Although a large area of ground is available for working, the little evidence that exists as to the value of the area marked B does not support the belief that extensive deposits of gold will be found on this land, while there is practically no evidence as to the value of the remainder of the unworked ground, viz., that marked C.
- (b) In the two claims (Barrett's and Doogan's) working on the red clay deposit, and on the edge of the area marked C, it is found possible to cope with the water at a trifling cost by means of a Californian pump, worked by a water-wheel. By this means the water is raised 9 or 10 feet to the level of a drainage race.
- (c) The greater part of the ground to be worked, being that portion, which it is acknowledged will be especially served by the proposed race, is similar to that met with in Barrett's and Doogan's claims, and it is, therefore, reasonable to suppose that—with tolerably favourable seasons—there will be no great difficulty in coping with the water.

Summary.

That there is a very large area of ground in the Araluen Valley which has not been worked can be seen on a glance at the accompanying map. This fact alone would not justify the construction of the proposed race, for the important question arises—does this "virgin" ground contain auriferous deposits of sufficient value to enable them to be profitably worked in the event of the race being constructed?

To this query I can only answer that on one portion of the ground, viz., that marked "B," there is a claim working apparently with payable results, but that all the indications point to a diminution in the yield of gold and, perhaps, its gradual disappearance as the workings advance towards the hills on the east side.

On the other portion, marked "C," we have to deal with deposits of different constitution and probably of different origin, on which practically no prospecting has been done.

The two claims working on the edge of it are obtaining results which, although they do not compare with those formerly obtained in the main creek leads, are yet considered payable. In the absence of evidence, furnished by prospecting, it can be only said that none of the rich leads have ever been traced into it, and that the very fact that so little work has been done on it indicates a want of faith in the value of the ground.

In conclusion, I can only say that as the justification for the expenditure of the large sum of money required for the proposed work must be found in reasonable expectations of the Government being recouped for its outlay, and as the present state of developments do not permit such expectations to be entertained, I cannot recommend the carrying out, at present, of the scheme.

I would, however, suggest that—as no doubt can exist as to the advisability of further prospecting the area marked "C"—nothing definite be done in connection with the construction of the race until the ground has been further prospected.

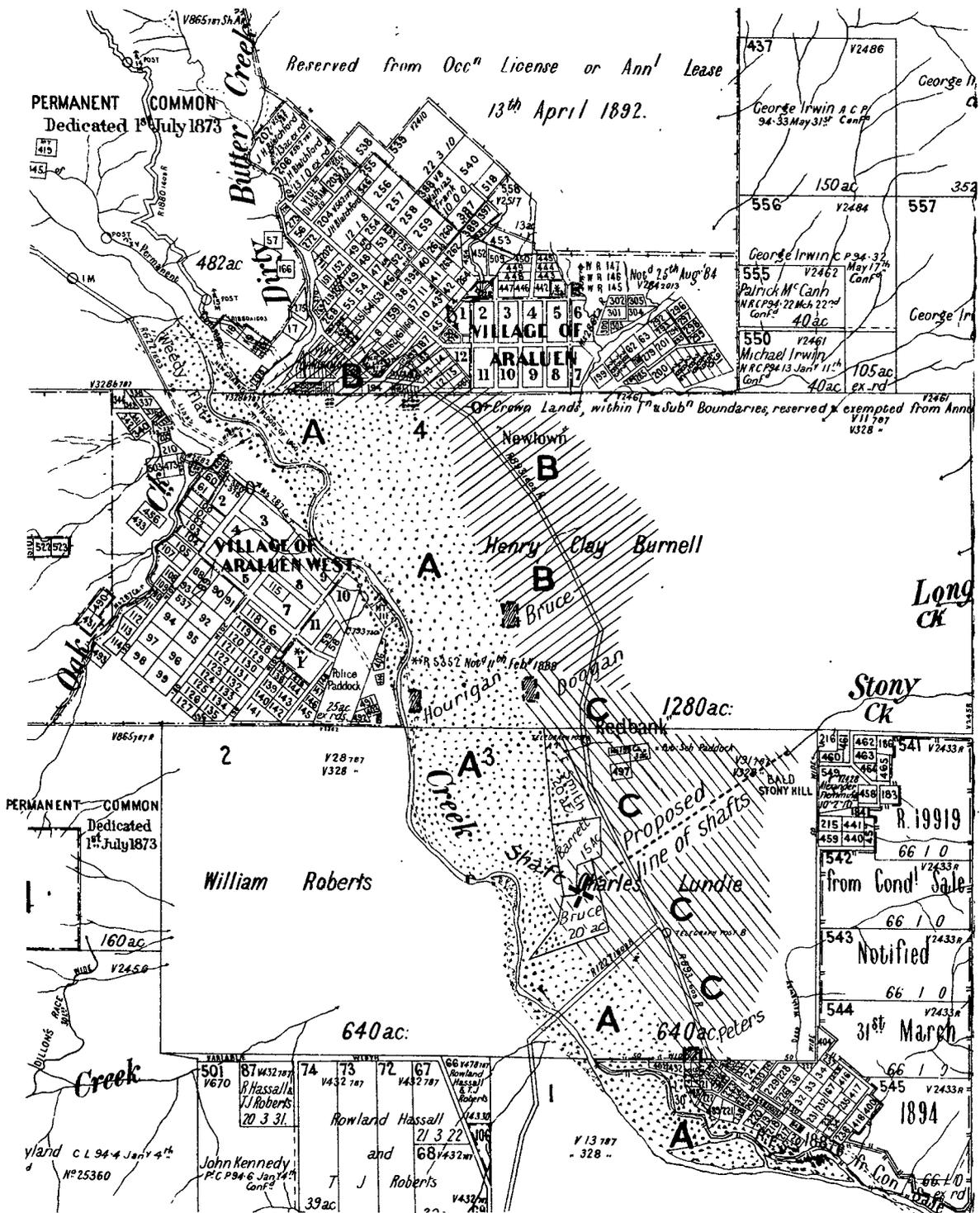
The Board unanimously adopted Mr. Watt's report. Tenders were called for, and the work is now proceeding. The result of the operations will settle the point whether the expenditure of the amount required to carry out the proposed race will be justified.

The geological examination and testing of the country lying on the Victorian Border have been completed by Mr. Geological-Surveyor Carne, F.G.S., and his report on the results from the examination forms an appendix. The

THE ARALUEN VALLEY

Parish of Araluen. County of St Vincent.

Scale 0
0
40
80
 Chains



Reference.

- A A** Worked ground.
- B B** Un-worked do.
- C C** do. do.

The indications found by the Government diamond drill, prospecting for the deep lead at Forest Reefs, proved so encouraging that the promoters, known as the Ballarat Gold-mining Company, have started sinking on the lead, and they expect to reach bottom at an early date.

The Board held 36 meetings during the year. Of that number—

Mr. McLachlan, Chairman, attended	35	Mr. Watt, Geological Surveyor	...	...	20
Mr. Pittman, Government Geologist	20	Mr. Milne, Inspector of Mines	...	...	8
Mr. Slee, Chief Inspector of Mines	29	Mr. Godfrey,	..	...	1
Mr. Sullivan, Chief Clerk	...	Mr. Hooke,	..	...	4
Mr. Carne, Geological Surveyor	...	Mr. D. McCulloch, Secretary to the Board	...	...	36
Mr. Jaquet,	...				12

The absence of the Geological Surveyors and Inspectors of Mines in the country prevents their regular attendance.

Mr. E. C. Whittell, an officer of the Geological Branch, was kept fully employed during the year reporting on applications for assistance from the Vote, and has given satisfaction to the Board.

The total number of applications for aid received during the year was 1817, a slight decrease as compared with 1896.

These were dealt with as under:—

Aid granted in	1896.	1897.
Aid refused in	523 cases.	533 cases.
Applications abandoned	985 "	889 "
Applications for public batteries	39 "	68 "
For reward for the discovery of new gold-fields	41 "	13 "
For free treatment of ore	21 "	9 "
Miscellaneous cases	21 "	15 "
	212 "	292 "
	1,842 cases.	1,817 cases.
Applications awaiting inspection at the end of the year	59	43

The foregoing figures only give the number of the papers brought before the Board for discussion, the total number of communications received in connection with the administration of the Vote during the year being 5,223.

That the efforts made to have the applications dealt with as expeditiously as possible after receipt have been eminently successful is proved by the table, which shows that at the end of the year only 43 applications awaited inspection.

Some idea of the immense area of country to be dealt with by the Board may be gained from a glance at the following list of the localities visited during the year by the members. It will be seen that without a very large staff of officers it would be impossible to visit each locality oftener than twice a year, and in cases when applications are received from a district just after its inspection, some little delay must necessarily follow.

List of localities visited by the Board during the year.

Adaminaby	Bowning	Colinton	Gilgai	Kiandra	Nimitybelle	Tilba-Tilba
Adelong	Bowraville	Condobolin	Gilgunnia	King's Plain	Nine-mile	Tichborne
Albury	Box Ridge	Coolac	Girilambone	Lewis Ponds	Nowendoc	Tingha
Alectown	Braidwood	Coolalie	Glanmire	Limekilns	Nundle	Trundle
Apple-tree Flat	Bredbo	Coolongook	Glen Elgin	Lionsville	Oberon	Trunkey Creek
Araluen	Brimbramalla	Cooperbrook	Glen Innes	Lismore	O'Connell	Tucklan
Armidale	Broken Hill	Cooma	Goolma	Long Creek	Ophir	Tuena
Arable	Brown's Creek	Copeland	Grafton	Lucknow	Orange	Tumut
Back Creek	Bulli	Corowa	Grenfell	Lyndhurst	Palmer's Oakley	Two-mile Flat
Bald Nob	Bucca Bucca	Coramba	Gulgong	Macksville	Pambula	Uralla
Ballina	Bundarra	Cowra	Gundagai	Major's Creek	Parkes	Upper Turon
Barmedman	Bungendore	Cowra Creek	Gundaroo	Marulan	Peak Hill	Upper Orara
Barraba	Bungonia	Crookwell	Gunning	Michelago	Peel	Wagga Wagga
Barber's Creek	Burnt Yards	Crudine	Guyong	Milparinka	Pretty Gully	Wagonga
Bateman's Bay	Burrier	Cudal	Guyra	Mogo	Rawdon Vale	Walbundrie
Batlow	Burruga	Cudgegong	Hanging Rock	Molong	Rockley	Walcha
Bear Hill	Burrowa	Dalmorton	Harden	Moonan Brook	Rylstone	Wangat
Bega	Byng	Davisville	Hargraves	Moruya	Sebastopol	Warne
Bell's Creek	Byrock	Deepwater	Hazelgrove	Mount Hope	Scone	Welcome Reef
Ben Bullen	Byron Bay	Delegate	Hermidale	Mount M'Donald	Sofala	Wattle Flat
Bermagui	Cadia	Demondrille	Hill End	Mudgee	Stannifer	Wee Jasper
Billy's Look-out	Caloola	Drake	Hillgrove	Murrumbateman	Stockinbingal	Windeyer
Binda	Canadian Lead	Dungog	Hillston	Muttama	Stuart Town	Wombat
Bingara	Canowindra	Dungowan	Holt's Flat	Nadgingomar	Sunny Corner	Woods Reef
Blackheath	Capertee	Eden	Home Rule	Narooma	Swamp Oak	Woodstock
Black Range	Captain's Flat	Elsmore	Ilford	Nana Creek	Tamworth	Woolgoolga
Blayney	Carcoar	Emmaville	Inverell	Narromine	Tarago	Wyalong
Bobadah	Cargo	Essington	Jambaicumbene	Narrandera	Tarana	Wyndham
Bombala	Casino	Euabalong	Jindabyne	Nelligen	Tarcutta	Yass
Bookham	Clear Creek	Forbes	Junction Point	Nerriga	Temora	Yalgogrin
Boonoo-Boonoo	Cobar	Forest Reef	Junee	Nerrigundah	Tenterfield	Young
Boro	Cobargo	Flyer's Creek	Kempsey	Newbridge	Termial	Yowaka
Bowling-alley Point	Cobbora	Galley Swamp	Kerr's Creek	Niangala	Tia	

RETURN

RETURN showing successful results from the Prospecting Vote during 1897.

1. *E. D. Considine and Party, one-mile north-west of Sunny Corner*, received aid to sink from the level of an old tunnel put in some years ago by the late Captain Johnson. At about 100 feet a reef averaging from 18 to 24 inches was struck. The last two crushings therefrom, 400 tons, yielded 265 oz., or at the rate of about 14 dwt. per ton. As the stone is easily got and can be treated cheaply, the party are well satisfied with their prospects.

2. *The Caledonian Gold-mining Company, Williamstown Flat, near Adelong*.—Early in 1896 this Company, consisting of a party of working miners, took up this land upon which a shaft had been sunk to 218 feet and abandoned. With the object of testing the reef at a greater depth, the Board recommended that aid be granted to continue the shaft to 300 feet, and at that level the reef averages 5 inches wide and showing gold in payable quantities.

3. *W. S. McAlister and Party, of Grey Mares, Bogong, via Kiandra*.—The site of this mine is situated about 15 miles north of Kiandra, and is inaccessible during certain months of the year. In 1894 operations were begun to sink on a promising reef which had been traced on the crown of the hill, but the water was found to be so heavy that work had to be suspended. After inspection, the Board decided to assist the party to put in a tunnel from the lowest possible level, with the result that at about 350 feet the reef was struck, averaging 2 feet 6 inches wide, and showing free gold right through the stone. On driving to the south the reef improved both in width and quality, and the party are now pushing on with the erection of the necessary crushing-plant. This discovery has led to a revival of prospecting operations in the locality.

4. *Benjamin Field* received aid to test a piece of alluvial ground upon the left-hand bank of Spring Creek, in the Moonbi District. On bottoming the shaft he was then working in, prior to starting work under his grant, he struck payable gold, and immediately wrote in reporting the fact, at the same time withdrawing all claim to the aid granted. This action on the part of Mr. Field is so rare that the Board consider it worthy of special mention. The lead has been proved to be about 90 feet wide with wash averaging 3 feet thick, and yields over 7 dwt. per ton.

5. *William Ovington, of the Victory Mine, Forest Reefs*, wrote to the Board as follows:—"I am happy to inform you that the Victory shaft has bottomed on one of the best leads that has ever been found in the Western District, the wash being between 6 and 7 feet thick, and going about 15 dwt. to the ton."

From 1891 to 1895 a considerable amount of money had been expended by the Department in testing this land. The original party had to abandon the ground, but it was again taken up, and from the information gained by the work carried out under the aid, the new party soon struck the lead as stated above.

6. *John Robyns* received aid to put in a tunnel on the north-east end of New Chum Hill, Kiandra. At 525 feet the wash dirt was struck 2 feet thick, averaging from 3 to 5 dwt. per ton. A large area of good payable wash has already been proved, and blocking out is now being rigorously proceeded with. The mine is now known as the Giandarra Gold-mine.

7. *Taylor and Walsh, "The New Come up Deep Lead," 13 miles E. of Bungonia*, were aided to sink a shaft with the object of testing the deepest part of the ground. The shaft bottomed in a natural basin, and the prospects were so promising that the party have applied for a lease of the land now held by them.

8. *George Parkhill, Mount Dromedary, near Wagonga*, received aid to continue their 210-foot tunnel another 200 feet. At 410 feet the vein is about 5 inches wide, and averages about 2 oz. of gold per ton. There is every appearance that the vein will increase in width as it is followed into the hill.

9. *B. Roberts and Party* were aided to further test the Old Condobolin Copper-mine at Condobolin. At the 44-foot level stone was struck, which, on a bulk treatment by the Illawarra Company, gave a general average of 19 per cent. of copper, 4 dwt. of gold, and 3 oz. 17 dwt. of silver per ton. A syndicate has been formed to work the property.

The Board dealt with 15 applications during the year for the free treatment of ore at the Government Metallurgical Works, but in 5 cases it was found, after careful inquiry, that the applicants were in a position to pay the usual charges, and these applications were refused. The Board are willing to assist the struggling prospector in this direction, but have a duty to perform in guarding the revenue from the works from imposition.

Nine applications for the reward offered for the discovery of new mineral fields were inquired into, but in no case was the applicant able to make good his claim.

A copy of the notice is again given in full for general information:—

REWARD FOR THE DISCOVERY OF NEW MINERAL FIELDS.

NOTICE is hereby given that the sums undermentioned will be paid as rewards for discovering, on and after this date, new Reefing or Alluvial Gold or Tin Fields, or new Deposits of Silver, Copper, Diamonds, or Precious Opal.

The sum of £500 will be paid to any person or persons who shall first discover a new Reefing or Alluvial Gold or Tin Field, or a new deposit of Silver, Copper, Diamonds, or Precious Opal, provided—

- (1) That the site of the discovery be distant not less than 10 miles from the nearest mine in which similar payable mineral has been or is being obtained.
- (2) That such discovery be made known to the Minister for Mines and Agriculture within what he shall deem to be a reasonable time after such discovery.
- (3) That if it be proved to the satisfaction of the Minister that within six (6) months after he has been notified of such discovery not fewer than three hundred (300) miners have been profitably employed in mining upon such field or deposit.

In the event of the Minister being satisfied that at the expiration of twelve (12) months after he has been notified of such discovery not less than five hundred (500) miners have been profitably employed in mining upon such new field or deposit, the discoverer or discoverers shall be entitled to claim a further sum of £500.

The Minister shall be the sole judge as to any matter in dispute in regard to an application for reward.

GEOLOGICAL SURVEY.

The Government Geologist, Mr. E. F. Pittman, has, as usual, employed part of his time in field work, the remainder being devoted to the supervision of his Branch.

A considerable number of papers in reference to proposals by the Lands Department for the cancellation or reduction of gold-field reserves, with a view to subsequent alienation, have been dealt with by him.

During the earlier months of the year he was engaged in investigating and mapping the geology of the Gunnedah Coal-field. He reports that a considerable amount of work still requires to be done before a geological map of this district can be issued.

He also assisted Professor David in a geological examination of a considerable area of the Moonbi Ranges, near Tamworth. He points out that it is important that the section of country between Tamworth and Gunnedah should be carefully studied, with the object of establishing the relationship between the Devonian and Carboniferous formations which are both represented there. Mr.

Mr. Pittman was also occupied with the work of the "Royal Commission on the Spontaneous Combustion of Coal Cargoes," of which he was a member. The Commission sent in its report on the 28th April, and was subsequently reappointed for the purpose trying further experiments, and of watching the effect of the recommendations already made.

In July Mr. Pittman made an inspection of the Wentworth Mines at Lucknow, and gave evidence in the District Court in a case of alleged ore-stealing.

During the early part of the month of September he accompanied Mr. Boulton, Superintendent of Public Watering-places, to Grenfell and Finley, near Berrigan. At the former place a number of springs were inspected, with the object of ascertaining whether boring for artesian water was advisable. He reported that the springs were merely local, and that the geological formations consisted of granitic and palæozoic rocks, so that there was no probability of artesian water being found in the neighbourhood.

At Finley a site for a bore was chosen, Mr. Pittman reporting that, although the occurrence of artesian water in this district is by no means certain, a trial bore is warranted, more particularly as the experience of the Hay Bore points to the probability of, at any rate, a sub-artesian supply being obtained.

Towards the end of the year the Government Geologist visited Western Australia, and was absent eight weeks. The object of this trip was primarily the inspection of the celebrated telluride deposits of Kalgoorlie. It was thought probable that similar deposits may occur in this Colony, but may have been overlooked by prospectors owing to their not being familiar with the rare, but extremely valuable, tellurides of gold, and to the fact that these ores may be easily mistaken for iron pyrites by the uninitiated. A voluminous report of the trip was submitted.

Very little geological surveying was performed during the year by the officers of this Branch, owing to the fact that a considerable portion of their time was occupied in reporting upon applications for aid from the Prospecting Vote; but the Public Service Board have approved of the appointment of two additional Mining Inspectors, and when these officers get fully to work the geological staff will be enabled to devote nearly the whole of their time to their more legitimate employment in the geological survey of the Colony.

The services of Mr. J. A. Watt, M.A., B.Sc., were secured for the position of third geological surveyor on the 3rd March. Mr. Watt had a very successful career at the Sydney University, and was highly recommended to the Public Service Board by Professor David. He has already given satisfactory evidence of his fitness for the position.

Mr. J. E. Carne, Geological Surveyor, was occupied for about four months in continuing the prospecting operations, which were commenced during the previous year, along the Victorian Border. The results, so far as the discovery of payable deposits, were unsuccessful.

He also made an examination and report on the site of the proposed dam at Denman, in connection with the scheme for the prevention of floods in the Hunter Valley.

Mr. Carne, in addition to dealing with a number of Prospecting Vote cases, and performing the duties of Acting Government Geologist during Mr. Pittman's absence in Western Australia, furnished the following reports:—

1. On the Geology and Mineral Resources of the south-east border of New South Wales, between Cape Howe and the head of the Murray.
2. On the "Luck of Roaring Camp" Reef, near Brown's Camp, Victorian Border.
3. On the Geology and Auriferous Deposits of the Wolumla Gold-field.
4. On the Occurrence of Tungsten Ores in New South Wales; with a Register of Localities.
5. On Chrome Iron Ore: Its Mode of Occurrence, Mining, Dressing, Uses, and Value; with a Register of New South Wales Occurrences.

Mr. Geological-Surveyor J. B. Jaquet's time has been mainly occupied with applications for aid from the Prospecting Vote, and Lands Office papers referring to proposed cancellation of gold-fields. He has also furnished the following reports:—

1. On a Supposed Diamantiferous Volcanic Pipe at Bingara.
2. On Rigby's Reef, near Major's Creek.
3. On the Bundarra Copper Lode.
4. On the Newly-discovered Deep Tin Lead, near Elsmore.
5. On a Further Examination of the Ironstone Deposit, near Seaham.
6. On the Cobaltiferous Deposit at Port Macquarie.

Mr.

Mr. Geological-Surveyor J. A. Watt was employed, in conjunction with Mr. Jaquet, in examining and reporting upon the Captain's Flat lodes. Mr. Watt, in addition to dealing with a large number of Prospecting Vote cases, supplied the following reports:—

1. On a Supposed Diamantiferous Deposit on portion 292, parish of Upper Tarlo, county of Argyle.
2. On the Iron Ore Deposits of Carlo's Gap.
3. On Winter's Reef, parish of Barratta, county of Cunninghame.
4. On the Nanima Creek and Gooda Gold-fields.

The Curator of the Museum, Mr. G. W. Card, has completed the arrangement and labelling of the rock and mineral collection, while Mr. W. S. Dun, Assistant Palæontologist, has done the same with the fossil collection. The Museum, therefore, now offers special facilities for students and mining men to acquire a good knowledge of the rocks and mineral deposits of the Colony.

LIMESTONE CAVES.

For some years past complaint has been made of the accommodation for visitors at the Jenolan Caves. Arrangements were therefore made to resume the premises forming the old accommodation house occupied by Mr. Jeremiah Wilson. The Government Architect was authorised to prepare designs for a new building. One wing of a new structure has been completed. It has an imposing and picturesque appearance. It is solidly built of limestone, and contains ample accommodation. The dining-room is capable of seating sixty guests. For the recreation of visitors a detached billiard and smoking room has been erected.

It is proposed to let the premises by tender, and it is hoped that visitors will shortly find themselves as comfortably provided for as if at home.

In other directions no trouble has been spared to add to the attractions and convenience of the Jenolan Caves.

The Public Works Department has completed on the main road leading to the caves house one of the most beautiful little bridges in the Colony, built of limestone.

Many improvements have been carried out in the caves themselves. New entrances have been constructed where access was not easy.

The Director of the Botanic Gardens has been invited to remodel the plantations and to terrace and plant the slopes surrounding the accommodation house.

Plans of the caves will be found at the end of this report.

MINING SURVEYS.

The number of mining surveys made during the year was 1,366. Of these, 936 were made by surveyors on salary and 430 by surveyors remunerated by fees paid by mining applicants.

At the beginning of the year there were 6 surveyors on salary employed by the Department. Four of these have since been transferred from the temporary to the permanent staff of the Department; 1 voluntarily retired in the month of January; and 1 has been retained on a temporary basis—the exigencies of the work up to the present necessitating his continuous employment.

At the close of the year there remained only 107 cases awaiting action by surveyors, and all of these related to applications very recently made.

The 1,366 surveys made comprised the following:—

Gold leases	...	...	...	...	...	...	882
Mineral leases	...	...	...	...	...	...	124
Mining tenements	...	...	...	...	...	...	117
Mining permits	...	...	...	...	...	...	41
Private land leases	...	...	...	...	...	...	200

Two underground surveys of the previously unsurveyed parts of the Hetton and Stockton Collieries were also made for the purpose of determining whether encroachment of coal-workings had occurred upon land adjoining the colliery properties.

CHARTING, &c.

Mining Leases on Crown Land.—The number of gold and mineral lease applications relating to Crown land dealt with in the Charting Branch during the year was 1,820.

Mining Permits.—The number of 27th and 28th section applications dealt with was 227.

Mining Leases on Private Land.—456 applications to lease land under the provisions of the Mining on Private Lands Acts were dealt with.

Mining

Mining Tenements.—305 plans of measurements under the Mining Board Regulations were examined and charted.

Mining Lease cases outstanding at close of year.—At the close of the year there remained undealt with in the Branch 49 gold and mineral lease applications, 3 applications under 28th section, and 9 applications for leases of private land.

Authorities and Agreements, M.P.L. Acts.—During the year 659 applications for authorities to enter private land for mining purposes, and 174 agreements relating to mining on alienated land were investigated and dealt with.

Reserves under 26th section, Act of 1874.—109 reserves, under 26th section of the Mining Act of 1874, were described, gazetted, and charted.

Mining District and Divisions.—In 123 cases alterations were made in the boundaries of mining districts and divisions. This was necessitated by the policy of the Public Service Board in determining that Police Magistrates should have jurisdiction as Mining Wardens over the localities in which their ordinary judicial duties were performed. The alterations involved the preparation of many elaborate descriptions and illustrative maps.

Notation of Plans.—1,346 notations of transactions relating to leases, &c., were made upon plans during the year.

Plan Drawing.—1,472 plans of mining surveys were drawn.

Heliography.—6,736 heliographs and ferrotypes of mining plans and illustrations for the Public Watering Places Branch were printed.

Plan-mounting.—4,739 plans, maps, &c. were mounted.

Maps supplied to Wardens and others.—“Charted up” copies of maps were forwarded as follows:—

To Mining Wardens	282
District Surveyors	31
Mining Surveyors	47
Others	12
Total	<u>372</u>

Forestry.—During the period that the Forest Branch was connected with the Department, illustrations of 743 forest reserves were prepared for the use of mounted police assisting foresters.

Resumptions.—7 cases relating to resumption of parts of the surface of leases required for various public purposes were dealt with.

Map Records, Private Lands—Work. 304 maps of parishes, &c., were prepared, charted up to date, and placed in use for charting leases and authorities under the Mining on Private Lands Acts.

Revisal of Proofs.—75 proofs of Lands Department maps were revised with regard to mining information before publication by the Department of Lands.

Compilations.—34 maps of prominent mining localities have been compiled on tracing linen and retained as standards, from which heliographic copies are taken when required—the maps being brought up to date at the time of each printing.

A complete series of plans of the Wagga Experiment Farm was prepared in the branch for the Department of Agriculture.

A comprehensive plan of the underground workings of the collieries under the Delta at Newcastle is now in course of preparation. This work was undertaken under Ministerial authority for the purpose of assisting and facilitating the work of the Chief Inspector of Collieries.

Miscellaneous.—In addition to lease applications, surveyor's reports, and numerous other unregistered documents, 6,204 papers were received and dealt with during 1897.

Personal.—During the year the branch was weakened by the prolonged absence on sick leave of Mr. E. J. King, the Examiner of Charting, whose death on 13th December last closed a career of over thirty years duration, during which he had won the esteem of his fellow officers and given faithful service to the State.

The only other changes affecting officers were the transfer of Mr. Quinn to the position of Librarian, and of Mr. Dimelow to the Department of Lands when the forestry work was taken over by that department.

Owing to the diligence of the staff the work of the branch at the present time is as closely up to date as the conditions will allow. There are no arrears, and the whole of the records and machinery of the branch are rapidly approaching a state of complete efficiency.

COMPILATION OF MAPS, &c.

Sheets 4 and 7 Mining Districts of New South Wales, left in hand at the end of 1896, were completed and published.

The following compilations were revised, and forwarded to the Lands Department to be published as new editions:—

Parish.	County.	Parish.	County.
Alma	Yancowinna.	Nadbuck	Yancowinna.
Byjerkerno	Farnell.	Tara	do.
Coolamigal	Roxburgh.	Wyalong	Gipps.
Kirk	Yungnulgra.		

THE MINING SCHOOL.

The Mining School at the University of Sydney has been open to the public since 1892, and at present it numbers nineteen students, all of whom are working for their degrees in mining engineering. All the students who have already passed through the school have found suitable employment on mines. Of these, seven have taken the Degree of Bachelor of Engineering, in mining, and are in receipt of salaries averaging over £300 a year. One of these, Mr. E. S. Simpson, B.E., holds the position of Assayer and Analyst and Mineralogist to the Geological Survey of West Australia; Mr. A. R. Weigall, B.E., has lately been appointed Manager of a Mine at the Celebes, at a salary of £1,000 a year; Mr. E. W. Nardin, B.E., has been offered a salary of £750; and another student a salary of £1,000 a year for somewhat similar positions. Amongst others, who have been through a portion only of the course of instruction at the school, Mr. J. A. Watt, M.A., B.Sc., has been appointed Geological Surveyor to the Government of New South Wales; and Mr. T. Blatchford, B.A., is Assistant Geologist on the Geological Survey of West Australia; while Mr. H. B. Gritton has recently been appointed Assistant Assayer to the Royal Mint in Sydney.

Commenting on the proposal to establish Schools of Mines in Queensland, the Royal Mining Commission in their report says:—"After consideration of this evidence your Commissioners do not feel inclined to recommend the establishment of a general system of Schools of Mines, at the same time they think that some incentive should be given to youths wishing to obtain a thoroughly sound education in the science and practice of mining. For this purpose they suggest that half a dozen scholarships be granted to allow students to attend the Sydney School of Mines."

The fact should be emphasised that the University of Sydney Mining School is open to the public without any restriction, and it is not necessary for a student desirous of going through a part only of the mining engineering course to pass any kind of entrance examination, or to matriculate. Several students have, for example, studied assaying and chemistry only, at the Mining School, and to those who have passed their examinations satisfactorily the University has granted certificates of proficiency in those subjects.

In order, however, to qualify themselves for the full degree of Bachelor of Engineering in Mining, the University requires students to pass an entrance examination and to attend all the prescribed courses of instruction (except in the case of students who can adduce proof of having already passed elsewhere an equivalent or partly equivalent examination, as, for example, students from the Technical College, who have passed in mineralogy, geology, &c. Such students may be excused attendance at such portions of the courses of instruction at the University, as those in which they have already passed elsewhere). Although it is possible for students to obtain certificates of having passed in special subjects at the Mining School, there can be no doubt whatever that it is a decided advantage for them to complete the whole course of study necessary for obtaining the Bachelor of Engineering degree.

Students in the Mining School have the use of the finely equipped laboratories, belonging respectively to the Chemistry, Engineering, Physics, and Geological Departments, and attend the lectures given by the following:—Professor Liversidge, F.R.S., M.A., LL.D., Professor of Chemistry; Professor Warren, Wh.Sc., M. Inst. C.E., Engineering; Mr. E. F. Pitmann, Assoc. R.S.M., Government Geologist, New South Wales, Mining; G. H. Knibbs, L.S., F.R.A.S., Underground Surveying, &c.; Professor Gurney, M.A., Mathematics; Professor Threlfall, M.A., Physics; Professor David, B.A., Geology and Mineralogy.

Mr. James Taylor, B.Sc., Wh.Sc., A.R.S.M., the Government Metallurgist, New South Wales, has lately been appointed, with the approval of the Hon. the Minister for Mines and Agriculture, Lecturer in Metallurgy. Students have also the advantage of being assisted by a staff of well qualified demonstrators.

Arrangements are almost complete for giving students practical experience in the separation and concentration of ores and the separation of metals by amalgamation and other processes, the necessary plant having been provided at the Mining School, but the building for it not yet having been erected.

The Government Experimental Metallurgical Works at Clyde, as well as at the electric furnace at the University, are also available for giving the students practical experience in metallurgy.

During part of the vacation the Lecturer in Metallurgy arranges to take students for excursions to works in the Colony where metallurgical operations are being carried on. Any

Any one desirous of joining the Mining School, can obtain full particulars on application to the Registrar of the University, Glebe, Sydney. A Summary, however, may be given here of the present curriculum of studies at the Mining School, together with list of fees and nature of entrance examinations for those who wish to obtain the full degree of B.E. in mining.

Students wishing to qualify for the mining engineering degree can enter the school if they have passed: (1) The Entrance Science Examination; (2) The Senior Public Examination; or (3) If they have attended the lectures in the First Year Arts Course and passed the First Year Examination in Arts; or (4) If they produce evidence of having graduated in Arts or in Science.

As regards (1) See calendar of University of Sydney, for 1897, pp. 56-58, and appendix, pp. ccvii-cciv. The subjects are Latin, one of the three languages Greek, French, or German; and Arithmetic, Algebra, Geometry, and Trigonometry, that is two languages and four mathematical subjects. It is provided, however, (v. calendar, 1897, p. 32) that "Students of the Technical Branch of the Department of Public Instruction, whose certificates of attendance and examination in that branch are accepted by the Senate as an equivalent to a portion of the curriculum prescribed for candidates for the degree of Bachelor of Mining Engineering, shall be considered to have passed the Entrance Examination, if they satisfy the Examiners in the following subjects, viz.:—In two of the four languages—Latin, Greek, French, German; and in four of the following subject, viz.:—Arithmetic, Algebra, Geometry, Trigonometry, Elementary Surveying, and Astronomy, Mechanics, applied Mechanics." The Technical College Students can therefore, under the above conditions, study as subjects for examination two modern languages, such as French or German instead of either or both the classical languages Latin and Greek, as well as any four of the other subjects, as regards (2) the languages in any two of which the Students must pass are similar to those specified under (1) and in the mathematical subjects Students may take any four of the following:—Arithmetic, Algebra, Geometry, Trigonometry, Elementary Surveying, and Astronomy, Mechanics, applied Mechanics. (For further particulars see manual of Public Examinations for 1898, published by Angus and Robertson, Price, 1s. 6d.)

Any students who are not graduates (the latter being entitled to enter the school without any preliminary examination) are strongly advised to enter the Mining School by passing either the Entrance Science Examination or the Senior Public Examination in the prescribed subjects.

The Entrance Science Examination is held at the University, commencing this year on March 7th, and the Senior Public Examination is also held at the University, as well as at numerous local centres in New South Wales and Queensland, and commences on November 14th.

The fee for the Entrance Science Examination is £2, and that for the Senior Public Examination £1 10s.

By passing either of the above examinations in the prescribed subjects, students should be able to obtain their B.E. degrees in three years, instead of in four years, as if they simply matriculate they are required to attend the lectures and pass the examinations in the First Year Arts Course before they can be admitted to the Mining School.

The courses of instruction given to Mining Engineering students during the first, second, and third years, are specified on page 33 of the 1898 calendar.

The first year is devoted chiefly to Science, Mathematics, and Drawing; the second year chiefly to Civil Engineering and Surveying, Chemistry, Geology and Mineralogy, and Mechanical Drawing; and the third year to Metallurgy and Assaying, Mining, Civil Engineering, Materials and Structures.

The fees amount to about £40 for the first year, £35 for the second year, and about £47 for the third year. The fee for the B.E. degree, as for all the professional degrees, is £10; that is, altogether, £132. This, with sundries, including travelling expenses when visiting mines, may amount to £155.*

The aim throughout has been to make the curriculum thoroughly sound as regards both theory and practice.

The School has been liberally subsidised by the Government from the Department of Mines Vote for School of Mines and Assay Works, and the fact may be repeated here that any member of the community may attend any of the classes at the Mining School, on payment of the prescribed fee to the Registrar, and may be admitted to examination in any particular subject, and if successful may be granted a certificate of proficiency in that subject.

The various laboratories in connection with the Mining School are open to the public for inspection all the year round between the hours of 9 a.m. and 5 p.m., except for about a fortnight during January.

If the Senate of the University and the Department of Mines continue to support this school, the success of which has been already assured, as strenuously in the future as in the past, it will hold its own with any similar teaching institution in any part of the world. The public are already awakening to its usefulness,

* Details of fees are appended.

usefulness, and the well-trained young mining engineers who graduate from time to time, and obtain suitable appointments on important Australian mines cannot fail little by little to help to raise the whole standard of mining throughout Australia, and will thereby contribute not only to increasing the output of the minerals, but also establishing the mining industry on a surer and more stable basis.

APPENDIX showing Details of Fees at Mining School, University of Sydney.

1st year.	£ s. d.	2nd year.	£ s. d.	3rd year.	£ s. d.
Mathematics.....	6 6 0	Chemistry.....	15 0 0	Chemistry.....	29 0 0
Chemistry.....	16 11 0	Geology.....	6 6 0	Surveying.....	2 2 0
Physics.....	9 9 0	Mineralogy.....	2 2 0	Civil Engineering.....	2 2 0
Physiography.....	2 2 0	Applied Mechanics...	4 4 0	Applied Mechanics...	4 4 0
Applied Mechanics...	4 4 0	Civil Engineering...	2 2 0	Mining.....	4 4 0
Geometrical Drawing	1 11 6	Surveying.....	4 4 0	Metallurgy.....	4 4 0
Sundries.....	5 0 0	Sundries.....	5 0 0	Sundries, Excursion, &c.	13 0 0
	<u>45 3 6</u>		<u>39 18 0</u>	B.E. Degree fee.....	<u>10 0 0</u>
		Total (say) £155.			69 16 0

THE GOVERNMENT METALLURGICAL WORKS, CLYDE.

DURING the year, the metallurgical works—under the charge of Mr. James Taylor, B.Sc., Wh.Sc., A.R.S.M.—have been extended by the installation of both chlorination and cyanide plants.

The chlorination plant consists of a 30 feet by 10 feet three-hearth reverberatory furnace, with capacious dust-chamber, the roof of which, being constructed of iron plates, forms a drying-floor for ores and concentrates. The Plattner process of chlorination has been adopted as being best suited for experimental work. There are two leaching vats, each 7 ft. in diameter and 2 ft. 6 in. deep, each taking up to 3 tons of roasted material at a time. Two similar vats serve as precipitating vats, and these are followed by a sawdust filter-box, and two vats charged with scrap iron for the precipitation of copper. The chlorine used is produced in a lead generator from sulphuric acid, salt, and manganese dioxide.

The cyanide plant consists of a smaller leaching vat, 7 ft. diameter and 2 ft. 6 in. deep, taking about 3 tons of ore, and a larger one, 8 ft. 6 in. diameter and 3 ft. 6 in. deep, taking about 6 tons of ore. There are the necessary tanks for strong cyanide solution, stock cyanide, and alkaline wash solutions; also a couple of sump tanks built in cement, with a steam pump for returning the weak solutions either to wash the ore or to the cyanide storage tank as may be desired. There are also two sets of zinc boxes, for weak and strong cyanide solutions respectively.

The crushing and amalgamating plant has been kept tolerably well employed, and has worked satisfactorily. To this part there has been added, during the year, a Johns' Disintegrator for pulverizing samples, and one Roberts' Washer for alluvium.

The number of parcels of ore, &c., received for treatment during the year is sixty-three, weighing 210 tons. They include one tin, one chromium, and one auriferous copper ore; two each of alluvial wash, tailings, and concentrates; and the remainder are gold ores. The gold ores varied in richness from traces of gold to the rich yield of 48 oz. from 64½ lb. of stone. The ores have come from all parts of the Colony; and in several cases, two or more parcels have been sent by the same party.

As originally fixed, 10 tons was the maximum limit per parcel of ore, but for convenience of transport by rail in complete truck loads this limit has been extended to 12 tons.

One machine has been sent to the works for experimental trial, namely, a centrifugal amalgamator. Several trial runs were made with it under the direct supervision of the inventors, when it was removed to treat tailings owned by the inventors, before any decisive results had been obtained.

Numerous inquiries are made, and visits paid to the works by persons desirous of information as to the treatment of ores of all kinds, and every effort is made to help such cases.

Owing to the decision of the Public Service Board, all metallurgical specifications submitted in application for Letters Patent, are now referred to Mr. Taylor for investigation and report. Forty-nine such cases were dealt with during the latter half of the year. This entails a considerable amount of search work at the Patent Office.

The following is a copy of the report such as is usually furnished to the owner of a parcel of ore which has been treated at the Metallurgical Works. This is published so that miners and others may know the nature of the information they can obtain from these works:—

Sir,

I have the honor to inform you that the parcel of ore forwarded by you, and stated to come from the X.Y.Z. Co.'s claim at Omega, has been sampled, amalgamated, and concentrated, with the following result:—
The ore is white quartz with very little mineral.

Net weight of parcel	t.	c.	q.	lb.	tons.
	10	3	1	6	= 10·1652.
This was coarse crushed to about ¾-inch cubes, automatically sampled and assayed, giving:—					
	oz.	dwt.	gr.	oz.	
Gold.....	0	8	6	=	·412 per ton.
Silver.....	0	2	9	=	·119 „

The

The ore was next wet-crushed to pass a 30-mesh screen with holes .026 inches across, and passed over electroplated amalgamated copper plates, provided with mercury riffles and trap. The amalgam from the plates yielded—

Smelted gold	oz. dwt. gr.	oz.
	2 19 3	= 2·956

This was sent to the Bank of N.S.W., from whence the following returns were made:—

Weight, before melting	2·98	} Fineness: gold .8530; silver .127.
,, after ' '	2·98	
Standard gold	oz. 2·773	£ s. d. value gold 10 15 11
Fine silver allowed.....	·31	,, silver 0 0 5
		£10 16 4
Bank charge		0 5 0
Cheque for proceeds		10 15 4

On receipt of your receipt this cheque will be forwarded to you.

The riffle concentrates yielded a further small button of gold weighing .054 oz., and estimated to contain .046 oz. of fine gold.

From the plates the pulp was passed over two Frue vanners, Nos. 1 and 2, approximately half going over each machine. No. 1 has an ordinary smooth rubber-belt, whilst No. 2 has a Dick's felted belt.

The concentrates from No. 1 vanner weighed .0549 tons, equal to .54 per cent. of total ore, and assayed—

	oz. dwt. gr.	
Gold	3 9 16	= 3·483 oz. per ton.
Silver	0 11 8	= .567 ,,

The concentrates from No. 2 vanner weighed .3211 tons, equal to 3·16 per cent. of total ore, and assayed—

	oz. dwt. gr.	
Gold	0 14 4	= .708 oz. per ton.
Silver	0 3 17	= .185 ,,

These concentrates contain the pyrites carried by the ore, along with more or less quartz sand. By carefully panning off a portion of the sample there was obtained 0·77 per cent. of pyrites, showing that the pyrites may be reckoned not to exceed 1·0 per cent. of the ore.

The smooth belt vanner No. 1 produces a valuable material which could be treated by chlorination, or could be sold for smelting. No. 2 vanner saves more gold, but the concentrates would not bear transport, though they might be treated on the mine if produced in sufficient quantity to keep a small chlorination plant going.

The tailings from the vanners are run into a series of pits. No. 1 retains the coarse or sandy portion; this weighed approximately 9·5142 tons, and assayed—

	oz. dwt. gr.	
Gold	0 2 14	= .129 oz. per ton.
Silver	0 1 7	= .065 ,,

The overflow from No. 1 pit runs into No. 2, which is specially arranged to facilitate the deposition of slimes. This pit contained slimes estimated to weigh 0·2 tons, assaying—

	oz. dwt. gr.	
Gold	0 3 6	= .162 oz. per ton.
Silver	0 1 23	= .098 ,,

Pit No. 3, also designed to settle slimes, collected what was estimated to weigh .075 tons, and assaying—

	oz. dwt. gr.	
Gold	0 3 14	= .179 oz. per ton.
Silver	0 1 23	= .098 ,,

Calculating the total amount of fine gold in each portion, we get the following tabular statement of the distribution of the gold before and after treatment:—

	Total.	Percentages.	Per ton of ore.	
	oz.		oz.	oz. dt. gr.
Gold in the ore	4·1880	100·00	·4120	0 8 6
,, bullion	2·5214	60·20	·2480	0 4 23
,, riffle concentrates.....	·0460	1·10	·0045	0 0 2
,, concentrates, No. 1.....	·1912	4·56	·0188	0 0 9
,, " No. 2	·2272	5·43	·0223	0 0 11
,, tailings	1·2273	29·30	·1207	0 2 10
,, slimes, No. 2.....	·0324	·77	·0033	0 0 1
,, " No. 3.....	·0134	·33	·0014	0 0 1
	4·2590	101·69	·4190	0 8 9
,, excess of assay	·0710	1·69	·0070	0 0 3
	4·1880	100·00	·4120	0 8 6

The last line, "Gold in excess of assay," is due to unavoidable inaccuracy in working. The finer slimes are richest. This would appear to indicate that some gold must be carried away by the water, but the amount can only be small or a deficiency would appear in the table rather than an excess.

Mr. John C. H. Mingaye, F.C.S., Analyst and Assayer to the Department, reports as follows:—

Geological Survey Branch.

During the year 1897, 5,131 numbered samples were received for assay and analysis; 95 quantitative and qualitative analysis made, and various reports given of examinations of waters, fire-clays, &c., &c. The total number of assays, excluding those made for gold and silver, are 939, which, if the gold and silver assays are included, totals 6,182 assays.

The

The following figures show the work received in the laboratory since the year 1883—

Year.	Samples.	Year.	Samples.
1883	242	1890	3,323
1884	664	1891	4,082
1885	1,428	1892	3,570
1886	1,807	1893	3,015
1887	2,222	1894	3,816
1888	5,245	1895	4,826
1889	3,287	1896	6,013
	1897.....		5,131 samples.

The following assays have been made for various metals.—

Antimony	23	Mercury	8
Arsenic	6	Nickel	8
Bismuth	23	Iron	45
Chrome	18	Platinum	8
Cobalt	25	Tin	57
Copper	530	Tellurium	12
Lead	74	Tungstic Acid	4
Manganese	26	Zinc	10

* Gold and Silver, 5,243 assays.

The following analyses were made of water:—

- (1.) Kelly's Camp Artesian Bore.
- (2.) Warroo Springs "
- (3.) Kerribri Creek "
- (4.) Youngerringa "
- (5.) Barringun "
- (6.) Native Dog "
- (7.) Sibraas "
- (8.) Enngonia "
- (9.) Well-water from the Young Co-operative Roller Flour Mill Company (Limited).
- (11.) " " " " " "
- (12.) (No 1355). " District unknown " " "
- (13.) Water from Bacon's Well, Gunnedah.
- (14.) " the Gutter Tank at Bobadah.
- (15.) (No. 1791) Bottle of foul-smelling matter, believed to contain petroleum oil.
- (16.) Water from Dolgelly Artesian Bore.
- (17.) " Carinda "
- (18.) Mineral water, from Mount Weing, near Kelso.
- (19.) Water from Gilandra Artesian Bore.
- (20.) " Mongulla "
- (21.) " a private tank close to Wyalong.
- (22.) " Pine Wells.
- (23.) " Bulyerol Artesian Bore.
- (24.) " Warren "
- (25.) " Palchramatta "

The following are a few of the analyses made, which I give, as they are interesting:—

(No. 4664) Telluride mineral, calaverite, from Western Australia.

<i>Chemical Composition.</i>		(1)	(2)
Tellurium	.....	56.64	
Gold	.....	41.76	} 42.56 % 42.52 %
Silver	.....	.80	
		99.20	

Weight of small picked pieces, free from gangue, 1.2660 grammes, specific gravity, 9.377.

(No 5071) Telluride mineral, from Western Australia.

<i>Chemical Composition.</i>		(1)	(2)
Mercury	.....	10.86	
Gold	.....	20.72	
Silver	.....	30.98	
Copper	.....	0.5	
Tellurium	.....	37.26	} [by difference].
Sulphur	.....	.13	
		100.00	

Specific gravity, 8.791.

(No 1523) Barium-Strontium mineral. District not known.

<i>Chemical Composition.</i>		(1)	(2)
Moisture and combined water	.....	1.50	
Silica	.....	61.39	61.54
Ferric Oxide	.....	.39	.35
Manganous Oxide	.....	trace	
Barium sulphate	.....	26.50	} 36.28
Strontium sulphate	.....	9.84	
Lead sulphide (galena)	.....	trace	
Magnesia	.....	0.14	
		99.76	

Specific gravity, 3.068.

(No. 2738.)

* This includes 241 assays of last years samples, the assays of which were furnished in 1897. There remains a number of other determinations which are not included in this list.

(No. 2738.) Deposit consisting largely of calcium sulphate from Broken Hill :—

<i>Chemical Composition.</i>	
Moisture and combined water	19 20
Lime (CaO)	31 50
Magnesia (MgO)	1 06
Strontia (SrO)	trace
Silica (SiO ₂)	1 25
Alumina (Al ₂ O ₃)	0 11
Ferric oxide (Fe ₂ O ₃)	0 49
Sodium chloride (NaCl)	2 05
Sulphuric acid (SO ₃)	43 46
Carbonic acid (CO ₂)	1 15
Organic matter	trace
	100 27

(No. 3443.) Small fragments of obsidian bomb from Uralla :—

<i>Chemical Composition.</i>	
Silica (SiO ₂)	64 68
Ferric oxide (Fe ₂ O ₃)	6 57
Ferrous oxide (FeO)	1 01
Manganous oxide (MnO)	0 20
Alumina (Al ₂ O ₃)	16 80
Lime (CaO)	3 88
Magnesia (MgO)	2 50
Potash (K ₂ O)	4 01
Soda (Na ₂ O)	trace
	99 65

Cobaltiferous manganese ore from Port Macquarie :—

<i>Chemical Composition.</i>		No. 3887.	No. 3888.
Moisture at 100° C.	5 38	4 98	
Combined water ...	12 24	12 21	
Silica (SiO ₂)	6 40	8 06	
Alumina (Al ₂ O ₃)	9 97	18 95	
Ferric oxide (Fe ₂ O ₃)	16 85	14 78	
Manganese binoxide (MnO ₂)	36 50	31 05	
Cobalt oxide (CoO)	7 03	7 48	
Nickel oxide (NiO)	2 39	1 36	
Chromium sesquioxide (Cr ₂ O ₃)	40	41	
Copper oxide (CuO)	12	05	
Lime (CaO)	1 20	05	
Magnesia (MgO)	83	trace	
Phosphoric acid (P ₂ O ₅)	14	06	
Carbonic acid (CO ₂)	22	absent	
	99 67	99 44	

(No. 4209.) Greenish coloured mineral from Kalgoorli, Western Australia, said to contain vanadium mica. The greenish-yellow colour in this mineral was found to be due to a very small quantity of vanadium.

(No. 4570.) Greenish-yellow mineral, occurring as an incrustation in the Tomingley Gold-mine. A very small quantity of vanadium was detected in this mineral.

(No. 3822.) Iron and copper pyrites, bismuthine, chalybite, &c., in quartz, from Mount Dromedary Mine :—

<i>Chemical Composition.</i>	
Moisture at 100° C.	32
Metallic iron (Fe)	29 70
Ferrous oxide (FeO)	11 75
Manganous oxide (MnO)	trace
Bismuth (Bi)	1 66
Copper (Cu)	2 13
Lead (Pb)	17
Lime (CaO)	50
Magnesia (MgO)	trace
Gangue (quartz) ...	10 15
Sulphur (S)	34 47
Sulphur trioxide (SO ₃)	1 16
Carbonic acid (CO ₂)	7 63
Phosphoric acid (P ₂ O ₅)	trace
	99 64

Fine gold at the rate of 2 oz. 15 dwt. 12 grains per ton.

Fine silver at the rate of 10 oz. 5 dwt. 19 grains per ton.

(No. 1151.) Average sample of ore from Captain's Flat Mine :—

<i>Chemical Composition.</i>	
Moisture at 100° C.	10
Combined water	65
Insoluble in acids (gangue)	23 70
Metallic iron (Fe)	17 75
„ zinc (Zn)	14 50
„ lead (Pb)	8 04
„ copper (Cu)	1 11
Sulphate of lead (PbSO ₄)	32
Alumina (Al ₂ O ₃)	1 38
Lime (CaO)	40
Magnesia (MgO)	65
Sulphur trioxide (SO ₃)	25
Carbonic acid (CO ₂)	2 08
Phosphoric acid (P ₂ O ₅)	57
Sulphur (S)	27 97
Oxygen and undetermined	53
	100 00

NOTE.—91.35 per cent. of the gangue consists of silica, the remainder containing alumina, lime, magnesia, and alkalis.

(No. 2227.)

(No. 2227.) Sulphide of bismuth, supposed to contain rare metals (?), from Gundagai:—

<i>Chemical Composition.</i>		
Moisture		60
Metallic bismuth		61.12
" silver		5.03
" iron		59
" copper		trace
" lead		5.25
Tellurium	strong	trace
Lime		trace
Magnesia		absent
Sulphur		9.91
Phosphoric acid .....		.54
Silica		7.90
Ferric oxide .....		.24
Alumina (Al ₂ O ₃)		2.36
Lime (CaO)		trace
Magnesia (MgO) .....		.25
Carbonic acid (CO ₂)		2.00
Oxygen by difference (O)		4.21
		100.00

Soluble in acids.

Insoluble in acids.

Phosphatic deposit occurring in Katic's Bower, left Imperial Cave:—

<i>Chemical Composition.</i>		
Moisture and combined water		33.60
Silica (SiO ₂) .....		.70
Alumina (Al ₂ O ₃)		26.83
Ferric oxide (Fe ₂ O ₃) .....		.72
Lime (CaO)		8.10
Magnesia (MgO) .....		.14
Potash (K ₂ O) .....		.09
Soda (Na ₂ O)		absent.
Phosphoric acid (P ₂ O ₅)		30.04
Carbonic acid (CO ₂) .....		.15
Chlorine (Cl)		minute trace.
		100.37

No fluorine or sulphuric acid detected.

(No. 771.) Phosphatic deposit found in the Grotto Cave, Jenolan Caves:—

<i>Chemical Composition</i>		
Water		22.50
Lime (CaO)		31.52
Alumina (Al ₂ O ₃) .....		.10
Magnesia (MgO) .....		.09
Silica (SiO ₂)		2.78
Phosphoric acid (P ₂ O ₅)		14.50
Sulphur trioxide (SO ₃)		28.67
Carbon dioxide (CO ₂) .....		.10
		100.35

Metallurgical Branch.

The total numbered samples received for the year were 518. These consisted of average samples of crushed ore, concentrates, tailings, slimes, amalgam, cyanide solutions, &c.

The following assays have been made of various metals and substances:—

Gold and silver	379	Zinc	4
Platinum	18	Antimony	2
Tin	27	Bismuth	2
Tungstic trioxide	6	Arsenic	1
Lead	6	Iron	1
Copper	12	Sulphur	1
Chromium sesquioxide	1	Lime	2
Retorting amalgam and smelting gold	59	Insoluble matter	4
Moisture	12	Testing ore for acidity, percentage ..	5
Miscellaneous assays and tests	42	" sol for cyanide consumption and gold contents ..	20

or a total of 604 assays, tests, &c.

Experiments have been conducted on small average samples, with a view of ascertaining if the ore is suitable for treatment by cyanide or chlorination.

Reports were given, at the request of the Government Metallurgist, on the action of cyanogen on metallic gold, and ammonium cyanide on gold. (*Appendices A and B*).

On two different occasions Mr. Mingaye received a subpoena to attend and give evidence in the alleged gold robbery case at Lucknow—*Regina v. Sommerville*—the case being heard at Bathurst. This necessitated his absence from the office for ten days.

Mr. R. Vale, who received the appointment of Assistant Assayer in the laboratory, after a competitive examination in both theoretical and practical work, has shown himself capable of performing his work in an efficient manner.

APPENDIX A.

EXPERIMENTS showing the action of cyanogen (CN) on gold.

A SERIES of experiments were made with a view of ascertaining the solubility of gold, or otherwise, in a solution of cyanogen, at the request of the Government Metallurgist.

The cyanogen was prepared by heating mercuric cyanide (HgCN₂) in a tube, washing the gas in distilled water, and passing it into a flask containing an accurately weighed sheet of pure gold, suspended in distilled water —

I. Weight of pure gold	26 2650 grains.
" " after contact with solution for 18 hours	26 2570 "
Gold dissolved	0.0080 "

II.

II. A fresh solution of cyanogen made, and the experiment conducted as per previous one:—

Weight of pure gold.....	26.2570 grains.
" " after contact with solution for 1.75 hours.....	26.2545 "
Gold dissolved.....	0.0025 "

III. Weight of pure gold.....	26.2545 grains.
" " after contact in solution for 45 hours.....	26.2370 "
Gold dissolved.....	0.0175 "

Gold dissolved in the three experiments 0.0280 grains.

The solution from the three trials were filtered and evaporated down to dryness in a lead dish, free from gold, the mass being scorified and cupelled. Weight of gold recovered from solution, 0.024 grains.* The bullion, on being parted with $2\frac{1}{2}$ times its weight of pure silver, did not loose weight = pure gold.

IV. In this experiment the gold was placed in a tube,  with 5 cc. of distilled water, and the gas passed in to saturation—shown by the peach-coloured flame when the gas was burnt at the extreme end of the tube. The ends were then sealed, and the gold kept in contact with the solution for nineteen hours:—

Weight of pure gold.....	17.929 grains.
" " after contact in solution for 19 hours.....	17.920 "
Gold dissolved.....	0.009 "

The solution was filtered, and evaporated down to dryness in a leaden dish, the mass being scorified and cupelled. The solution was of a light yellow colour. Weight of gold extracted from solution, 0.009 grains.

V. The experiment was repeated, with the difference that a few drops of pure hydrochloric acid were added to the distilled water in which the gold was kept for twenty hours. There was found to be no loss of weight.

VI. Experiment conducted as above for twenty hours.—No gold dissolved.

Water dissolves about $4\frac{1}{2}$ times its volume of cyanogen. A saturated solution would thus approximately contain about 0.95 per cent.

It is a well-known fact that cyanogen readily decomposes at the ordinary temperature, yielding a number of products; hence it is impossible to have, for any length of time, a solution which shall contain cyanogen only. The products of decomposition are—ammonia, oxalate and carbonate, hydrocyanic acid (HCN), azulmic acid, urea, and, possibly, other complex compounds.

For reference, I quote the opinions of various authorities on this subject:—Water dissolves cyanogen, the solution slowly decomposing excepting an acid be present (Gianelli, T., 1856, 435), with separation of brown flocks of azulmic acid (Pelouse, A., Richardson, A., 26-63) and formation of ammonia, oxalate, and carbonate (Vaquelin, A., 9, 113, 22), and also hydrocyanic acid and urea (Wöhler, p. 15, 627; Watt's Dict. Chemistry, vol. II, page 357).

Cyanogen.—“The products of decomposition of this substance have again been studied, and, in the main, the results of previous observers have been confirmed. When solution of cyanogen in acids, or dilute acetic acid, hydrochloric acid, or sulphuric acid, are allowed to remain at the ordinary temperature, no change takes place. An aqueous solution yields at the ordinary temperature or more quickly at 100 degrees—azulmic acid, oxalic acid, ammonia, carbonic anhydride, hydrocyanic acid, and urea.” (By J. Zetell Minatash, 14, 223-232, Chemical Soc. Journal.)

Water absorbs about 4.5 times its volume of cyanogen gas. The solutions, on standing, soon become dark-coloured, and then contain ammonium oxalate, ammonium carbonate, prussic acid, urea, and numerous other products. (Dict. Applied Chemistry, Thorpe, vol. 1, page 637.)

Experiments 1, 2, 3, and 4 show that by passing cyanogen gas into water containing a weighed amount of pure gold, that an appreciable amount of gold had dissolved, which was recovered from the solution, and weighed. Experiments 5 and 6 show plainly that, in the presence of dilute hydrochloric acid, when these decomposition products are not formed, that the radicle cyanogen has no so-called selective action on gold.

Mr. W. Skey, F.C.S., Government Analyst, New Zealand, has carefully studied the cyanide process, and published several papers on the subject. He (Mr. Skey) is strongly of opinion that cyanogen is unable to attack gold, and was, I believe, the first to venture an opinion on this subject. In reply to a letter to the Government Metallurgist he (Mr. Skey) states as follows:—“I should state here that I attempted to show, and I believe that I have shown, that cyanogen is absolutely unable to attack gold, and that the products of its decomposition are so slow about it that cyanogen itself is useless for the KCN process. In my experiments I keep the cyanogen intact—at least prevent its decomposition—during the experiment, by a few drops of hydrochloric acid in the aqueous solution, and use gold-leaf for the test of insolubility.”

After carefully considering the question, and experiments made, also the various opinions expressed by numerous authorities as to the ready manner in which a solution of cyanogen in water decomposes, and the nature of the products formed, Mr. Mingaye is of opinion that it is most probable that an alkaline cyanide is formed, which would account for the gold dissolved in experiments 1, 2, 3, and 4.

That cyanogen has no so-called selective action on gold, Experiments V and VI show this, and confirms Skey's experiments.

APPENDIX B.

Experiments showing the Action of Solutions of Ammonium Cyanide (NH₄ Cn) on Gold.

Exp. I.—A strong solution of Ammonium Cyanide used.	
Weight of pure gold.....	9.829 grains
" " after standing in solution for 2 hours.....	9.782 "
Gold dissolved.....	0.047 "
Exp. II.—The same solution used for Experiment.	
Weight of pure gold.....	9.782 grains
" " after standing in solution for 17 hours.....	9.550 "
Gold dissolved.....	0.232 "
Exp. III.—Weak solution of Ammonium Cyanide used.	
Weight of pure gold.....	8.055 grains
" " after standing in solution for 2 hours.....	8.014 "
Gold dissolved.....	0.041 "
Exp. IV.—Weak solution used as per Experiment III.	
Weight of pure gold.....	8.014 grains
" " after standing in solution for 17 hours.....	7.841 "
Gold dissolved.....	0.173 "
Exp. V.—Very weak solution of Ammonium Cyanide used.	
Weight of pure gold.....	9.854 grains
" " after contact in solution for 2 hours.....	9.829 "
Gold dissolved.....	0.025 "

INSPECTION

* A very small portion of this solution was lost in evaporating.

INSPECTION OF MINES OTHER THAN COAL AND SHALE MINES.

Mr. Slee, F.G.S., Chief Inspector of Mines, reports 35 fatal and 41 non-fatal accidents in connection with the metalliferous mines of New South Wales during the year.

The number of fatal accidents correspond with the number reported for 1896, but an increase of 5 non-fatal as compared with that year.

Of the 35 fatal accidents, 14 occurred in silver, 7 in auriferous quartz, 8 in auriferous alluvial, 2 in copper, 1 in tin, and 3 in limestone mines.

The percentage of fatal accidents in 1897 is 1:120, as compared with 1:148 during 1896, and non-fatal 2:465 as against 1:181 for the same period.

The number of men employed in and about the metalliferous mines of the Colony during the year was 31,229 as compared with 30,478 in 1896.

The undermentioned localities were visited and inspected during the year:—

By the Chief Inspector.

West.—Carcoar, Orange (twice), Forest Reefs, Nymagee, Overflow, Cobar, Newbridge, Parkes, Alextown, Peak Hill, Stuart Town, Macquarie River, Forbes, Condobolin, Blayney.

South.—Murrumburrah (twice), Berthong, Young, Temora, Wyalong, Yalgogrin, Cootamundra, Wagga Wagga, Grong Grong, Cooma, Cowra Creek.

North.—Uralla and Newcastle Districts, &c.—The Chief Inspector, while visiting these districts, also dealt with applications for aid from the Prospecting Vote, and during the year adjudicated at several places as Warden for the Colony.

By Inspector Milne.

West only.—Bathurst, Blayney, Byng, Brown Creek, Burruga, Black Springs, Burnt Yards, Binni Creek, Bobadah, Byrock, Burrendong, Burra Burra, Booramugga, Bunnamagoo, Capertee, Clear Creek, Cheshire Creek, Crudine, Caloola, Carcoar, Canowindra, Cowra, Cargo, Cobar, Eramby, Eurrunderee, Flyer's Creek, Forest Reefs, Galley Swamp, Gilgunnia, Girilambone, Hill End, Hobby Yards, Illford, Junction Point, Lewis Ponds, Lucknow, Mudgee, Mullion Creek, Mitchell's Creek, Molong, Mandurama, Mount Allen, Mount McDonald, Mount Hope, Mount Drysdale, Mount Boppy, Mumbil, Macquarie River, Newbridge, Nymagee, Nangeribone, Oberon, O'Connell, Perth, Palmer's Oakley, Rock Forest, Rockley, Restdown, Sofala, Sunny Corner, Stuart Town, Tuena, Trunkey, Vermon Hill, Walli, Warne, Woodstock, Wellington, and Wattle Flat.

A considerable number of the places mentioned in the above list have been inspected two or three times, and some, four times during the year.

The inspector reports that the regulations are generally complied with.

While visiting said districts Inspector Milne reported on numerous applications for aid from the Prospecting Vote.

By Inspector Hebbard.

In addition to the very frequent inspection of the mines in the immediate vicinity of Broken Hill, Inspector Hebbard also visited and inspected the mines at Pinnacles, Balaclava, Rockwall, Angas, Thackaringa, Silverton, Yabba, Purnamoota, May-bell, and Tarrawingee,

By Inspector Godfrey.

North.—Bingara, Bulladelah, Copeland, Coolongolook, Crow Mountain, Hillgrove, Ironbark (Woods Reef), Moonanbrook, Paddy's Creek, Rawdon Vale, Stewart's Brook, Upper Gloucester, and Whispering Gulley.

West.—Cobar, Carlisle, Diegon, Eugowra, Forbes, Fifield, Platina, Gilgunnia, Girilambone, Gulgong, Cudgebegong, Mount Drysdale, Mount Allen, Mount Hope, Mount Bobby, Myall, Mudgee, and its localities, Nymagee, Overflow, Peak Hill, Parkes, Pinnacles, Restdown, The Rookery, Tomingley, and Windeyer.

South.—Barmedman, Billy's Look-out, Buddigower, Grenfell (twice), Temora, Scrub Yards, Springdale, Wyalong (for two months), Yalgogrin, Adelong, Braidwood, Bungonia, Corang, Gundagai, Jerralong, Nerriga, Quartzville, and Snowball.

Inspector Godfrey's reports show that the regulations are generally complied with. He, also, while in the foregoing-mentioned districts, reported on a considerable number of applications for aid from the Prospecting Vote.

By Inspector Hooke.

Adelong, Armidale, Bago, Billapalula, Brungle, Barmedman, Bygalorie, Bringabong, Burrowa, Breakfast Creek, Coolongolook, Coolac, Combaning, Chandler River, Carabost, Cullinga, Craiglea, Demondrille, Dungog, Garangula, Gundagai, Gundaroo, Gooda Creek, Hillgrove, Harden, Humula, June Reef, Moonan Brook, Murrumburrah, McMahon's Reef, Muttama, Metz, Melrose, Nanima, Nottingham Hill,

Hill, Niangula, Nundle, Reefton, Rockvale, Rye Park, Stewart's Brook, Springdale, Stockinbingal, Sherwood, Sunnyside, Swamp Oak, Tumut, Toomoorooma, Temora, Tumbarumba, Tia, Uralla, Ungarie Wyalong, Walcha, Wee Jasper, and Yass.

Inspector Hooke reports that the Regulations are generally complied with, and while in each district he also reported on a large number of applications for aid from the Prospecting Vote.

DIAMOND DRILLS.

The total depth bored in 1897, was 2,378 ft., or 235 ft. 3 in. more than during the year 1896.

Diamonds used in 1897, cost 4s. 11¹/₆d. per ft., as compared with 2s. 1³/₆d. in 1896.

The average cost per ft. for boring during 1897, was 20s. 2³/₆d., as compared with 11s. 4¹/₆d. in 1896.

The increase in the rates per foot was owing to very hard and broken stratum, and an increase in the cost of diamonds of fully 100 per cent. per carat.

The earnings of the diamond drills for the year was £1,047 1s. 3d., and the amount paid into the Treasury, as revenue from diamond drills, was £593 12s. 0d., in addition to the sum of £491 8s. 9d. transferred from Prospecting Vote to the credit of Revenue Account—Drills, in all, £1,085 0s. 9d.

MINERAL PRODUCTS.

The aggregate value of the mineral products of this Colony to the end of 1897, is £123,053,111 19s. 9d.

The value of such products for the year was £4,685,273 14s. 1d., or an increase of £206,904 18s. 8d. on the value of the minerals won during 1896. The following table shows an increase of £104,760 and £100,369 respectively, in the value of the coal and copper won during the year, as compared with 1896.

At the close of the third quarter of the year it was expected there would be a substantial increase in the yield of gold for the year, but, owing to the extremely dry weather, and the consequent inability of the mines to crush the stone raised, may be attributed the slight falling off in the yield. The value of the output was more by £15,053 than the previous year, but there was 3,854 oz. less. The decrease in the value of the silver and silver-lead won is traceable to the decline in the value of lead during 1897, as the output was really 2,079 tons in excess of 1896. The same remarks apply to tin, but should the value increase, many of the deserted claims will be again taken up. The large increase in the value of opal won is entirely due to the energy with which the White Cliff Opal Field is being developed. It will be seen, therefore, that our mineral industry is on the increase, and the prospects of this increase being maintained during 1897 are very encouraging. Should seasonable rains visit the Fields, there is every indication that the present year will be a record one as far as all classes of mining are concerned.

The following table shows the aggregate value of minerals, the product of New South Wales, for the years 1896 and 1897 respectively compared:—

Minerals.	Quantity.	Value.		Quantity.	Value.		Increase in Value.		Decrease in Value.	
		£	s. d.		£	s. d.	£	s. d.	£	s. d.
		1896.			1897.					
Gold	296,071·95 oz.	1,073,360	4 7	292,217·00 oz.	1,088,413	0 0	15,052	15 5		
Silver*	202,789·00 ,,	26,518	0 0	150,005·00 ,,	16,711	0 0			9,807	0 0
Coal	3,909,516·63 tons	1,125,280	16 7	4,383,591·78 tons	1,230,041	1 1	104,760	4 6		
Shale	31,839·15 ,,	34,201	18 0	34,090·27 ,,	40,611	15 0	6,409	17 0		
Coke	26,351·05 ,,	21,830	16 3	64,202·00 ,,	45,391	18 0	23,541	1 9		
Tin	1,807·15 ,,	102,117	0 0	1,154·75 ,,	70,688	0 0			31,429	0 0
Copper	4,467·85 ,,	200,311	0 0	6,922·40 ,,	300,680	0 0	100,369	0 0		
Iron†	4,721·00 ,,	33,283	0 0	3,239·00 ,,	21,862	0 0			11,421	0 0
Antimony	132·75 ,,	1,834	0 0	169·10 ,,	3,612	0 0	1,778	0 0		
Bismuth	41·00 ,,	490	0 0	3·10 ,,	860	0 0	310	0 0		
Silver-lead and Ores	286,939·25 ,,	1,758,933	0 0	289,018·50 tons	1,631,528	0 0			77,405	0 0
Zinc Spelter				28,841·80 ,,	23,688	0 0	23,688	0 0		
Oxide of Iron	375·04 ,,	801	0 0	230·05 ,,	536	0 0			265	0 0
Chrome	3,851·75 ,,	11,280	0 0	3,379·55 ,,	10,269	0 0			1,011	0 0
Lead (Pig)	23·85 ,,	259	0 0	31·85 ,,	398	0 0	139	0 0		
Limestone (Flux)	88,924·00 ,,	54,261	0 0	67,590·00 ,,	41,798	0 0			12,463	0 0
Alunite	1,372·00 ,,	4,116	0 0	724·10 ,,	2,172	0 0			1,944	0 0
The Noble Opal	1,390·00 lb.	25,000	0 0	5,292·00 lb.	95,000	0 0	70,000	0 0		
Cobalt										
Fireclay	34·15 tons	69	0 0						69	0 0
Platinum	2,438·00 oz.	3,479	0 0	1,966·00 oz.	2,949	0 0			530	0 0
Sundry Minerals	68·01 tons	924	0 0		8,125	0 0	7,201	0 0		
		£ 4,478,368	15 5		£ 4,685,273	14 1	353,248	18 8	146,344	0 0
					Net increase...£		206,904	18 8		

* The greater part of the silver produced is exported in the shape of silver lead. † Not manufactured from the ore, but old iron.
‡ Includes £20,000 omitted from the 1896 output.

The following return shows the quantity and value of gold, coal, shale, copper, tin, silver, silver-lead ore, and the several other metals and minerals produced in the Colony of New South Wales during the last ten years:—

	1888.		1889.		1890.		1891.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Gold	87,503 oz.	£ 317,100	119,759 oz.	£ 434,070	127,760 oz.	£ 460,284	158,336 oz.	£ 558,306
Coal	3,203,443 tons	1,455,198	3,655,632 tons	1,633,848	3,060,876 tons	1,279,088	4,087,920 tons	1,742,796
Shale	34,869 "	73,612	40,561 "	77,666	56,010 "	104,108	40,349 "	78,160
Copper and Regulus	3,899 "	275,034	4,182 "	206,641	3,745 90 "	173,311	4,525 55 "	205,093
Tin and Tin Ore	4,809 "	582,406	4,650 "	415,171	3,608 75 "	329,841	3,144 52 "	271,412
Silver	375,064 oz.	66,668	416,895 35 oz.	72,001	496,552 20 oz.	95,410	729,590 05 oz.	134,850
Silver-lead and Ore	29,841 60 tons	1,075,737	81,545 30 tons	1,899,197	131,039 65 tons	2,667,144	147,779 70 tons	3,484,739
Iron	3,747 00 "	23,721	2,136 80 "	18,330	3,413 40 "	39,948	4,125 80 "	36,101
Antimony and Ore	190 35 "	2,918	221 40 "	3,344	1,026 00 "	20,240	914 85 "	22,057
Bismuth	18 07 tons	3,911	42 50 tons	11,349	2 10 tons	306	40 tons	500
Oxide of Iron			489 05 "	1,329	450 30 "	884	228 75 "	434
Zinc Spelter			96 85 "	983	210 45 "	2,378	218 60 "	2,622
Lead (Pig)			522 30 "	6,711	126 00 "	1,587	100 65 "	2,025
Limestone Flux					41,436 80 "	41,989	74,057 00 "	65,357
Opal					195 lb.	15,600		240
Manganese					100 tons	825	138 00 tons	470
Cobalt							1 15 "	470
Coke					31,097 tons	41,147	30,310 35 "	34,473
Alumite					220 "	3,000	704 00 "	1,883
Fireclay							16 80 "	65
Lime							410 00 "	958
Marble							635 pig	2,577
Stone (Building)							4,735 No.	5,205
(Ballast)							619 tons	713
Grindstones							471 No.	311
Slates							31,234	351
Sundry Minerals	119 tons	3,438	95 75 tons	719	973 75 tons	7,252	788 95 tons	3,217
		3,879,833		4,780,364		5,283,840		6,655,010

	1892.		1893.		1894.		1895.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Gold	156,870 oz.	£ 569,178	179,288 oz.	£ 651,286	324,787 oz.	£ 1,156,717	360,165 45 oz.	£ 1,315,929
Coal	3,780,968 tons	1,462,339	3,278,328 tons	1,171,722	3,672,076 21 tons	1,153,573	3,788,589 tons	1,095,327
Shale	74,197 "	136,079	55,660 "	101,221	21,171 "	31,781	59,426 "	75,210
Copper and Regulus	4,834 00 "	187,706	2,067 00 "	58,426	2,136 85 "	73,481	3,851 3 "	140,835
Tin and Tin Ore	3,492 00 "	314,114	2,785 00 "	229,743	2,801 60 "	187,197	2,276 15 "	138,623
Silver	350,061 00 oz.	56,884	531,972 00 oz.	78,131	846,822 00 oz.	94,130	559,142 oz.	81,858
Silver-lead and Ore	133,355 00 tons	2,420,952	214,260 00 tons	2,953,539	150,326 50 tons	2,193,339	219,880 95 tons	1,560,813
Iron	2,782 00 "	22,605	2,101 00 "	14,736	2,368 "	17,170	2,463 15 "	15,620
Antimony and Ore	728 00 "	14,680	1,774 00 "	25,092	1,250 "	18,744	478 8 "	7,251
Bismuth	14 00 tons	1,080					152 35 tons	348
Oxide of Iron	453 00 "	469	1,260 00 tons	1,526	432 90 "	670		
Zinc Spelter	445 00 "	5,055					19 80 tons	197
Lead (Pig)	71 00 "	7 26	426 00 tons	4,205	31 15 "	260	104,194 00 "	68,160
Limestone Flux	103,366 00 "	93,031	190,635 00 "	111,041	80,990 00 "	69,289	393 00 lb.	6,000
Opal	42 lb.	2,000	449 lb.	12,315	198 lb.	5,684		10
Manganese	16 00 tons	47			13 50 tons	44	3 35 tons	26
Cobalt	76 00 "	1,110	25 00 tons	305	2 50 "	10	5 50 "	36
Coke	7,899 00 "	5,852	17,858 00 "	20,233	34,458 "	33,209	27,630 40 "	24,683
Alumite	821 00 "	3,254	821 00 "	3,284	862 "	3,448	832 00 "	3,328
Fireclay	35 00 "	80	21 00 "	46	21 "	60	19 50 "	55
Lime	403 00 "	822						
Marble					8 pkg.	80		
Stone (Building)	2,478 No.	2,338	850 No.	855				
(Ballast)	224 00 tons	276	132 00 tons	166				
Grindstones			2 No.	3				
Slates								
Chrome					3,034 30 tons	12,336	4,229 45 tons	13,048
Sundry Minerals	92 25 tons	1,158	67 00 tons	557		892		4,637
		5,305,815		5,438,532		5,056,134		4,552,017

	1896.		1897.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Gold	296,071 95 oz.	£ 1,073,360	292,217 00 oz.	£ 1,088,418	2,024,756 95 oz.	£ 7,624,643
Coal	3,909,516 63 tons	1,125,281	4,383,591 78 tons	1,230,041	36,720,943 41 tons	13,350,262
Shale	31,839 15 "	34,202	31,090 27 "	40,612	427,001 42 "	752,654
Copper and Regulus	4,467 85 "	200,311	6,922 40 "	300,680	40,630 25 "	1,821,568
Tin and Tin Ore	1,807 15 "	102,117	1,554 75 "	70,688	20,685 90 "	2,641,402
Silver	202,789 oz.	26,518	150,005 00 oz.	16,711	4,650,472 75 oz.	723,151
Silver-lead and Ore	286,936 25 tons	1,758,933	289,018 50 tons	1,681,528	1,713,882 50 tons	21,697,971
Iron	4,721 "	33,283	3,239 00 "	21,862	31,216 75 "	243,426
Antimony and Ore	132 75 "	1,834	169 10 "	3,612	6,884 35 "	119,772
Platinum	2,438 oz.	3,479	1,966 00 oz.	2,949	4,404 00 oz.	6,428
Bismuth	41 tons	490	3 10 tons	800	120 65 tons	18,436
Oxide of Iron	375 2 "	801	230 05 "	536	4,070 25 "	7,397
Zinc Spelter			28,841 80 "	23,688	29,811 80 "	34,731
Lead (Pig)	23 85 tons	259	31 85 "	398	1,440 70 "	16,363
Limestone Flux	88,924 "	54,261	67,590 00 "	41,798	700,094 00 "	544,926
Opal	1,390 lb.	25,000	5,292 lb.	95,000	7,899 00 lb.	161,599
Manganese					270 00 tons	766
Cobalt					110 00 "	1,921
Coke	26,351 5 tons	21,851	64,202 tons	45,392	239,805 05 "	229,840
Alumite	1 37 "	4,116	724 10 "	2,172	57,045 10 "	24,520
Fireclay	34 15 "	69			145 15 "	365
Lime			349 tons	693	1,162 "	2,473
Marble					643 pkg.	2,657
Stone (Building)					8,063 No.	8,898
(Ballast)					975 tons	1,155
Grindstone					473 No.	814
Slates					310,234	351
Chrome	33,851 75 "	11,280	3,379 tons	10,269	44,494 30 tons	46,933
Sundry Minerals	68 1 "	924		7,432		30,226
		4,478,360		4,685,274		50,115,133

GOLD.

The value of the gold won since the opening of our gold-fields to the end of 1897 is £44,488,371 8s. 4d.

The quantity won during the year, as will be seen from the following table, is less than during 1896, but the value is greater by £15,053.

The Wyalong and Hillgrove fields are maintaining their yields, but the late strike at Lucknow had the effect of greatly reducing the yield from that district. The employment of more suitable machinery, and processes for the treatment of refractory ores, will, ultimately, have the effect of increasing our gold yield, and permit of many of the mines now abandoned being profitably worked. The large Works erected at Illawarra and Cockle Creek, for the treatment of ores, must also have a beneficial effect on our mining industry.

TABLE showing the Quantity and Value of Gold won in the Colony of New South Wales from 1851 to 1897.

Year.	Quantity in oz.	Value.	Year.	Quantity in oz.	Value.
		£ s. d.			£ s. d.
1851 ...	144,120	468,336 0 0	1876 ...	167,411	613,190 7 9
1852 ...	818,751	2,660,946 0 0	1877 ...	124,110	471,418 4 4
1853 ...	548,052	1,781,172 0 0	1878 ...	119,665	430,033 2 7
1854 ...	237,910	773,209 0 0	1879 ...	109,649	407,218 13 5
1855 ...	171,367	654,594 0 0	1880 ...	118,600	441,543 7 7
1856 ...	184,600	689,174 0 0	1881 ...	149,627	566,513 0 0
1857 ...	175,949	674,477 0 0	1882 ...	140,469	526,521 12 5
1858 ...	286,798	1,104,174 12 2	1883 ...	123,805	453,508 16 0
1859 ...	329,363	1,259,127 7 10	1884 ...	107,198	395,291 12 5
1860 ...	394,053	1,465,372 19 9	1885 ...	103,736	378,665 0 3
1861 ...	465,685	1,806,171 10 8	1886 ...	101,416	366,294 7 7
1862 ...	640,622	2,467,779 16 1	1887 ...	110,288	394,578 16 3
1863 ...	466,111	1,796,170 4 0	1888 ...	87,503	317,099 12 0
1864 ...	340,267	1,304,926 7 11	1889 ...	119,759	434,070 8 4
1865 ...	320,316	1,231,242 17 7	1890 ...	127,760	460,284 16 2
1866 ...	290,014	1,116,403 14 5	1891 ...	153,336	558,305 12 3
1867 ...	271,886	1,053,578 2 11	1892 ...	156,870	569,177 17 4
1868 ...	255,662	994,665 0 5	1893 ...	179,288	651,285 15 8
1869 ...	251,491	974,148 13 4	1894 ...	324,787	1,156,717 7 7
1870 ...	240,858	931,016 8 6	1895 ...	360,165	1,315,929 5 4
1871 ...	323,609	1,250,484 15 11	1896 ...	296,072	1,073,360 4 7
1872 ...	425,129	1,643,581 16 11	1897 ...	292,217	1,088,413 0 0
1873 ...	361,784	1,395,175 8 7			
1874 ...	270,823	1,040,328 13 6		12,009,833	44,488,371 8 4
1875 ...	230,882	877,693 18 0			

The following information is compiled from the reports supplied by the Wardens and Mining Registrars of the several mining districts and divisions. These officers experience a difficulty sometimes in procuring all the details of the work being carried on in their respective districts. It is gratifying to note that, with a better acquaintance with the districts under their charge, a more complete *resume* of the mining work may be anticipated.

THE BATHURST MINING DISTRICT.

Canowindra Division.

About 65 men are still in the Canowindra Division, and the returns therefrom are fairly satisfactory, being 406 oz., as compared with 358 oz. the previous year. The Blue-jacket Gold-mine, at Belmore, employ 34 men, who have been engaged principally in development work during the greater part of the year—the depth of the main shaft now being 430 feet. This accounts for the small quantity of stone raised and treated, which was only 265 tons for 222 oz. The party working the Old London Reef, at Barcy's Rock, raised 57 tons for 81 oz. Several parties are testing the private lands under their authorities to enter. On the whole, the prospects of this division are considered satisfactory.

Cowra Division.

The mining industry in the Cowra Division has not been so active as in former years. About 40 men have been constantly employed in the vicinity of Woodstock working alluvial ground principally, but the total yield from this source could not be ascertained.

Mount McDonald Division.

The Mount McDonald Field is one on which real solid improvement has taken place during the year. The mines have received the benefit of capital and energy, with the result that the field is in a fair way to become one of considerable importance. The yield of gold has risen from 421 oz. in 1895, 586 oz. in 1896, to 1,771 oz. in 1897, with every prospect of a still further substantial increase.

At the commencement of the year the Olliver's Freehold Gold-mining Company of Hongkong were engaged sinking a main shaft on the Eureka portion of their property, for the purpose of striking the reef at a greater depth than any previously reached on this line of reef. When the shaft had reached a depth of 206 feet it was decided to drive for the reef at 150 and 200 feet from surface. At the 150-foot level the reef averaged 2½ feet in width of payable stone. At the 200-foot level the reef had widened out to 5 feet, and of good quality. During the last few months the shaft has been sunk an additional 105 feet, the reef varying from 5 to 7 feet.

It is the intention of the Company's manager to resume sinking as soon as possible, intending to sink at least 100 feet every year. A new main shaft has been started on the northern portion of the property, also a prospecting shaft on the south end, in which payable gold has been found.

Finding the old battery which has been in use for many years insufficient for present requirements, it has been discarded, and a new 20-head of heavy stampers has been erected, with four Watson and Denny pans, capable of treating 200 tons per week. In addition to this, the Company are erecting another 20-head battery on the property, and expect shortly to have 40 head of stampers in constant work. One great drawback to mining operations here has been the scarcity of water owing to the very limited rainfall during the year, and, in order to prevent this drawback in future, the Company have constructed a large new dam, and are also enlarging and cleaning out the old one.

The

The New Balmoral Gold-mining Company have during the year done a considerable amount of work on various portions of their property, with more or less success. At present they are sinking a main shaft on a portion of their property known as the "Queen Mine." The shaft is down about 350 feet, at which depth it is intended to drive to intersect the various reefs and veins worked by tunnelling near the surface, and which are all dipping towards the shaft.

The Great Eastern and Caledonian Gold-mining Company of Hongkong, formed for the purpose of working properties lying south of the Olliver's Freehold Mines on the Eureka line of reef, commenced active operations about three months ago, and are engaged in sinking two main shafts—one on the Great Eastern and one on the Caledonian property—their intention being to sink to a depth of 200 feet and open out to cut the reef worked previously down to the water-level with considerable profit. In addition to these, they are sinking two underlay shafts, in which they have some good ore. These operations, which at present are purely progressive, are being carried on with considerable energy and skill, and success is confidently anticipated.

Several co-operative parties have been working with only partial success.

The Woodstock Gold-mining Company (Scrubby Rush) and the Lord Hampden Gold-mining Company (Mount McDonald), after a somewhat chequered career, shut down.

In addition to lode-mining, a number of Europeans and Chinese were engaged during a part of the year fossicking on the Abercrombie and Lachlan Rivers, with varying success.

Altogether the outlook for the coming year, if favoured with a good rainfall, may be regarded as brighter than it has been for many years past.

Carcoar Division.

With the exception of a little fossicking, there has been no actual gold-mining done in this Division during the past year; but very extensive preparations are being made to mine on a large scale at no distant date, and as soon as suitable machinery can be erected. The Gallymont Gold Fields (Limited) are at present developing their property, and they have discovered no less than four distinct lines of gold-bearing reefs. These lines are being opened up on a thorough system by Mr. Eissler, the Company's consulting engineer.

The erection of a very large and complete plant is being proceeded with, and tramway construction is at present going on. This Company employs over 150 men, and when the batteries are completed the manager is confident of being in a position to crush 3,000 tons a month steadily, which will give employment to 300 men.

The other mines in the district have done nothing worthy of note during the year. The banks purchased 1,224 oz. 14 dwt. 9 grs. of gold during the year, valued at £4,592 9s. 1d.; but it is questionable if all this gold was won within this division. There are 26 men throughout the district, principally fossicking for alluvial, with varying success.

Blayne Division.

Gold-mining in this division is practically a thing of the past, the two principal mines, namely, the Brown's Creek Gold-mining Company and the Last Chance Company at King's Plains, having shut down. A number of fossickers, however, manage to make a living in the locality, and won among them about 164 oz. Attention is being given to the copper deposits of the locality, several of which are very promising. There is a probability that the old Annandale Coppermine will be again in full work, a trial smelting being found satisfactory to the present owners.

Newbridge Division.

The quantity of gold won in this division during the past year exceeds the return of 1896 by 303 oz., the increase being principally from quartz-mining. During 1896 there was a difficulty with parties who had quartz claims not being able to have their quartz crushed, there being no battery in this division. However, early in 1897, a 12-head battery was erected on Warren's property, at which the miners have been able to get a return from their quartz.

Another battery is now in course of erection on Mr. Collins' property at Sugar Loaf. This mine appear to be one of the best in this division, although no returns have been obtained from it so far. The owners have about 2,000 tons of quartz at grass, from which they expect a return of an ounce to the ton; the reef at the 100-foot level in this mine being 20 feet wide, and, it is said, gold can be seen plainly in the stone.

One party in this division received aid from the Prospecting Vote during the year to sink 100 feet from the 69½-foot level at the "Hard Shaft"; the distance has not been completed yet. The party is sinking on the reef, which is about 2 feet wide, and carries a trace of gold; the sinking is very hard.

There is very little doing in the alluvial mines. It cannot be ascertained what quantity of loads were washed, as most of them are fossicking in the creeks, and cannot give any return of how many loads they treat. All the alluvial gold obtained here is sold to the local storekeepers, so there is a difficulty in obtaining the exact quantity of alluvial gold won. There is very little mining being done on private land.

Trunkey Division.

The Trunkey Gold-field produced 124 oz. of quartz and 1,762 oz. of alluvial gold during the year, valued at £6,607, as against 1,447 oz. in 1896, and 2,340 oz. in 1895. The reason the amount of quartz gold is so small is owing to the fact that the Alma battery, which used to crush for the public at a small rate, was removed to the Crudine early in the year. This caused the small leaseholders and claimholders to abandon their work. The unusually low state of the Abercrombie River from the drought permitted, however, a number of the men to fossick in its bed, and some very good returns were obtained.

Messrs. Crees and Francis, on Wright's Reef, raised and treated 100 tons for 100 oz. Work is still being carried on at the Mount Gray Mine by Mr. Clarth, but no information is available as to results. The Bathurst Gold-mines (Limited), from which so much was expected, is unfortunately defunct. After the erection of their splendid battery they were compelled to liquidate. The battery has since been sold to a Bathurst syndicate and removed. Near Bombah, on the Abercrombie, Messrs Yates and Party have taken up an area of land for sluicing purposes, and have already cut a large head race from the river. The miners in this division do not take advantage of the Mining on Private Lands Act to any great extent, and the gold won from freehold lands may be put down under 50 oz.

Tuena Division.

The Tuena Division shows a slight decrease in the gold yield—the figures being 1,818 oz., as compared with 1,961 during 1896, the bulk of it being won from alluvium. Had there been anything like a fair average rainfall the output would have been greatly increased, as sluicing operations were all but brought to a standstill. The alluvial gold won was principally from the creek and river claims, and a number of these claimholders are stacking their washdirt till rain falls.

Tennent and Party at the Golden Dyke have raised about 200 tons, which they purpose sending to the Junction Point battery for treatment. From previous crushings they expect it to average about 7 or 8 dwt. per ton. This return is considered good enough if there was a battery at hand. The syndicate working on Victoria Flat are trying about 10 tons from their reef by the cyanide process, and expect it to yield about £4 worth of gold per ton. As soon as water is available they start on a larger quantity of stone taken from the 60-foot level, where the load averages from 3 to 4 feet wide. About Junction Point several parties are working the old reefs and making fair wages. A good deal of prospecting is going on in this locality, and one or two good surface shows have been discovered which will be further developed. Ray and Party, working the "Union Jack" at Markdale, have a promising reef, from which a crushing of 5 tons yielded 1 oz. per ton. About 80 tons of similar stone is at grass, which will be sent to the Junction Point battery as soon as teams can travel. At the present there is no water on the road. Several reefs have been opened up around Markdale, which give very good assays, but the refractory nature of the stone prevents it being treated locally. Some nice coarse gold was obtained in the bed of the Mulgowrie Creek, and one or two parties did fairly well; as usual, the great drawback to constant or efficient work being the scarcity of water.

Rockley Division.

The returns from Oberon are the highest for years past, viz., 1,098 oz. from alluvium, and 634 oz. from quartz, or a total of 1,732 oz. After a long delay the Mount David Gold-mining Company started crushing in October with a 10-head battery, and to the end of the year had put through 511 tons for 203 oz. valued at £882. The Company will soon have a 20-head battery at work, when better results are expected. It is said that £30,000 have already been expended on the property. Fully 70 men are now employed in and about the mine. At Rutherford's battery on Gilmadyke, some 7 miles from Rockley, about 300 tons of quartz were crushed for 80 oz. of gold. At Caloola Creek Messrs. Garbutt and Party with their new mill put through about 1,400 tons of lode stuff for 150 oz. of gold, valued at £560. Several other parties

parties are ready to start work in this locality, but are delayed owing to the scarcity of water. The drought had also a serious effect on the working of the alluvial claims, the men being unable to treat their washdirt when raised. A nugget 4 oz 16 dwt 21 grs. was found by a prospector at Davy's Creek, about 10 miles from Rockley, on Church and School Lands. The men, as a rule, in this locality can generally win sufficient gold to keep them in rations.

Burrage Division.

The mines in Burrage Division have been worked in a spasmodic manner during the year, but, notwithstanding, the yield has increased to 408 oz., as compared with 328 oz. during 1896. The Burrage Gold mining Company has done very little work during the past twelve months, and their 10 head battery has been idle during that time. The Company have a very large lode of pyritous quartz that is estimated to yield $\frac{1}{2}$ an oz. free gold per ton, but the want of the necessary capital to develop the property seems to be the drawback. On the Isabella River M'Vicar, Phillips, and Party have been constantly at work, and have erected a 3 head battery, with which they have crushed about 86 tons for a yield of 96 oz. of gold. Water has become so heavy in the underlay shaft as to compel them to commence the sinking of a main shaft, which is now down about 90 feet. This party have struggled against many difficulties during the past three years, but expect to reap their reward when the reef is struck in the main shaft. The majority of the leases adjoining have been abandoned after doing a little prospecting work on them. Woodburn and Sons, about $1\frac{1}{2}$ miles north of M'Vicar and Party, have struck a reef about 30 feet from the surface, which is 2 feet wide, and gives very fair prospects of gold.

At Little River very little work is being done. Hill and Hunt have abandoned their tunnel after putting it in some 500 feet without striking the wash. This party were in receipt of aid from the Prospecting Vote. At Jacob's Valley Watson and Party put a tunnel in 160 feet into a basalt hill, and struck a body of very promising wash, but it was not payable. The prospects are considered well worth following up in this locality. At Mount Werong about 40 men are employed, with varying success, the want of sufficient water being a great drawback. Munn and Party, who have a gold-saving machine and large dams, have done fairly well during the year.

Messrs Cotton and Docker have taken up about 25 acres in gold leases for sluicing purposes about 4 miles down the Abercrombie River from Mount Werong. They are now carrying out the preparatory work—such as the cutting of races and the construction of dams.

James Anderson and Party have also taken up an area of ground under lease for the same purpose, and intend working on a large scale. A few fossickers are still scattered throughout the division, and seem to be able to make a living. Just before the end of the year one of them unearthed a nugget weighing 2 oz 8 dwt. at the junction of the Isabella and Golden Gully.

The total number of men employed in the division mining for gold may be set down at 150.

O'Connell Division.

With the exception of a shaft being sunk at Breakfast Creek by Messrs Condon, Couatts, and Party, the mining in this division may be deemed fossicking. About 50 men, however, manage to make a living working the alluvial ground in the creeks and gullies, and it is estimated that during the past twelve months some 200 oz. of gold were won by these men. There is no immediate prospect of a revival in quartz mining.

Oberon Division.

In the Oberon Division about 200 men are gold mining, and the quantity of gold won was 361 oz., or 21 oz. less than the previous year. The work carried on, however, has been principally of a prospecting nature. Greater confidence is being shown in the possibilities of this district. A strong syndicate has taken up ground at the Black Bullock Mount, and also on Lambert's land, and are expending a large sum in thoroughly testing their property. The prospects met with are very encouraging, and the prospectors are sanguine that success will ultimately crown their efforts.

Bathurst Division.

The returns show that about 147 men are scattered throughout this division principally fossicking, and on the whole mining work is carried on in a very desultory manner. The men only turn their attention to such work when other employment is not available.

At Limekilns Sinclair and Party are testing a reef of a fairly promising nature, but the want of water prevented the party putting through all the stone raised, and were ultimately compelled to apply for suspension of the labour conditions.

Wattle Flat Division.

This division, formed during the year, was originally included in Sofala. There are 620 men employed mining for gold around Wattle Flat, and the total quantity won is estimated at 1,984 oz. The Great Victoria Company (Limited) have their main shaft down 414 feet, and the lode averages 2 feet wide, with an easterly dip. A crushing of 115 tons yielded 94 oz. of gold. At the Daisy Bell Mine the main shaft is down 101 feet, where the vein is 2 feet wide. A large quantity of stone has been raised, and the party are busy erecting a 5 head battery. Some very fair stone is being raised at Spring Creek, and the Eldorado party are awaiting the erection of a plant to commence crushing. A large number of parties are in receipt of prospecting aid in this locality, and have good indications of striking something payable.

Sunny Corner (Mitchell) Division.

This division is at last receiving the attention it deserves from investors, with the result that several properties are being opened up which are likely to be heard of later on. The yield of gold has increased very considerably, as will be seen from the following comparative statement of the last three years—

1895	3,645 oz.
1896	1,826 „
1897	4,169 „

With the exception of Sunny Corner Silver mine, which has been idle since December, 1896, every mine in the division is actively at work, which shows that confidence in the district has been renewed. The Paddy Lackey is working steadily, the year's output being 414 oz. from 550 tons.

The Big Hill Gold mine is now considered among the payable mines of the district, the stone treated being 1,576 tons for 710 oz. The prospects of this mine are so promising that the owners propose sinking a new shaft to a depth of 500 feet. The Ashton Gold mine is also raising stone of a similar quality. During the past twelve months a very complete crushing and cyanide plant has been erected at the Lagoon Creek by an English company, at a cost of £17,000. Another company, known as the Paddy Lackey Deep Level Extended, has been formed to prove the ground adjoining the Paddy Lackey to a depth of 1,200 feet. This venture is looked upon as likely to prove successful.

This is a favourite locality with fossickers, 200 of whom may be found scattered throughout the division. They all appear to be doing fairly well.

Orange Division.

In reviewing the year's operations in the Orange Division we find a big falling off in the output from the Lucknow mines, which has seriously affected the returns from this division, which in 1895 ranked as the largest gold producer in the Colony. For the sake of comparison the figures for the last three years are given—

1895	83,342 oz
1896	21,446 „
1897	12,524 „

Although the Lucknow mines are responsible for this falling off, it must not be imagined that these mines are any the less valuable, as during the past year the strike, which lasted for several months, had the effect of seriously hampering the operation of the companies. The fact that very extensive prospecting operations have been carried on show that in the near future it may reasonably be expected that some handsome returns will be the result. The Wentworth Proprietary Company, Lucknow, are now on good stone, and have their main shaft down 900 feet. The stone raised was 6,225 tons, which yielded 5,281 oz. of gold. In the same locality the Aladdin Company have two shafts down 600 and 700 feet respectively. Their output for the year was 6,064 oz. from 3,027 tons of stone. This Company have also a good show of ore ahead. The D Arcy Estates Gold mining Company (Limited), also at Lucknow, have the deepest shaft on this field, having reached 920 feet, some ore has been raised and sent to England for treatment, but the returns are not yet to hand. The Wentworth

Extension

Extension Limited, are still sinking for the lode, and have now reached 628 feet. It is gratifying to know that full work is now proceeding in these mines, and that the sad effects of the strike are disappearing, the men left out of employment having drifted into other localities and started prospecting on their own account. Large works are about to be erected on the Macquarie River on the deep ground. The Victory Company at Forest Reefs are raising wash, but hardly up to expectations. The Ballarat of New South Wales Gold Mining Company, also at Forest Reefs having located the deep lead by means of the Government diamond drill are vigorously proceeding with their shaft, which at the end of the year had reached 157 feet. The company hope to strike the old great extended lead, and probably the junction of several leads with this shaft, when rich returns may be anticipated. Extensive prospecting operations are being carried out at Byng, in the vicinity of Whitney Green, from which important developments are expected at any time, the indication being exceptionally promising and the erection of large works are in contemplation. The Springfield Pastoral and Estates Company Limited, Byng, intend employing a large number of men, and a private township is being laid out on the estate. The deposits at Bulga, are being used at the Lake Illawarra Company's smelting works for flux, and thus promises to open up a field for labour. The Blechnington Mine is now being worked, and the shareholders have hopes of speedily getting a return for their enterprise. The Coolgardie Gold Syndicate at Four mile Creek, Cadia, is reported to be on good stone, but no reliable information is to hand as to the field. The Belmonte and Great Bluff Reefs at Ophir are idle, and though small leaders rich in gold are continually being discovered, they are not permanent.

Molong Division.

The gold yield from this Division is very small, about 38 oz. Mining matters, however, have a tendency to improve. The Copper Hill has been taken up by a syndicate, who propose thoroughly testing the hill, which undoubtedly contains a large deposit of highly mineralised lode stuff, and in days past turned out some high-grade copper ore. Several prospectors are carrying on work in the locality, under aid from the Prospecting Vote, but no discovery worthy of notice has so far been made. Work on Delaney's Dyke is practically at a standstill.

MUDGELE MINING DISTRICT.

Cobbora Division.

On the Tucklar Gold-field, which is principally confined to alluvial workings, about 250 miners have been at work during the year. The yield of gold amounts to 2,457 oz. from 8,628 loads of dirt washed; value, £3 15s. per oz.

At Cranky Jack's Gully, situate 4 miles east from Tucklan, about 20 men have been fossicking, the yield of gold being 120 oz from 600 loads of dirt. And at Cobbora Gold-field, situate 5 miles south from Tucklan, 30 miners have been at work, the yield of gold being 300 oz from 1,500 loads of dirt.

Want of water has been the great drawback in this Division. The miners are now compelled to leave for want of water, even for domestic use.

At the end of the year there were only about 150 miners in this Division, owing to scarcity of water.

The total number of loads of dirt washed in this Division is 10,728 for a yield of 2,577 oz. of gold, valued at £3 15s. per oz.; value of gold won, £10,788 15s.

The yield from this district is regulated by the rainfall. In 1896, which was exceptionally dry, the quantity of gold won was 2,454 oz. When water is plentiful, this is a favourite locality with fossickers. They speak well of the prospects obtained, and anticipate good results. These fields were last year included in the Denison Town Division.

Leadville, late Denison Town Division.

Owing to an alteration in the boundaries of the Mining Districts, the Tucklan, or Stringy Bark, and Cobbora Diggings, are now embraced by the Cobbora Division, where the returns from these fields will be found. Consequently there are no returns to report from this Division.

Gulgong Division.

The Gulgong Gold-field, whilst showing a decided increase in the number of men engaged in the search for gold, has been somewhat restricted in the output, as compared with the previous year. During the year 1897, six thousand (6,000) ounces of gold were won in the Division, being a decrease of one thousand (1,000) as compared with 1896. This is greatly due to the fact that the rich gold bearing lead at Yamble, on Mrs. C. M. Lowes' private land, which enhanced last year's output, has been worked out. There have also been other forces at work to militate against an increase. The opening out of reefs throughout the district, from which few crushings have yet been taken, being so much dead work, which only at the present moment will begin to give proof of their good yielding qualifications. Hitherto, in all previous reports, gold has been won from alluvial leads, that from reefs and lodes having been infinitesimal; but with this year's returns the metal taken from reefs may be put down at five hundred (500) ounces.

A large area of land, both on Crown and private property, has been taken up. Twenty-four (24) gold-mining leases were applied for on Crown lands, embracing an area of one hundred and forty-eight (148) acres; six (6) gold mining leases were applied for on private land, covering an area of 24 acres; twenty-four agreements, under section 33 of the Mining on Private Lands Act, were registered during the year. On the whole, the activity of 1896 has been well sustained throughout 1897, and the outlook for Gulgong at the present time in the direction of quartz reefing is very encouraging. The difficulty of exploring these reefs may be judged from the fact that they lie under the old alluvial leads, having formerly fed those rich ancient water courses, the caps having practically only been denuded, and the rich stone left behind. Much interest must attach to these discoveries, for most of the reefs are found in intrusive diorite dykes, which intersect the strata in various parts of the field, which have no connection with the usual flat leaders hitherto found, which pinched out at the junction of the intrusive rocks with those of sedimentary origin, and, as sufficient work has not as yet been done on them to trace them down to the slate, nothing definite can be stated as to their lasting quality. It is more than likely, however, that they will prove to have been formed about the same time as the intrusion of the diorite dykes, and that they traverse the slate country, and, if so, their permanency is a surety.

A few rushes of slight importance occurred during the year, the most important being that to Scabby Gully, on Mr. J. Jackson's private land, about 5 miles north west from Gulgong. At one time about three hundred (300) men were camped there, but as only a few claims reached payable dirt, the miners soon left. Egan and Party washed as much as 30 oz. to the load, but barely a colour could be obtained in some of the surrounding claims.

Helvetia Lead and Moussy's Paddock still maintain their reputation, though many of the claims have been worked out. The famous No. 1 Duggan's Paddock (Helvetia) still continues to maintain its $\frac{1}{2}$ oz. to the load, yields taken from dirt which, in some places has a 50 foot face. The workings in the claim are of curious formation, huge pillars of limestone obtrude from the bottom, and the wash is followed through caves and caverns which sparkle with calcite crystals of varied forms. The present holders are by no means working out the whole of the dirt, which is a yellow pug, containing masses of concretionary nonstone and zircon; occasionally fossil bones and teeth are met with, and it is unfortunate that many fine specimens cannot be procured for the museum. The output from the various claims for the past year was about 7,000 loads for 2,000 oz. of gold.

As before mentioned, quartz reefing has engaged especial attention. On the Black Lead, at its junction with the Paramatta Lead, Hasenkan and Party cut a reef in their Shellback Claim at 95 feet, in what proves to be a rich dyke, traversed by a mass of minute quartz leaders. A 2 ton crushing yielded 57 oz. of gold, and many other crushings yielded good results.

The Happy Valley Reefing Syndicate cut a huge body of quartz, carrying gold in their south shaft, which prospected well, but, at the time of writing, no battery test had been made. The reef was going down almost vertical, and gold showed freely in the stone.

For nearly two years, prospecting has been pushed forward by the Salvation Hill Syndicate on a huge pyritous formation to a depth of 160 feet. Several assays have been made, with most encouraging results. Free gold shows frequently throughout the workings, and the owners are well pleased with the property, believing that in the near future important discoveries will be made.

The Royal George Syndicate, at Cullenbone, have a shaft down 170 feet on a reef, and have commenced to put in a level to the south at 90 feet, on a chute of stone which averages from 3 to 4 oz. to the ton, and a crushing is being taken out. Work at Cudgebegong is still being pushed forward, and many other reefs are being opened out.

Hargraves

Hargraves Division.

The returns from the Hargraves Field show that 2,326 oz. of gold were won as compared with 2,280 during 1896. Stewart and Warry, and Spratt and Milton, are doing good work on leases held by them close to the town, and have had several small crushings with satisfactory results, but owing to an influx of water at about 50 feet, deep sinking has been found impossible without a large expenditure in pumping machinery, which the lessees are not in a position to incur. Several reefs carrying good prospects have been traced to water level. Genuine efforts are being made by several of the leaseholders to develop their properties, but on the other hand it might be truly said that many of the leases are held for purely speculative purposes. About 300 men are employed throughout this Division.

Mudgee Division.

The principal mining in this Division at the present time is being carried on by fossickers, who manage to earn a living at the work. Several grants from the Prospecting Vote were made during the year, but no new discoveries have been reported as the result. The Mount Margaret Mine at Stoney Pinch is idle, the indications being disappointing. Some very good prospects have been obtained from reefs on private land at Log Paddock and Eurrundery, and eleven authorities to enter have been granted. No application for leases, however, have yet been lodged. The Mudgee Gold-field with others has suffered severely from a great scarcity of water for mining purposes.

Windeyer Division.

Mining matters have not been very brisk during the year in this Division. Messrs. Winter Brothers have a very good claim from which they crushed 573 tons of quartz and the quantity of gold won was 585 oz. They have about 250 tons at grass but are delayed for want of water for crushing purposes. This party have just completed erecting a 5-stamper battery. Messrs. Liebenritt and Party have endeavoured to work the Gully Claim, but have had a deal of water to contend with. They had several small crushings out of this shaft, which barely came up to expectations. Liffley and Party's claim, known as the Golden Gate, has been practically abandoned. There has been eight gold-mining leases applied for comprising an area of 34 acres, the majority of which have been executed. The alluvial mining is almost at a stand-still; there are, however, a number of men fossicking about the various creeks with varying results. About 1,400 oz. of alluvial gold have been bought by the local storekeepers, valued at £3 17s. Cd. per oz., and about 1,732 oz. quartz gold from the various leases, valued at £3 18s. per oz. This is an increase of about 700 oz. over the yield for 1896.

Peak Hill Division.

At Peak Hill, mining has not been very brisk during the past year owing to the exhaustion of oxidised ores, and also on account of the scarcity of water during the early part of the year. The treatment of refractory ores by calcining and grinding in amalgamating pans has not been altogether a success, as high as 6 dwt. per ton being left in the tailings. In face of all the disadvantages this field has to contend with it is satisfactory to note that the yield last year has been maintained, the figures being 6,453 oz., as compared with 6,428 oz. won during 1896. The Peak Hill Proprietary Company treated during the year, 2,802 tons for a yield of 1,131 oz. They have continued developing their mine, and the main shaft is now 600 feet deep, and shows a fairly large body of ore which the company have been advised to treat by chlorination. This company sold some 30,000 tons of tailings and the purchasers are now erecting vats to treat these tailings by the cyanide process. It is expected that the treatment will be difficult as the tailings contain copper and charcoal, the latter having got mixed with the tailings through an experiment in burning ore in the open air. Sixty-six per cent. extraction is all that is expected by the purchasers. The Proprietary's 35-head battery has not been fully employed, the only free ore crushed during the last half-year being that obtained by tributors.

The Crown of Peak Hill in sinking its main shaft struck the Great Eastern chute at a depth of 320 feet, and worked it profitably to a depth of 560 feet. In continuing operations below this depth a large influx of water took place which will retard work till a sufficient pumping plant is erected. This company has also a valuable asset of tailings which they have sold, and the proceeds are to be devoted to developing the mine.

The Great Eastern Mine still employs a fair number of men, and about pays expenses. Recently, at the 250 feet level, a chute of payable ore was discovered which has been tested in quantity with satisfactory results.

In Wythes and Mooney's Mine no work of any importance has been done during the past year, although it is supposed to contain some valuable deposits of pyrites ore. This mine is now being worked by tributors. The year's returns from this mine have not been made available.

At McPhail, 9 miles north of Peak Hill, the Myall United Gold-mining Company have completed their battery of 40 stampers, and have opened up their mine on an extensive scale. The yield of gold from this mine was not up to expectation, scarcely exceeding 6 dwt. per ton. Two thousand tons of quartz per month are put through the battery, and the yield is about payable. Cyanide vats are erected to treat the tailings, and it is said that the returns from this source are satisfactory.

Another mine at this place, belonging to Tattersall, Ashby and Party, has given satisfactory returns during the year, the ore yielding from 14 to 24 dwt. per ton, which gives a fair margin of profit over working expenses.

At Tomingley, the Tomingley Gold-mining Company, Limited, has done a large amount of prospecting work, and raised 500 tons of ore which, when crushed, gave a satisfactory return. Waddell and Party have a cyanide plant here treating tailings from stone crushed many years ago, returns being very satisfactory. In this Division no fresh discoveries have been made during the year, and very little prospecting has been done.

Wellington Division.

The principal mining carried on in this Division during the year has been at the Mitchell's Creek Freehold Gold Estate. The quantity of stone treated exceeds that of previous records, being 13,500 tons, which yielded 9,084 oz., valued at £32,382.

The number of hands employed by this company now reaches 208. No other quartz-reef in the Division has proved payably auriferous.

The alluvial mining has been confined principally to the Macquarie River, owing in a great measure to the scarcity of water. The quantity of alluvial gold won is estimated at 200 oz., but it is next to impossible to obtain an idea of the quantity of wash-dirt put through.

TAMBAROORA AND TURON MINING DISTRICT.

Hill End Division.

During the year the principal mining operations for quartz gold has been carried on at Red Hill, Tambaroora, and Hawkins' Hill, while a few parties have been working at Cline's Gully, Sally's Flat, and Macquarie River with payable results. The total quantity of quartz treated at the various batteries for the year is 5,844 tons for a yield of 2,450 oz. 11 dwt. 12 gr., an increase of 1,131 oz. on last year's returns.

In alluvial gold-mining there has been a very large falling off in the yield owing to the very dry season and scarcity of water for mining purposes. As the alluvial gold in this Division is won by fossicking and sluicing, it is not possible to give the quantity of wash-dirt treated.

During the year 200 Europeans and 48 Chinese have been employed in alluvial mining who have won 1,326 oz. 3 dwt. 3 gr. of gold, being a decrease of 1,358 oz. on last year's returns. Several Companies are still prospecting and working the basalt hills near Macquarie River for alluvial gold, but so far without any payable results.

Rylstone Division.

There has been no systematic mining carried on in this Division during the year. Miners have been engaged principally in prospecting and fossicking, and it has been found difficult to arrive at an estimate of the quantity and value of minerals won.

At Tabrabucca two parties have been working for some months, but the results have not been satisfactory enough to warrant a hope that a permanent industry will be created.

Operations

Operations have started again at the Cudgegong Copper-mine, but the work last year was confined to pumping water from, and opening up, the old shaft. There was no output of ore, but the parties interested anticipate that during the current year a number of men will be employed if sufficient capital is forthcoming to develop the mine.

There is no machinery in the Division, and the ore raised was treated outside the district.
There were no new finds during the year.

Sofala Division.

While no remarkable discoveries have been made in this Division for 1897, the yield of gold has been fairly maintained, considering the drought which has prevailed all the year. In 1896 the yield was 4,753 oz., and 4,086 during the year under review.

There are very few alluvial miners who have won more than a bare living, away from the Turon River, for the reason that the mullock would not pay to cart to the river. At Jew's Creek, a few miles west of Sofala, which, in 1896, gave several miners good returns, has not returned any gold this year. There are about 40 alluvial miners at Box Ridge and Lower Turon who have been doing fairly well, notably A. Burke, whose average for the year has been about £4 per week, and the others much less. At Tobin's Oakey, about 15 men have been earning good wages, owing to the dry season, the ground being very wet. At Palmer's Oakey about 70 men are earning a bare living in and about the creek. The Moonlight Race, owned by Tacke and Party, has not been running during the year, and this race usually kept 25 men employed sluicing above the junction, and gave very fair returns. At Upper Turon about 40 miners are getting fairly good returns on and near the river. In the immediate vicinity of Sofala 100 miners are earning a bare living, with a few exceptions, namely, Oldman and Sons, who are winning about 1½ oz. per week each in an extended alluvial claim between Row's Hill and Turon River in from 20 to 30 feet of sinking. Brazenall and Party, at Razorback, have a lot of washdirt stacked, which yields 5 dwt. per load, but the scarcity of water prevents them treating it.

The Turon Gold-mines (Limited) has a plant valued at £1,000. They have a 10-head battery, with several portable engines, a steam winch, sheds, and offices. They have several shafts, varying from 50 to 400 feet in depth, the vein of quartz averaging from 1 to 4 feet thick; there are 12 men employed at present sinking on the vein and raising ore for crushing when a sufficient water supply is available. The vein underlays 46 degrees, with a N.W. and N.N.W. strike.

The Surface Hill Gold-mining Company (Ltd.) are putting in a tunnel at present 420 feet in length, deepest level about 179 feet; 5 men are employed, and during the progress of tunnelling have cut several small leaders, but not anything payable yet.

The Reilly's Creek Amalgamated have a plant valued at £300. A very complete 6-head battery has been erected. The deepest level is 90 feet, depth of shaft 100 feet, vein varying from 1 to 7 feet; underlays west strike north and south. During last six months they have crushed 397 tons for a yield of 196 oz. of gold, valued at £692.

The returns from Newcastle and Stockton Gold-mining Syndicate, at Surface Hill, were not available.

The Big Oakey Gold-mining Company have a plant valued at £2,000. They have a 10-head battery erected, and employ 4 men. A tunnel 400 feet has been put in along the lode, which averages from 1 to 4 feet in width. About 147 tons of quartz have been crushed, which yielded 6½ oz. of gold, valued at £221. There is a great quantity of ore at grass waiting for water to start crushing.

The Caledonian Quartz Claim, owned by Crawford Bros., crushed 87 tons for 44 oz., valued at £156.

The Whalen's Hill Gold-mine, owned by W. H. Campbell, has a shaft 225 feet in depth, where the lode is 3 feet. There are 280 tons of ore lying at this mine waiting for water to crush.

O.K. Gold-mining Syndicate, tributed by W. E. Franklin, have several shafts, varying from 90 to 160 feet in depth. They crushed during the year 71 tons, for a yield of 60 oz., valued at £184.

Elkins' Extended Quartz Claim, Back Creek, Crudine, crushed 254 tons, yielding 188 oz., valued at £670.

The Halpin's Secret Gold-mining Company, at Box Ridge, treated 18 tons, which yielded 2 oz. 6 dwt. per ton; 8½ tons, which yielded 1 oz. 3 dwt. per ton; and 45 tons, treated at a local battery, returned 12 dwt. 2 gr. per ton. It is considered this would be a valuable property if capital were brought to bear on it.

The Razorback Antimony and Gold Mine, owned by Wm. Brazenall, has now been proved to a depth of about 260 feet. Some 60 tons of ore are at grass, but a difficulty is experienced in treating it.

The Queenslander Gold-mine, owned by W. B. Neales and J. C. F. Johnson, have a very complete plant. This mine is worked on the open-cut system. The lode is from 40 to 50 feet wide, and in free gold will average 6 dwt. per ton, with a very large percentage of pyrites, which yielded on assay 7 oz. per ton. They have crushed about 200 tons during the year, and have several hundred tons at grass, which will be treated when water is available.

There are many more reefs in this district awaiting capital to develop them. One very large reef on private property, leased by Wm. Flynn, on Waverley Run, Crudine, is about 15 feet wide where worked, and can be traced for 200 yards on surface, a crushing from which of 10 tons yielded 10 oz., valued £38. There are also on this property two more large reefs carrying pyrites. The owners have started an open-cut along the reef, but will have to cart the ore 4 miles for treatment.

Ironbark or Stuart Town Division.

There is a decrease of 334 oz. in the gold yield from this Division as compared with 1896, the figures being 3,190 oz. The decrease is in the alluvial gold, attributable to the want of water for sluicing purposes. During the year special gold leases, aggregating 975 acres of the Macquarie River bed, were applied for to work the drift by steam dredges and hydraulic sluicing. This is an entirely new branch of mining in New South Wales, and, if successful, will add greatly to the importance of the district. This system of mining is being successfully carried out in New Zealand, and as the bed of the river is believed to contain gold in payable quantities the necessary energy and enterprise on the part of the promoters will not be lacking to make the venture a success. An effort was made on the river at Weir's Point to work some ground by hydraulic sluicing, but the machinery proved inadequate, and work has been abandoned for the present.

LACHLAN MINING DISTRICT.

Cargo Division.

The Mount Durnard Syndicate (Limited) are erecting new machinery in this Division, valued at £8,000, and if rain would fill the dams a full complement of men would be put on. The Ironclad Mine is unfortunately idle, the valuable machinery erected being unsuitable for the refractory ore to be treated. It is feared that unless a new method is adopted the mine must remain closed. No other properties are at work in this locality, but a little prospecting is being done in the creek and on the flat.

Cudal Division.

The returns from this Division during the past year may be put down as nil. Messrs. Payne and Tonkin are, however, sinking at Reedy Creek, and have hopes of opening up a copper lode carrying a small percentage of gold. At Boree some work has been done to test the wash underlying the basalt, but as yet no payable returns have been got. Messrs. Summerfield and Party have received prospecting aid to test a gossan lode on Prior's land, and are now down about 60 feet, where the lode is some 6 inches wide. A few other parties are in receipt of aid to test some land in the vicinity of Paling-yard Creek. No results have followed the expenditure so far.

Forbes Division.

In the Forbes Division, the mining work done during the year, I regret to say, as regards mining, has been principally of a prospecting nature, and this has been greatly hindered by the want of water, which has prevented alluvial mining to a great extent, and has seriously affected quartz-mining, as the batteries were unable to treat the stone, the returns from which were required to enable the owners to carry on work. In this Division, in years past, the alluvial mining has been very profitable; but so far it may be safely said that no payable reef has been discovered.

Sinclair's Mine is part of an auriferous belt which extends for many miles north of Forbes, through Parkes, Allectown, and Peak Hill, to Tomingley, and probably on to near Dubbo. The negotiations for the purchase of the mine were completed, and the Company have lost no time in starting to prove its value. A main shaft is down 80 feet to the water-level, and there are three other shafts, the same depth, for ventilation, together with 800 feet of driving. To deal with the water, machinery is required; three engines are being erected—one for crushing, one for winding, and one for pumping. The Company intend to thoroughly prove the mine at a depth. At the present there are 500 or 600 tons of stone at grass, showing fair gold.

The

The crushing plant of ten stampers is nearly complete, and then only water is required to put the mine in full work. Two large dams of 5,000 yards each have been made, and the first heavy thunderstorm will probably fill them. The name of this company is "The Lachlan Gold-field Company (Limited)."

North and south of Sinclair's Mine claims are at work, but they are not on the reef.

On Thomson's Hill, half a mile south of Sinclair's, Foster and Party are working on what appears to be the same belt as Sinclair's. They have raised a quantity of stone, which is reported to be of good quality.

South of Forbes several quartz claims are working, but on the Britannia line of reefs there is no report of any important discovery.

Two private parties are working the "Rise and Shine" or "Fountain Head" Reef or Lode, in the town, from which very rich specimens were obtained some years ago. Indications are favourable, but as yet these claims are not thoroughly proved.

At the Pinnacle, which is about 22 miles south of Forbes, the two principal mines are the "Pinnacle Gold-mining Company," and "The Croker's Reef Mine." On the first-mentioned mine work has been going on for eighteen months, but the results are only partially satisfactory; 60 men have been employed; one shaft has been sunk 100 feet, starting at the 120-foot level, making in all 220 feet. Another shaft has been sunk 180 feet. From this mine 2,000 tons of quartz have been crushed, averaging about 5 dwt. per ton. At the present time the manager proposes to open up the mine still further, to prove if the shoots containing gold are extensive. On Croker's Mine an average number of 15 men are employed. Two shafts, 200 feet apart, have been sunk to a depth of 90 feet. These shafts are connected at the 90-foot level, and drives are being extended north and south from them. From this mine about 2,000 tons of quartz have been crushed, yielding from 3 to 5 dwt. per ton. It is under the same management as the Pinnacle Mine, and at present is closed down to make arrangements for further capital. It is to be hoped, in the interests of mining in this Division, that the necessary capital will be forthcoming to prove these mines to a depth, and this will probably be done in the Colony, if not by English capital. To leave a mine which contains a large reef carrying gold nearly payable, without proving it to a depth, would be simply expending money for another company to probably reap the benefit. All the working in connection with these mines is very cheap. The reefs are large and easily worked. The gold is mostly free, and contains nothing to interfere with amalgamation. A 30-stamper battery has been erected by the Company to treat the stone from both these mines. This battery does not crush for the public. There is a public battery of five stampers. In all there are about nine mines at work in this locality, seven of them employing from 20 to 24 men.

At the "Ironbarks" a syndicate of eight have a payable mine. They have crushed 350 tons, yielding from 12 dwt. to 3 oz. per ton.

On the "Soldier's Reef" three men are working; they have crushed about 25 tons for a yield of from 12 to 15 dwt.

Other small parties of miners are working in this locality, taking out a few tons of stone, and trying the various reefs. The country is soft slate, easily worked, and it is probable that payable reefs will be discovered. Plenty of rich shoots of gold-bearing stone have been worked in this locality on the surface, but there are no workings to any depth.

At the Pinnacles a village has been laid out, and when the mines are in full work the population is about 400.

Parkes Division.

There is a considerable falling off in the returns of gold from this Division, the yield being 9,064 oz. as compared with 12,500 oz. won in 1896.

The principal mines worked at Parkes during the past year are the Bushman's, the Dayspring, the Golconda, the Phoenix, the Birthday, the Kohinor, Quayle's, and Burgess and Smith's Mine. The Bushman's Mine comprises an area of 49 acres, and has been worked for many years—first as claims and then as leaseholds. The depth of the mine is 700 feet. Three hundred and ninety feet were sunk during the past year; drives were put in to the extent of 1,080 feet; 85 men are employed; 3,023 tons of quartz were crushed for a yield of 2,063 oz. 18 dwt. of gold; 4,684 tons of tailings were treated for a yield of 562 oz. 5 dwt. of gold. Various improvements have been made in the mine. A cyanide plant has been erected, smelting furnace, assaying office, &c., and the mine has been equipped with three new patent safety cages.

The Dayspring Mine embraces 30 acres of land. During the past year this Company have driven 300 feet at the 200-foot level, and 250 feet at the 300-foot level; also 150 feet at the 400-foot level. They have crushed 2,500 tons of stone for an average yield of 6 dwt. per ton. This is payable. One dividend of £500 has been paid during the past year. The prospects of this mine are fairly good.

The "Golconda" is worked by a few hands, and at no great depth—say, 120 feet—rich specimens were obtained. No crushing is yet to hand, and the work done is confined to sinking and a little underhand stoping.

The Phoenix (a tribute party) are working on a cross leader at the 400-foot level. The stone crushes over 2 oz. per ton, but the country is very hard, and the tributors are not making more than wages.

The Birthday Mine—about 4 miles south of Parkes—did a considerable amount of work, driving and back-stopping until their water supply gave out. The reef is a large one, consisting of alternate large bunches of ore and then intervening pinches. The results of crushings are not easily obtainable, but it is reported that 6 dwt. per ton is the average yield. The Company have erected a 10-stamper battery, and have recently purchased an adjoining block. This is considered a valuable property.

At the "Kohinor" little work has been done, the last crushing not being payable.

At "Quayle's" the same leader is being worked as in the Phoenix, the cross reef is small but rich; but the party are not, it is said, making wages.

Burgess and Smith's Mine at Reed's Gully.—The owners have a small battery of five head of stampers. They are working a very large formation, but only follow the quartz leaders in it. These leaders are occasionally very rich, but do not average 1 inch in width.

Fifield and Carlisle Division.

During the year in this Division only 37 tons of quartz were crushed, for a yield of 52 oz. 5 dwt. of gold, valued at £198 11s. As regards alluvial, 7,209 loads of washdirt were puddled for a yield of 882 oz., valued at £3,351 13s., and 1,966 oz. of platinum, valued at £2,949. Mining in this Division is in a very languishing condition, many of the miners having left for Claremont, in Queensland. Carlisle is now practically deserted; but there is no doubt that this district will, later on, attract the attention of miners. It is certainly auriferous, and probably contains payable reefs.

Condobolin Division.

In this Division there are a few mines at work, but it is questionable if any of them are payable under present circumstances. The most promising mine is that known as "Winter's," on Mowabla Run, about 15 miles north of Condobolin. A recent crushing of a few tons gave 3 oz. per ton. This mine wants proving to a depth, where, if the reef continues as large and valuable as it is near the surface, the mine will be a very valuable property. Some copper lodes are being prospected about Melrose and the Yellow Mountain. At the last-mentioned place Byrum and Party are reported to have made a valuable discovery, and they have applied to lease 40 acres for copper. At Cujong work is about to be resumed in the claim known as the "Yellow Streak," from which some very rich stone has been raised. It will now be thoroughly prospected, and if payable stone is obtained other mines at present idle will resume work.

Alectown Division.

At this place little mining has been done during the past year. In this Division the principal mine is the "Monte Carlo," about half-way between Alectown and Peak Hill, which is said to have paid a dividend of £62 per man during the past year. These miners are industrious, and will thoroughly prove the mine before they leave it. Just below the "Monte Carlo," on a wide flat, a party of prospectors seeking alluvial gold, at a depth of 60 feet, got some excellent prospects, but could not trace the gold any distance. The prospectors abandoned the claim, but another party have taken their claim up. It is very probable there is a lead in this locality, but the flat is so wide it requires a large number of shafts to prospect it. Very little gold was got in this Division last year, probably not more than 150 oz. In Beazley paddocks very little work, if any, has been done for some time, but one or two leases are held under the "Mining on Private Lands Act."

Grenfell Division.

The Grenfell Division shows a slightly increased yield of gold for the year as compared with 1896. The figures being—1896, 1,761 oz.; 1897, 1,780 oz., of the value £6,855. The dry weather has very much retarded operations. Several applications for suspension of the labour conditions have been made to the Warden, the cause for suspension being owing chiefly to the want of water.

The "Enterprise" Mine has changed hands, and it is said that it is the intention of a Victorian Company to work the property with vigour during the current year. Two Cyanide Works are in full swing, treating sand or battery tailings. These works have been erected at a cost of about £4,000. The cost of one being £1,500, that of the other £2,500. There are two batteries on the field at Grenfell, and a Huntingdon Mill at the Seven-mile. At the "Pinnacle" there are also two batteries. About 220 miners found employment in the Division, 170 (say) in quartz, and the remainder in alluvial.

Murrumburrah Division.

There has been little improvement in mining operations in this Division for the year 1897. There is, however, a good deal of what may be termed fossicking going on at the Reserve near the red bridge at Currowong, and a little round about Cullinga and Murrumburrah. In that part of the Division it is estimated that probably fifty or sixty men find employment. There were purchased locally 1,992 oz. of gold of the value of £7,685, but by far the greater part of this gold must have come from Cunningham Creek. Tilden's Proprietary Gold-mining Company has closed down, and has, I understand, disposed of the whole of its plant and machinery. The purchasers, some of whom are local men, intend shortly to reopen the mine and work it with vigour. Two parties have been receiving aid from the Prospecting Vote, one at Berthong and the other near Wombat, but they do not appear to have been very successful.

Gundagai Division.

There has been a considerable falling off in the quantity of alluvial gold won in this Division during the year; but the decrease in that direction is amply made up for by the increase in the quantity won from quartz, the total quantity won from both sources being 3,438 oz., as compared with 2,600 oz. won during 1896.

It is almost impossible to get an accurate return of the workings of either. In the case of alluvial, the results are brought in small quantities to the local storekeepers, who are not furnished with the quantity of washdirt treated, and, in the case of quartz, as there has been no machinery until recently in the district, the stone has been treated at the Adelong batteries, and the gold, the result of the crushings, sent through the local storekeepers and Banks.

Notwithstanding these difficulties, the returns furnished show an increase of 838 oz. over that of last year, with the prospect of a considerable increase during the present year, in consequence of the fact that the Camden Exploration Company, at Johnston's Hill and Mount Kimo, and the Booth Reward Company, at Coolac, are erecting extensive machinery to thoroughly test the gold-bearing quartz of those localities.

During the past year, 18 applications for gold leases on private lands, and 13 applications for ordinary gold leases have been lodged, and 174 applications for authority to enter. This alone is an evidence of increased activity in mining matters.

The prospects of the mining industry in this Division are brighter than they have ever been, and the result of the development of Johnston's Hill, Mount Kimo, and Booth's Reward Claim, will decide whether this Division contains gold in payable quantities, and determine the permanency of the field.

Some very good returns have been made during the year, notably from the Turn of the Tide Mine, on Johnston's Hill—102 tons were put through for 743 oz.; from Beezley's Gold lease, 44 tons for 163 oz.

The Howell's Consolidated Gold-mine (Limited) are working the Prince of Wales Mine on the Kimo Ranges. They are now down with their main shaft 340 feet, and employ 120 men. A complete winding plant, with a 20-head battery, has been erected, and over 3,500 tons of stone are at grass ready for crushing. The party working on the Jackalass Lead, South Gundagai, raised 630 loads, which yielded 175 oz. of gold. Several parties are vigorously carrying on prospecting work, in the hope of discovering new leads, and some important discoveries are expected in this direction.

Temora Division.

The output of gold from the Temora Field during the year is 3,419 oz., as compared with 4,066 oz. in 1896. Although there is a reduction in the output the prospects of the field are much improved. During the year there were three new payable reefs found, two of which were found through assistance from the Prospecting Vote. There are twenty parties prospecting with very fair prospects of finding payable gold, as they are following reefs containing gold. Want of capital among the mining population is a great drawback to the development of the field. There are two parties prospecting for alluvial on private property. The details of crushings as far as can be ascertained, were 258½ tons of stone for 254 oz. 5½ dwt. of gold. Several parties are still carrying on work in the hope of striking a second bottom, which they are sanguine will prove rich. In the interest of the district it is to be hoped their efforts will prove successful.

Barmedman Division.

Mining matters were very dull and showed no improvement upon the previous year. The total yield of gold for this Division, was 4,693 oz., valued at £15,213 4s. 3d. The Barmedman Cyanide and Milling Company, have done good work with satisfactory results. The Fiery Cross Gold-mining Company has been under suspension. The capital was exhausted through the great expense in trying to cope with the great influx of water, but an attempt is being made to secure capital, and, if successful, work will be proceeded with. The last suspension expires early in February. Eighty-five miners' rights were issued, and twenty business licenses. One application for lease under the "Private Lands Act," was received. The lessees at the lease held under the "Mining upon Private Lands Act," known as "The Golden Hope," did a considerable amount of work without satisfactory results, and employed two men for four months. The total number of men employed in connection with mining was twenty-eight. If the required capital is procured for the Fiery Cross Mine, it is probable that mining generally in this Division, will improve during the year 1898.

Reeflon Division.

Owing to the depth reached—the water-level—and the want of capital, mining has not progressed as it should have done. Four claims were worked, viz., the Pioneer, Enterprise, Sydney Claim, and the Prospectors (Higgins and Party). The quantity of stone raised was 1,439 tons, which yielded 1,339 oz., valued at £4,500. In 1895 the yield was 1,603 oz., and, in 1896, 2,255 tons were treated for 1,820 oz. The yield for 1897 is 266 oz. less than 1895, and 383 oz. less than 1896. Fifty miners were employed. Six gold-mining leases were applied for, embracing an area of 36 acres 1 rood 10 perches. The machinery (a 10-head battery) is valued at £500. A small cyanide plant is being erected to treat tailings. It is considered that no great improvement will take place until outside capital comes in. The Enterprise and Pioneer Claims have always paid fair returns.

Wyalong and Wyalong West Divisions.

It is impossible to separate Wyalong and Wyalong West Divisions, and, therefore, they are dealt with as one. The yield of gold for Wyalong has been as follows:—

1894—9,649 oz., valued at.....	£35,946.
1895—21,497 oz. ,,	£91,863.
1896—33,495 oz. ,,	£130,000.
1897—34,370 oz. ,,	£137,480.

The exact total yield of gold cannot be obtained, as a great quantity goes away privately, and the Cyanide Works do not give the exact returns for private reasons, and a great quantity of gold has been taken direct to Melbourne, chiefly by the Messrs. Neeld and Duncan Brothers. The reason assigned is, that a better price is obtained and that the charges at the Mint are lighter.

It will be seen that 30,750 tons were treated for 23,900 oz., and in addition to this 4,000 tons of mullock yielded 470 oz. So that the yield for the whole field, without the mullock, was over 1 oz. per ton. This may be considered a highly satisfactory result. The table given later on shows splendid yields in many cases.

Two thousand one hundred miners were employed, being 261 less than the year 1896. This can be accounted for by the number of leases applied for and upon which no labour was employed pending the issue of the leases, and, in some cases, through work having ceased through want of capital to procure machinery and appliances to work in an efficient manner.

The value of the machinery upon the field is about £80,000. The population is 4,200, being about the same as in the year 1896.

The work done by the local batteries and works is as follows —

Name.	Kind of Works	Tons Treated	Yield		
Nicholls and Reymond	Battery	5,555	oz	dwt	gr
Gough's	"	3,996	5,971	0	0
Cox's	Mill	1,834	3,273	0	0
West's	Battery	341	1,792	0	0
Neeld's	Chlorination works	1,600	192	0	0
Duncan Brothers	Cyanide works	8,550	4,970	0	0
Channon's	"	5,530	5,110	0	0
Sully's	Chlorination and cyanide works	800	3,140	0	0
			5,000	0	0

* Quartz only, tailings not included but estimated in total, 5,000 oz includes gold from tailings

Deeble Brothers works are not yet completed

Ore has been treated away from the field at the following places —Dapto, Ballarat, Clyde, Cockle Creek, Wallaroo, and Footscray

Sulphide ore exists at a depth, and some from Bolte's Claim (now called the Lucknow) yielded 22 oz per ton. This claim is now down 300 feet in the solid granite and the reef is over 3 feet wide, and 10 tons treated yielded as before stated.

Before long the works upon the field will treat all the ore raised. The price no doubt will be reduced

The following table shows some particulars of some of the principal mines —

Name	Depth	Deepest Level	Ore Raised	Yield
	feet	feet	tons	oz
Cuirajong	280	225	1 200	1,452
True Blue	260	260	354	376
Klink's	210	200	275	1,877
Bolte's	304	304	324	1,275
Shamrock and Thistle	235	235	492	2,406
Harry's Find	150	150	299	436
Neeld's	200	200	Not obtainable	
White Reef	327		980	1,264
Junction	354	354	409	919
Perseverance	295		418	1,134
Bantam	280		112	253
Golden Fleece	218	218	532	668
Waratah	215	210	124	436
Mallee Bull	350	350	85	114
Great Britain	210	240 (underlay)	28	62
Lighthouse	504	490	No reef yet.	
Princess	380	360	316	742
United Anglo Australian	270	180	No crushing yet.	
Christmas Gift (Block)	275	275	46	73
Klondyke	260	160	263	432
Christmas Gift	210	150	259	374
Victoria	185	175	201	196
Great Northern Pioneer	180	180	32	88
Coming Event	140	120	8	17
Gibbens and Party	90	40	42	45
Bank of England	125	120	7	6
Australian Star	110	100	25	120
Miner's Right	100	90	99	67
Doyle and Party	153	150	30	25
Santa Claus	128	128	115	213
Pooley and Party	200	180	98	151

The yields at the Shamrock and Thistle and True Blue are exclusive of tailings and concentrates. The Shamrock and Thistle received £700 for their tailings and concentrates

The Daisy is down 335 feet and has had a few small crushings

The Barrier is down 254 feet, but work has been at a stand-still owing to a dispute among the shareholders

The Lighthouse is down 504 feet and is now cross cutting at 490 feet, and is in 23 feet in a W S W. direction. It is expected that the reef will soon be struck and appearances point that way. Good work has been done upon this mine, which received aid from the Prospecting Vote to test the reef to a greater depth than hitherto reached on the field

During the year the Prince of Wales was sold to the Australian Exploration Company at a good figure, and the Company took up adjoining ground. This Company has erected a most complete plant at great expense. A good mineralised reef has been struck in No 1 shaft, but none of it has yet been treated, but ore is being raised and bagged for treatment. Twenty four men were employed and more will be put on

The True Blue has been lately keeping 10 stampers constantly going. The reef is from 4 to 5 feet wide at the 200 feet level. Besides this stone is being kept for chlorination

The Called Back Mines are to be worked again, and one lease has been purchased by a Melbourne syndicate.

The Pine Ridge promises to improve and present indications are favourable

Work is being carried on in the vicinity of Bartley's with fair prospects

About twelve to fifteen mines have been fossicking for alluvial at Billy's Lockout, but the dry season has been a great drawback

A party is prospecting upon East Bland Station with fair prospects

The prospectors are still at work at Mount Monai. Two or three parties have been prospecting at Buddigowca

A great deal of dead work has been done upon many mines at great expense, which will tend to increase the output for 1898. Although the number of miners employed was less than the previous year, more experienced and practical men were employed and several experienced managers were brought to the field. The work taken as a whole has been more legitimate and efficient, and will lead to the mines being properly and expeditiously worked. Taking everything into consideration the returns and state of the field is satisfactory. The yield is the result of about 100 claims. It has now been proved beyond doubt that the reefs go down and return their richness, and that the field has been proved to be permanent.

The reduction of the labour conditions has had a good effect and will be the means of causing 1898 to be the most prosperous year for Wj along since its discovery. Capital has already been invested.

Yalgogrin Division.

The yield of gold for the year was 1,631 oz., from 539 tons, being slightly over 3 oz. per ton, and was valued at £5,872. The yields for previous years were —1894, 348 oz.; 1895, 804 oz.; 1896, 1,250 oz. Therefore, the yield for 1897 exceeds that for 1896 by 381 oz. Sixteen claims are upon gold. The

Ten gold-mining leases for Crown lands, comprising an area of 63 acres, and thirteen applications for gold leases under the Mining upon Private Lands Act, comprising 141 acres, were applied for. There were about 200 miners on the field.

A number of authorities to enter under the Mining Laws Amendment Act were granted, and some were converted into leases. Barnett and Gough completed the erection of their ten-head battery, and it was at work for nearly three months. This was a great boon to the field. Duncan Brothers have commenced to erect a cyanide plant, and have purchased a quantity of tailings ready for treatment. These works will be a great advantage, as all tailings will be treated upon the field. The ore being mineralised, the tailings will pay for treatment, and this will increase the profits of the mines.

The following list gives some particulars of some of the claims:—

Name.	Depth.	Deepest Level.	Ore raised.	Yield.
	feet.	feet.	tons.	oz.
Great Central	140	90	6	18
Great Eastern	90	90	17	58
Mosgiel Syndicate	238	150	20	108
Democrat	170	123	9	23
Black Coon	108	100	202	508
Piccaninny	145	116	98	535
Day Dawn	100	100	2½	9
Mount Allan	30	30	28	28
Eureka	170	110	60	135
Shelly and Party	112	100	90	200

The width of reefs varies from 4 inches to 2 feet.

The machinery is valued at £700, and a much larger yield for 1898 is anticipated.

During the latter part of the year outside capital has been invested. Capital has been put into the Birthday Syndicate at Waldron's conditional purchase, and if this syndicate is successful a great impetus will be given to mining in this Division.

The surrounding country is auriferous, and there is every appearance that Yalgogrin will become a large and prosperous field. The town has been greatly improved during the year by the erection of buildings, &c., and this shows the confidence of the residents as to the permanency of the field.

Young Division.

In this Division mining operations for several years past have presented a singular uniformity. With the exception of the work which is being carried on, under the Mining on Private Lands Acts, no new feature has appeared. The year 1897 will long be remembered in the district, as being one of the driest years of which the inhabitants have had any experience. Mining operations have been much retarded in consequence, and the sluicing claims which yielded fairly well in more favourable seasons, have scarcely done anything. Operations are being chiefly confined to alluvial, little being done in quartz. The South Burrangong Mine, which in former years yielded considerable quantities of the precious metal, ceased operations, and shut down, it would appear finally, having removed or sold their plant and machinery. Good results are expected to accrue from the Day Dawn, a quartz mine situated about 6 or 7 miles from here at Stoney Creek, and owned by a local syndicate. The owners are receiving aid from the Prospecting Vote, and are carrying on operations with some vigor. The stone appears to get more promising as they go down, and it is intended soon to send some tons for treatment at Dapto. Sanguine expectations are entertained as to the result. Clifton and Party, who are carrying on operations about a mile from here, are also receiving aid from the Prospecting Vote. The reef is small, about 3 inches. The locality in which it has been found, has in years gone by, yielded considerable quantities of gold. It is intended soon to subject a parcel of the stone to a proper test. No reports have been received of any rushes for the year, nothing sensational in that way having occurred.

As far as can be ascertained 2,134 ounces of gold have been won in the Division of the value of £8,376. This shows a considerable falling off, which I am inclined to attribute almost wholly, to work at the sluicing claims having been suspended during the greater part of the year. It is estimated that probably 200 professional miners find employment mining and fossicking in the Division.

TUMUT AND ADELONG MINING DISTRICT.

Albury Division.

The output of gold in this Division shows a decrease of 236 ozs. on that of the previous year. It principally includes quartz-mining at Black Range, Cumberoona, and Stony Park; the yield being a little over 800 oz. from 1,017 tons of stone.

Application has been lodged for a large area of land near the Black Range, and a syndicate is being formed for the purpose of testing the locality for a deep lead which is supposed to exist there.

Briese's Paddock, situated between Albury and Jindera, and which was originally held under conditional lease, has been brought under the provisions of the Mining on Private Property Act, and there are now on it two claims, which are being worked with some degree of success.

About 150 men are engaged in mining throughout this Division.

Walbundrie Division.

Within this Division only three leases under the Mining on Private Property Act are being worked, viz., the Lone Hand, the Welcome Find, and the Goodwood, at Bulgandra, employing in all about twelve men, as against about 50 who were working at the commencement of 1897. About 300 tons of stone have been crushed during the year for a yield of about 270 oz. of gold.

Germanton Division.

Mining has practically ceased in this Division, and the returns are nil.

Corowa Division.

The only mining carried out in this Division is that done by the Corowa Deep Lead Company, who, on the strength of the results of boring operations on private lands in the vicinity of Corowa, has erected a very extensive plant, costing something like £7,400, with a view of sinking shafts to test the value and extent of the underlying deep leads. A portion of the Prospecting Vote is being applied to assist in this work.

The provisions of the Mining on Private Property Act, by which miners can obtain permits to mine upon private lands by paying rent and compensation to the owner, has only been availed of to a small extent, and so far practically without result.

Adelong Division.

The importance of the Adelong field as a gold producing centre is becoming apparent, and the bright anticipations of last year have been fully realised. The following figures will show the increase in the output within the past few years:—

1895	3,923 oz.
1896	2,754 oz.
1897	19,690 oz.

The

The extensive operations of the Gibraltar Consolidated Gold-mine (Limited) are responsible for this very gratifying increase. The following facts and figures will give some idea of the magnitude of the mining operations of this Company. There is nothing in the past history of this Division approaching them, and the Company may be congratulated on the very complete and modern plant they have erected to treat the body of ore at their disposal, a description of which may prove interesting—the estimated value of which is £60,000.—30-head stamp battery, 12 free vanners, chlorination works for treating 100 tons of concentrates per month, cyanide works to treat 1,400 tons of tailings per month, air compressors capable of operating 20 rock drills, 4 shafts equipped with hoisting machinery driven by steam, 2-140-horsepower Lefell turbines for water to operate air compressors and battery, also auxiliary steam power plant for same, shafts connected with the battery by two self-acting incline tramways, water race for water power 3 miles in length. The development work is as follows:—Radcliffe shaft, down 467 feet has reef opened for a length of 700 feet on levels connected with crosscut 200 feet in length, with Calico reef running parallel with same; O'Brien's shaft, 360 feet, opened on 350 feet level for 100 feet in length; Perkins' shaft, 270 feet, opened for a length of 300 feet on the 170 feet level, connected by means of crosscut 140 feet in length, with Chinaman reef running parallel with same; crosscut on the 270 feet level has now struck Chinaman's reef, therefore the workings are on five distinct reefs. Deepest level—Radcliff's, 455 feet; width of lode or vein, average 18 inches; dip or underlay, average 12°; bearing or strike, North 35° East. The number of men employed averages about 350. The number of tons crushed was 10,271, which yielded 18,416 oz. of gold. This does not include the yield from concentrates and tailings.

The Proprietary Gold-mining Company's mine under tribute contracts crushed 113 tons yielding 106 oz. The depth of the shaft is 570 feet and the deepest level at 540 feet.

The Caledonia old line of reef which lay dormant for upwards of twenty years was taken up as a local undertaking in May, 1896. The depth of the shaft is 300 feet, and deepest level 298 feet. Prospecting aid was granted for sinking from depth 228 feet. 34 tons were treated at the battery yielding 59 oz., value £236 6s. As this line is in a direct course between the Old Hill and Proprietary Mines it is claimed to be a continuation cropping out originally in a small rich shoot. This mine is only in its infancy, with capital (all indications of stability being present) it will form another producing medium for this field.

The Lady Mary crushed 527½ tons for 275 oz. 2 dwt. 18 gr. (value £1,018), and concentrates treated, value £142. The depth of the shaft is 574 feet and deepest level 540 feet. This company's property is now worked by tributors.

Another local undertaking which bids fairly well at present is the old Challenger mine. The operations are directed to the extreme north of the old outcrop. A winding engine and all other appliances are in evidence. After bailing out the old workings, the sinking of the shaft has been started on a small vein showings pyrites and gold.

The Kurrajong Company's mine is now in the hands of a party of tributors.

The old Victoria mine, now lying idle under suspension, is reported as likely to make a fresh start. Capital will be required to insure success in ground already worked to a depth of 1,000 feet.

The falling off in the yield of alluvial gold, when compared with the yield for 1896, may be attributed to the ceasing of work in Shepard's lease and the small yields from the Bardwell's freehold. The Adelong Creek below Shepard's is looked after with a keenness to assure other projects for 1898.

Balallow Division.

The mines in this Division have had another very unfavourable year to contend against, the rainfall being about 14 inches below the average. This has greatly interfered with sluicing operations, and nearly all the claims have suspended work.

Measures have been taken to develop the reefs at Paddy's River, about 16 miles south of Balallow township. A quartz battery of six heads is now being erected. There are a great many reefs in the vicinity, and should they prove payable a number of men will find employment.

It is estimated that the quantity of gold won during the year is 1,000 oz., or 350 oz. less than the quantity won during 1896.

Tumbarumba Division.

This Division also shows a decrease in its gold output, the figures being 2,700 oz. for the year, as compared with 3,021 oz. in 1896.

The reduction is directly traceable to the exceptionally dry season, when all mining operations were to a great extent in a state of stagnation for the whole year, this being especially noticeable during the latter half of the year.

For this reason, and also the fact that the alluvial workings are practically all upon old ground, the year has been, as regards alluvial mining, dull and uneventful; and apparently the only change at all probable during the year 1898 will be caused by the introduction of new and more powerful pumping machinery. This new machinery is now in course of erection, and will be first used at the ground held by the Tumbarumba Flat Sluicing Company.

There were no rich finds of alluvial deposits made during the year, and practically no new ground was opened up.

The alluvial workings throughout the division are all shallow, and are worked, in nearly every instance, by sluicing.

There are no good alluvial claims being worked upon any private lands.

The year has also been an uneventful one as regards quartz-mining, the lack of water having retarded progress upon many of the claims held, and several applications for suspension of the labour conditions have for this reason been made.

A great drawback to this branch of the mining industry undoubtedly has been the difficulty of getting the stone properly treated, there having been up to the present no efficient battery working in that part of the Division where it is most required for the purpose of testing stone. This impediment will, however, be to a considerable extent removed during the year 1898.

A great number of the quartz reefs give upon assay most favourable results, and many of them, so far as they have been proved, give every indication of containing large bodies of payable stone; therefore, during the coming year, great improvement may be justly anticipated, and the amount of gold won will be largely increased.

In other years, when there has been a larger rainfall, the large amount of water met with has been a great obstacle to the testing of many of the quartz reefs, and it is to be regretted that the opportunities offered by the past dry year were not availed of by those who ostensibly wish to test their ground by sinking.

A marked feature in this Division is the small number of Chinese working on the fields, there being only two in the entire Division.

Narrandera Division.

During the year 1897 the progress of mining in this Division has been much retarded owing to the great scarcity of water, and to the non-existence (locally) of a stamper battery or other machinery for the effective treatment of the ore raised—at present there are some seven mines being worked, but during the year there were fully ten parties at work on various parts of the field.

At Junece Reefs, altogether some 600 tons were raised during the year, but of this quantity only about 96 tons were treated, for a return of 70 oz., valued at £270 approximate.

The bulk of the stone has been raised at the Dusthole and Doctor's Reefs properties, but none of this stone has yet been treated. The proprietors apparently being anxious to pass the prospecting stage before commencing crushing operations. The majority of these mines are being worked by poor parties on a small scale, and the country being extremely hard, necessitating the constant use of explosives, progress is consequently very slow. The deepest shaft on this field has been sunk to a depth of 250 feet on the Dusthole Reef.

At the Rockdale mine a band of blue and green carbonate of copper ore assaying 24.96 per cent. of metallic copper, and over 6 oz. silver, was met with at a depth of 70 feet, while sinking on the reef. From this mine samples of stone treated at the Mines Department, Sydney, at Wyalong, Footscray, and Ballarat have assayed from 3 to 7 oz. gold per ton. Prospecting work is now being vigorously proceeded with at the 100-ft. level. From 30 to 40 tons of stone from this level and from the main shaft are now at grass awaiting special treatment, as an ordinary stamper cannot treat the ore efficiently. At the Eurongilly Field during the latter part of the year a number of strangers have been prospecting in alluvial ground, but owing to it being so soon after the miners' Christmas holidays, it was impossible to find any of them on the field to get authentic information. The principal mine at Eurongilly is the Pioneer Gold-mining Company. The main shaft has been continued from 225 feet to 297 feet, and at 265 feet a level 3 ft. x 6 ft. has been put in along the reef N.W. for 50 feet, and also a crosscut westerly 15 feet. The country gone through is blue slate, exceedingly hard, every bit having to be shot

shot out. At 250 feet a "horse" composed of a kind of diorite very hard comes in and takes the place of most of the reefs, then about 1½ feet wide, which was pushed over to the hanging wall. The reef has since varied from 10 inches to 1 inch at present on hanging wall at 297 feet, the lowest depth sunk.

Notwithstanding the intrusion of the "horse" the channel has remained intact, the walls being well defined, smooth, and solid being between 5 feet and 6 feet apart. At 265 feet the quartz is in each wall with the "horse" between, but from this point the foot-wall has been undisturbed, as I understand the party intend going on with 50 feet of sinking authorised by the Prospecting Board, and following down the quartz vein on the hanging wall. In some parts of the reef passed through in sinking, specimens have been obtained ranging as high as 2 oz. 19 dwt. per ton, but there is very little stone of this description. The intrusion of the "horse" has upset all calculations, and having to penetrate it from 250 to 297 feet, it will be easily understood that very little quartz has been taken out when the reef is but a few inches wide. There are signs, however, of a new make of stone, and it is hoped that in a few feet the disturbing elements will disappear, and a payable reef be brought to light, which will justify the great expenditure incurred. When 11 feet more have been sunk the shaft will be completed to its authorised depth, and then it is intended that a drive of 50 feet along the reef should be made, as was done at the 265-foot level. Another reef has been discovered on this property to the east of the old workings, and a shaft has been sunk to a depth of 15 feet. The stone carries a little gold, and it is intended to have a trial crushing of 3 tons when opportunity offers, but like the Junee Reefs Gold-field there is no battery available in the neighbourhood at the present time. This same reef was very rich on the surface, a crushing of 2 tons yielding as much as 50 oz. gold, but before the time of the present holders, who are endeavouring by prospecting to find out whether there is anything of a similar nature below the old workings. There is a party of alluvial miners adjoining the Pioneer Reef at present getting 4 dwt. to the load.

Cooma Division.

Partly owing to the liberal conditions of the Mining Act Amendment Act of 1896, and to the fact that reef gold has been found near Cooma, there was an unprecedented demand for miners' rights during 1897:—

Issued during 1897—Miners' Rights	350
„ Business Licenses	3
„ Mineral Licenses.....	2

Twenty-three applications for gold-mining leases were received, comprising an area of 144½ acres: Of these, 3 were situated at MacAnnally, 5 at Colinton, 3 at Cowra Creek, and 12 at Bushy Hill, near Cooma.

The find at Bushy Hill caused considerable excitement, being about 2 miles distant from the town, and fairly rich. A trial crushing of 4 tons, from Solomon and Party's ground, yielded 13 oz. 4 dwt. 22 gr. of gold per ton (exclusive of what might be in the tailings). The country is considerably broken, and the gold is found with felsite.

The deepest shaft at Bushy Hill is down about 38 feet, and it remains to be seen whether the lode continues.

Under the Mining on Private Lands Act, 12 applications were lodged to mine for gold by owners and parties to agreement. The work has, however, practically ceased for the present, the results not being very satisfactory, although rich quartz was found on and near the surface.

Very little alluvial digging is done in this division. Most of the alluvial gold is obtained from river beds and banks about Numeralla, and is the result of fossicking rather than organised work.

The quantity of alluvial gold won, about 308 oz., valued at about £1,125, as against 603 oz. last year; and of quartz gold, 1,374½ oz., valued at about £1,950, being an increase of 295 oz., as compared with 1896.

At Colinton, the quartz fissures are 2 feet and more wide, underlying west and bearing north and south. The returns are about an ounce to the ton.

The depth of the deepest shaft is 360 feet, and of deepest level, 295 feet (a tunnel).

In the Cooma Proprietary Gold-mine, at Colinton, there are alluvial deposits, besides the quartz reef, which will pay well for sluicing, but a large capital is required.

At the Colinton Gold-mines Company, there is a battery of 5 head of stamps, and 10 head are in course of erection; also, winding and pumping plant for 800 feet. The value of the plant is about £750.

Cowra Creek, which includes MacAnnally and Fiery Creek. These reefs are not rich, yielding about ½ oz. to the ton; but the country is not difficult to work. The reefs vary in width from 6 inches to 2 feet 6 inches. The underlay is to the east and the bearing north and south. In this locality the deepest shaft is 107 feet.

At Cowra Creek there are 4 batteries, viz., (1) Murray's, 5 head stamps, water-power; (2) Sands', 13 head, steam; (3) Leurs and Party, 5 head, steam; (4) Williams, 10 head, with two Berdan pans. At MacAnnally, a battery, 8 head, steam-power, is in course of erection by A. Reed. At Fiery Creek, Rheinberger and another own a battery, 4 head, steam.

All these batteries were erected by the proprietors to crush their own stone, but they are also availed of by other parties, the charge for crushing being 10s. a ton.

Near Cooma the work is only in the preliminary stage.

As nearly as can be ascertained, the number of gold-miners employed in this Division is 179, viz., 21 on alluvial and 158 on reefs, all Europeans.

Silver.—A company, at Dartmoor, near Cooma, is being formed, and, when floated, work will commence. So far, only trial shafts have been sunk.

Kiandra Division.

There were 1,200 oz. 11 dwt. 17 gr. of gold won in this Division during the year, valued at £4,622 5s., which is an increase of 423 oz. 11 dwt. 11 gr. on the yield of last year. The New Chum Hill Hydraulic sluicing claim is being worked with eight men, with payable results. The Giandarra Gold-mine during the year has been proved payable, and a large reservoir is being erected and water races cut, so that the work may be carried on in a more extensive scale. The Empress Gold-mine at the Nine-mile, owned by J. M. Lett, has a tunnel 1,100 feet long; he rose 36 feet and struck the wash, but such a large quantity of water is coming through the wash that he has temporarily abandoned the work, but intends to put in a shorter tunnel on a level with the wash. Assistance is being granted to Eastwood and Party from the Prospecting Vote, to drive a tunnel into Surface Hill, to cut their large reef at a low level, which they expect to do in four weeks. Schaefer and Party are receiving aid to drive on their reef on the Eight-mile Ridge, they are down 47 feet, and the reef is 3 feet wide, a trial crushing from which yielded 7 dwt. per ton. Johnson and Rowe, at the Boogong, who were granted aid to drive a tunnel 365 feet, have struck the reef at a depth of 120 feet from the surface; they have driven 35 feet north and 60 feet south; the reef is 2 feet wide at north end, and 5 feet at south end, and a trial crushing sent to Dapto yielded 15 dwt. per ton. This party has also another reef 3 feet wide, 701 feet lower down the hill, and have sunk a shaft 30 feet, and driven 15 feet south and 20 feet north. This reef yields better gold than the top one. They propose putting in a tunnel 1,400 feet long, to cut both reefs at a low level, and are now erecting two Huntington mills, which will be worked by water power; they have 38 acres of gold leases, and have twenty men employed, but expect to have fifty men at work in three months time. There are over 200 men employed in this division, and the fossickers on the Tumut and Murrumbidgee Rivers are doing well. During the year there were eleven gold leases applied for, covering an area of 84 acres, and two mineral leases of 40 acres each. This division has not looked so prosperous for some years.

Jindabyne Division.

This is another new Division formed during the year. Mining matters are, however, progressing very slowly, and it is questionable if the miners are making more than low wages. Operations are confined to the alluvial ground, from which 3,750 loads of wash dirt were treated for 333 oz. of gold, valued at £1,250. No new finds reported during the year.

Captain's Flat Division.

Captain's Flat has been the scene of great activity during 1897. The Lake George Mines United have erected new stacks, flues, and furnaces; a tram line has been constructed, powerful pumping and winding machinery purchased, and the property fitted up with electric light at a cost of upwards of £60,000, but unfortunately the construction of the water, jackets being faulty, work had to be suspended from time to time, and ultimately fresh jackets obtained. Consequently, with the exception of one month, work has been intermittent. The quantity of ore treated has been 25,000 tons, producing matte of the value of £33,033. When work is in proper swing the manager expects to treat 2,000 tons weekly. The Directors are so satisfied that the mine can be profitably worked on a large scale that additional furnaces are shortly to be erected. The deepest shaft (Powell's) is 595 feet, and the lowest level 500 feet, the lode at this depth being 30 feet wide. The

The Lake George Proprietary has been recently floated, and adjoins the leases of the Lake George Mines on the north-west. Two shafts, 60 feet and 100 feet, have been sunk, and the management appear satisfied with their prospects. Another recently-floated company, the Lake George North, has a shaft down 80 feet, but as yet have not proved the value of the lode, which is 30 feet wide on the surface. The present population of Captain's Flat is about 1,700, and this number will be largely increased if the contemplated works are carried out. The effect of the drought is now showing itself, and the Molongo River has virtually stopped running, and the question of a water supply will now involve a scheme of water conservation. There are, however, a number of good permanent springs in the immediate vicinity that are fully sufficient to meet the present requirements.

Bungendore Division.

Mining matters in the Bungendore Division are in a very languishing condition. Bywong is almost deserted, and with the exception of the Lone Hand Claim, the same might be said of Mac's Reef. This claim gives the best returns in this Division, namely, 48 tons for 50 oz., but there must be something wrong when it takes twelve months to raise 48 tons of stone. The fact that the only four batteries in the district being for a long time idle for want of water is sufficient to account to a very great extent for the decline in the mining industry in this Division.

Gundaroo Division.

Mining matters in this Division have been very quiet during the year. There are only five claims on gold, and they do not produce the metal in anything like payable quantities. T. Alchin, "Sterling Star," Dairy Creek, treated 30 tons for 10 oz. The owner of this claim is at present receiving aid from the Prospecting Vote.

Thomas Booth's "Lady Ida," Dairy Creek, treated 10 tons for a yield of 16½ oz.

Kershaw and Co., "Who'd a Thought it," Dairy Creek, crushed 7 tons, yielding 6 oz.

Ward and Co., Dairy Creek, crushed 6 tons for 16 oz. 3 dwt.

P. Cassidy's gold lease, Dairy Creek, treated 8 tons for 13 oz. 16 dwt.

The alluvial gold purchased locally amounted in the aggregate to 48 oz. 2 dwt., valued at £192 8s. This gold is won principally by fossickers on Brook's Creek.

The "Sleeping Beauty," situated about 4 miles west of Gundaroo, after laying idle for over twelve months, has been taken up by a local company, also a claim on the south of it, but up to the present the work done on both properties has been confined to surface prospecting.

Notwithstanding the fact that a great deal of prospecting has been done during the year at Dairy and Brook's Creeks, very little good has resulted therefrom.

There is a marked decrease in the returns of gold won during 1897, as compared with the previous year; the yield for 1897 being 111 oz. 11 dwt., as against 195 oz. for 1896.

Four applications have been received during the year for gold-mining leases on private land.

Two applications for suspension of the labour conditions were the only matters dealt with by the Warden's Court during the year.

Queanbeyan Division.

The valuable discoveries of the year in the Queanbeyan Division are in the north-western portion lately transferred to the Yass Mining District. The valley property, 2 miles from Queanbeyan, has been opened out, and a quantity of ore sent to the Cockle Creek Works proved to be valuable as a flux. At Mount Blundell £600 has been expended in development, and efforts are now being made to procure machinery to treat the ore locally.

Prospecting operations for copper are now being actively carried out at Paddy's River, and fair prospects obtained. The money is found by a Melbourne syndicate, who appear to have every confidence in their ultimate success.

At Hall work has ceased and, the ground deserted. The locality is well worth a further trial, and will, probably, be again prospected when the ground is available.

At Cowhill a shaft has been sunk some 80 feet on the underlay, and the reef continues about the same width, from 8 to 10 inches. The stone looks promising, but shows no gold to the naked eye. Twenty tons sent to Sydney for treatment yielded something under ½ oz. per ton.

The Gooda Creek Mine is still actively worked; five shafts have been sunk 80, 30, 25, 60, and 30 feet respectively, and are all on gold. The following are the crushings for 1897:—

Treated at Clyde:—

2 tons, yielding.....	44 oz.
6 " "	66 "
10 " "	105 "
5 " seconds, yielding	27½ "

Treated at Dapto:—

9 tons, yielding.....	51½ "
21 " mixed, yielding	73½ "
8 " "	36 "
8 " "	24 "
8 " yielding	128 "
7 " seconds, yielding	9 "
84 " yielding	6 oz. 14 dwt. 10 grs. per ton.

This has proved a valuable property, and although the country is very hard and the miners young farmers, without previous experience, good work has been done; and it is a pity that adjoining properties have not been more faithfully worked. Some rich finds were made by James Remington and Butts, Crocker, and Party during the year. James Remington is one of the old school of miners, and has had much practical experience both in New South Wales, Victoria, and Western Australia. He is now upwards of 70 years of age, and while prospecting at Nanima he was camped at Gooda Creek, 6 miles distant, and walked to and from his work daily. The first crushing was loam and rubble from the surface; 10½ tons giving a return of 22 oz. 5 dwt. A second crushing, 7½ tons of picked stone, returned 139 oz., or 18½ oz. per ton. The shaft is now 150 feet on the underlay, and the vein looks as rich as ever. There are about 150 tons of mixed stone on the surface awaiting treatment.

Butt, Crocker, and Party's ground is about half a mile to the south-east of Remington's, and, although in a different line of country, the formation is very similar. From this claim a crushing of something under 9 tons gave a return of 273 oz. 5 dwt. 21 grains, while the tailings assayed 7 oz., and were ultimately sold for £20 per ton for 5 tons. A second crushing of 5 tons of seconds, being the whole width of the shaft (5 feet) after the vein had been taken away, returned 7 oz. 12 dwt. The main shaft is down 50 feet, and a second shaft, some 40 feet distant, 20 feet, both on good gold. They have some 200 tons at grass. This party, in conjunction with Mr. Trig, of Yass, have erected a 5-head battery with all the latest improvements, but when everything was ready for a start the water failed. Efforts were made to obtain a supply by means of sinking and driving, but with only partial success. Several of the reefs at the back of the old Nanima Homestead were again applied for, but the battery being unable to crush has been a great blow to the field, as few of the miners can afford to wait for any length of time.

A valuable report on this field, by Mr. Geological-Surveyor Watt, will be found attached to the report of the Government Geologist in this volume.

Tooma Division.

This is a new Division of the Tumut and Adelong Mining District, proclaimed during the year.

There are employed 50 alluvial and 30 quartz miners. Quantity of gold won during the year, about 800 oz.; value, £2,400.

There has so far been no return from quartz-mining of a payable nature. The Bogong Reefing Co.'s claim being now put back in Kiandra Division through an alteration in the boundary, thus leaving this Division with a very small amount of reefing going on.

Toolong Creek, from which place most of the alluvial gold has been won, is now almost worked out, many miners not earning enough to pay for food.

Kanchoban Creek, from which good results were expected last year, was almost a complete failure, and is now abandoned.

A good amount of prospecting is being done on small creeks and streams back in the mountains, but with what success is not known.

Prospecting on quartz is being carried on at Toolong. Herman and Party have put in a tunnel 130 feet, and are now seeking State aid.

Bringenbrong Reefs are yet being worked by Schammel and Party without showing any tendency to improve. Mining generally within the Division is very slack, and the number of miners fast decreasing.

THE SOUTHERN MINING DISTRICT.

Braidwood Division.

Mining in the Braidwood Division has been almost wholly confined to the Shoalhaven River and its banks, and owing to the low state of the water fossickers have made good wages in the river-bed.

Jembiacumbene Creek has been almost deserted. Nothing has been done at the claim held by Harmer and Jeffcoat, although the introduction of improved machinery has long been promised.

The Mayflower Gold-mining Company opened up a piece of ground known as "The Willows" near Belle Vue, and obtained fair results; if not payable, gave promise of being so. This land is now being worked by McCarron and Party, who appear confident of success.

The quantity of gold won compares favourably with the previous year, being 920 oz., or an increase of some 145 oz. The men at work number about 50 all told.

Araluen Division.

At Araluen the gold production has been severely affected by the drought, but still the yield, 2,800 oz., as compared with 2,773 oz. in 1896, is most satisfactory when it is taken into consideration the length of time the field has been worked.

The only work on new ground has been at Barratt's Claim, where 74 oz. were taken out of the first cut; but the work is very heavy, there being 40 feet of sand and loam to be removed by horse and dray.

The work now undertaken by the Department in connection with the proposed tail-race through the valley to drain it will prove conclusively the existence or otherwise of the supposed lead at the foot of the ranges on the eastern side of the valley, and also whether gold exists in sufficient quantity to warrant the construction of the race. The work is now being carried on by contract.

Major's Creek Division.

The gold yield from this Division is some 1,600 oz. short of that of 1896. This, however, is easily accounted for by the dying out of the rush at Back Creek, combined with a dry season. Prospects, however, look brighter than for some years past, and there appears a reasonable hope that before long the valuable mines so long idle will once more be at work again. During 1897 700 tons of stone have been crushed for a return of about $\frac{1}{2}$ oz. of free gold per ton; but the return from the pyrites is not yet to hand. The lessees of the Snobs' Reef, having worked out the shute of gold at the 186-foot level, are now preparing to sink their shaft to 250 feet. On Dargin's Reef, which is generally looked on as the mine of the district, work has been recommenced on a small scale. The shaft is 220 feet deep, and the reef at that level is 30 feet in width. Three hundred tons have been recently crushed at the local battery, but the returns are not yet to hand. The pyrites have been sent to Queensland for treatment. Preparations to work Rigby's Reef are now in hand. This is one of the best shows in the district. At Snowball the company formed for the purpose of cutting the big granite bar and working the ground above it having come to grief, their claims were declared abandoned, and the miners obtained possession of the much-coveted ground; but, as anticipated, notwithstanding they had the advantage of the expenditure of £1,500 in constructing a tail-race, no one has been able to make tucker out of the ground, and the miners on the field do not exceed 20.

Some 40 miners are still making fair wages at Back Creek; but the best of the ground has been worked out long since. A large amount of prospecting has been carried on in the locality without success.

Messrs. Roberts and Hassall, as hitherto, have proved themselves true friends to the *bonâ fide* digger, allowing any holder of a miner's right to prospect their land without fee until they remove washdirt, stipulating only that the holes dug be carefully refilled.

Little River Division.

The gold yield at Little River—2,000 oz.—won by the individual miner or small parties of diggers, is very pleasing, and shows what might be accomplished if a supply of water for sluicing purposes was available. The discovery of four nuggets of 45 oz., 10 oz., 7 oz., and 7 oz., respectively, serve to uphold the reputation of the locality as the producer of the heaviest gold in the district. Nothing has been done in quartz-reefing, but there is every probability of the Day Dawn Mine being worked shortly. This should be a good-paying property, and if the venture proves successful it will tend to encourage quartz-mining in the district.

Nerriga Division.

The Nerriga Division is still a greater sufferer from the continued drought, as, with the exception of the Shoalhaven River, the diggers are wholly dependent on water brought on to the ground by means of races. Under these circumstances the gold won, 920 oz., is as much as could be expected. Alluvial wash at a depth of 40 feet was discovered near the Corang River, but, with the exception of the prospectors, no one else has found anything payable. It would, however, be likely to repay further prospecting. The Leech Exploration Syndicate have purchased the leases hitherto worked by Mr. H. I. Gordon, and have also applied for a large area of ground adjoining. They have had the ground and stone thoroughly examined and tested, and appear perfectly satisfied with their prospects, and are now preparing to work the land on an extensive scale. Another company has purchased certain leases held by Mr. Howe at Welcome Reefs, and propose to erect machinery and put on labour in a few weeks, so that there is every appearance that a fair trial of the Nerriga quartz reefs will be made. Efforts are still being made to float several large sluicing companies, but so far without success, the great drawback being the difficulty of obtaining sufficient water at a reasonable cost; but small parties selecting favourable localities have a much better chance of success.

Nowra and Yalwal Divisions.

In the Nowra and Yalwal Mining Divisions of the Southern Mining District there was very little mining work done during the past year beyond prospecting and experimenting with the cyanide process. The results of the treatment of tailings under this process have proved so very satisfactory to all, that arrangements have now been made for the erection of two large plants at Yalwal, on the Homeward Bound and the Pioneer Mines, and it is stated that plants of a similar kind will also be erected on other mining properties during the present year. The Homeward Bound Gold-mining Company have commenced work for the erection of their plant, which, when completed, will be capable of treating the tailings from about 80 tons of ore per day. The Pioneer, who have amalgamated with Hay and Party, also intend to proceed at once to erect the cyanide plant for treating 500 tons of tailings weekly. When these plants are at work, with what are at present on the field, and other such plants which will likely be erected during the present year, the long-felt depression, caused chiefly by litigation for so long a time, will disappear, and the field once more will become active and more prosperous than of late. The results already obtained from cyanide treatment in Yalwal is estimated to average about 1 oz. to the ton. At the Eclipse Cyanide Works 40 tons of tailings treated yielded 63 $\frac{1}{2}$ oz. of gold. Very little has been done in alluvial mining; an estimate of about 50 oz. would be about the amount of gold found. No mining operations of any description have been done at the Nowra Division of the district. 8,470 tons of stone were raised at Yalwal during the past year, yielding 1,156 oz. of gold, of the value of £4,205.

Ulladulla Division.

Very little mining has been done in this Division during the past year. Sinclair and Party were for some time prospecting on private land near Termeil. A shaft was sunk about 40 feet, and some very fair prospects obtained, but owing to the very hard nature of the country and want of capital the shaft was abandoned. Some months afterwards, 5 acres, including this shaft, were applied for by Sinclair under "Authority to enter," M.P.L. Act. The area was defined, inquiry held, and rent and assessment fixed, but the holder of the authority proceeded no further with the matter.

On Hyam's 4-acre lease at Conjola about £50 have been expended in sinking and driving. During the early part of the year a little prospecting was done on the Murramarang Beach, about 18 miles south from Milton, but as far as I can earn very little success was met with. From the sand along this beach some 26 oz. of gold were obtained during 1896.

Nelligen

Nelligen Division.

There has been a slight improvement in mining matters in this Division during the past year. Although there has been a falling off in the amount of gold obtained from quartz, as compared with the previous year, that obtained from alluviums has increased from 20 oz. to 120 oz. for 1897.

At Brimbramalla M'Leod and Party, through aid received from the Prospecting Board, struck a gold-bearing reef averaging about 2½ feet wide. The party erected a five-stamper battery, and have crushed 220 tons for 100 oz., but the party feeling confident that through the pyrites far more gold was lost than saved, have decided to erect a Cyanide plant to treat the tailings.

In Coates' Claim a reef varying from 8 inches to 4½ feet has been struck, and a shaft sunk 45 feet, from which about 40 tons gold-bearing stone have been raised, none of which, however, has yet been crushed, owing to the distance from a battery.

A number of alluvial miners are at work in the division, the majority of whom are making fair wages.

A little excitement was caused a few weeks ago through the reported discovery of a copper lode at the head of Currowan Creek, but the same has been abandoned; very little work, so far, has been done in connection therewith.

There are in this Division a number of gold-bearing reefs that would, I believe, pay well for working if proper crushing appliances were conveniently situated.

Bateman's Bay Division.

The mining industry in this Division is not in such a satisfactory and progressive state as was anticipated at the end of 1896. A fair amount of prospecting has been carried on. The Big Hill Gold-mining Company have disposed of their leases to a company styled the "Bateman's Bay Syndicate," David Bevan, Manager. Eight men are at present employed.

From Fitzgerald's Reef 47 tons of stone returned 50 oz. gold.

From a new reef at Cullendulla, Ryan Brothers had 2 tons 17 cwt. stone treated for a little over 5 oz. On the leases held by the "Dick Consolidated Gold-mining Company" a considerable amount of work has been done, the particulars of which are not available.

Moruya Division.

On 17th December last, the Anglo-Australian Exploration Company (Limited) obtained four months' suspension in connection with their four leases at Sandy Creek, for the purpose of erecting powerful machinery to cope with the water which has now become very troublesome.

Some £3,000 or £4,000 have been expended by the company on these leases. About 600 or 700 feet of sinking and 130 feet driving have been done, all through very hard granite, water having to be contended with from the surface. On the same company's leases at Bimbimie a tunnel has been driven into the hill for about 700 feet, through hard granite rock interspersed with diorite dykes. About 500 feet of sinking have been done on the reef, the deepest shaft being 109 feet through hard granite; the reef runs north and south, dipping west. It is estimated the company have expended about £5,000 on these leases.

Kino and Lewisson, on their 10-acre lease about a mile north from Bimbimie, are sinking two shafts on the reef one being down about 40 feet.

From the Italian Mine at Turlinjah, 7 tons 3 cwt. 3 qr. 16 lb. of stone obtained at the 60-foot level and forwarded by Stratham and Party to the Metallurgical Works, Clyde, for treatment returned 1 oz. 14 dwt. 3 gr. smelted gold.

Johnston, who had this mine on tribute, crushed 240 tons at his own five-head battery, but the result has been unobtainable owing to Johnston having left the district.

Another parcel of stone, 1 ton 3 cwt. 3 qr. 8 lb., taken by Statham from the 25-foot level on the Golden Russel Reef, treated at the Metallurgical Works, Clyde, assayed as follows:—

Gold	1 oz. 10 dwt. 17 gr. per ton.
Silver	7 dwt. 20 gr. per ton.

Stratham is now forwarding to the same works for treatment another parcel of 6 tons from the 30-foot level.

The mineral lease of 20 acres, known as the "Moruya Silver-mine," formerly held by Adams and Upward, was cancelled on the 18th May last owing to violation of the labour conditions, and the land reapplied for on same date by F. H. Guy.

Along the river towards Merricumbene a few miners are at work in the alluvial, just making sufficient to live upon.

A considerable amount of prospecting has been carried on in the Division during the year.

Nerrigundah Division.

Increased activity in mining in this Division may be safely anticipated during the present year. Although it has generally been looked upon as an alluvial field, it will, it is thought, develop into an extensive reefing district.

A considerable amount of genuine prospecting has been carried on during the year, resulting in the discovery of two valuable reefs; one recently discovered by Latty and Party is about 2 feet wide, and has been traced for about 70 yards, gold being obtained in several shafts along the line. The main shaft is down about 15 feet, from which a trial crushing of 11½ tons yielded the very satisfactory amount of 48 oz. 10 dwt. This find is all the more important as no prospecting for reefs has ever been done previously in this locality. In consequence of this find, several leases have been applied for.

The second reef mentioned was quite recently cut by the Bumbo Gold-mining Company at the 130-foot level, while driving a tunnel into the hill. The reef, which is 4 feet wide, it is said looks very rich. None of the stone has yet been raised. The company have a quantity of stone at grass, obtained from other reefs on their leases, which they intend to crush shortly. The company have just completed the erection of a new five-head battery, which is connected with the mine by an aerial tram-line about half a mile in length.

Williams and Party, also of Bumbo, have struck a rich-looking reef, but being unable to get stone to the local battery on account of the very rough, mountainous country surrounding them; they have quite recently despatched 20 tons to the Illawarra works for treatment. On account of the quality of the stone a good return is expected.

Sparrow and Party on their lease at Tinpot have cut a small reef which is estimated to return fully 6 oz. per ton, but owing to the influx of water, which at this locality appears to be very troublesome, suspension has been granted in order to allow the erection of powerful pumping machinery to cope with same.

A few others are quartz-mining with very good prospects. About 120 miners (European and Chinese) are working in the alluvial, the majority of whom are making fair wages.

Wagonga Division.

Considerable activity has been exhibited during the year in prospecting for gold in this Division. Twenty-four "authorities to enter" under the Mining on Private Lands Act were issued, and in the majority of cases leases of the land thus held have been applied for. A number of distinct gold-bearing lodes—some apparently very wide, and traceable for miles—have been discovered running through this land, but whether they will prove payable remains to be seen. Several mining experts of considerable experience have inspected and tested some of these lodes, and in view of their reports the lessees are about proceeding with the erection of extensive gold-saving machinery on the most modern principles. These leases will in all probability afford employment to a large number of men. There is an abundance of splendid timber and water in the locality.

From a lode discovered on Easdown's Lease, near Nooroma, 109 tons gave a return of 122 oz., in the following order, viz. :—

38 tons quartz	Yielded 26 oz. gold.
12 " 	" 72 "
59 " (second)	" 24 "

Two other small lots, totalling about 40 tons, returned a little over ½ oz. per ton. The width of the lode has so far not been ascertained. The crushings have been taken from different portions. In one instance the 59-ton lot was quarried over 9 feet in width. At the deepest level—viz., 44 feet—the lode is all over the shaft; therefore, until driving is commenced, it would be difficult to form any idea as to the extent of the lode at that depth, but it is estimated to be fully 50 feet wide. The character of the lode is felsite, intersected with ironstone and laminated quartz veins. This lode has

been traced and proved to be gold-bearing for over a mile. Quite a stir was caused by this discovery, resulting in a number of leases being applied for. South-west from Easdown's about 2 miles another lode has been opened up by Cotter and Party. This lode is about 18 feet wide, of ironstone formation, from which payable prospects have been obtained. North-east from Easdown's the old Carrington Mine has been retaken, and work resumed. The old shaft has been continued to a depth of 125 feet, and a payable reef 3 feet wide discovered.

Bowen and Party are making arrangements for hydraulic sluicing on a large scale in connection with their alluvial leases at Makin's Creek. They are now erecting a dam, to cost about £500, and intend erecting pumping plant, at an estimated cost of £6,000. They expect to start washing in about three months' time.

C. Cowdroy claims to have discovered a payable reef towards the north-western end of Mount Dromedary. A parcel of 6 tons has been sent to Sydney for treatment.

W. Braithwaite, at Mount Dromedary, has done a lot of dead work. He had 9 tons of ore treated for 16 oz. gold. Parkhill and Party, who have just finished driving, on aid received from the Prospecting Vote, have raised a quantity of stone, none of which has yet been crushed. Judging from appearance, it has much to recommend it.

From Fraser's "Bell of Australia," near Narooma, 73½ tons stone yielded 17½ oz. gold.

Cobargo Division.

There has been no improvement in mining in this Division during the year, fossicking at Montreal being the only place where digging is now carried on. There are about eight miners working there, and a few others working in the old and abandoned ground, but owing to getting nothing payable, mining operations ceased. About 80 oz. of gold approximately were obtained during the year, but it is almost impossible to give the number of loads of dirt washed, the diggers kept no tally of the stuff treated.

Riley Bros.' Claim at Coolagolite has been idle during the year, the result not being up to expectation.

Bega Division.

There is little to report in connection with this Division. A small quantity of gold was found in a reef on portion 45, parish Tanja, county Dampier, by J. Phillips. Twenty tons of quartz were raised for a return of 5 oz. of gold. The work on this portion has since been abandoned. Some ten men have been "fossicking" over an area of about 8 square miles at Tanja, some short distance from the above-mentioned claim, and won about 53 oz. among them. The quantity of the gold is mostly fine, and sold at from £3 16s. 6d. to £3 17s. per oz.

There are no indications at present of an increase in mining in this district. The absence of new finds may be accounted for, partly, by the want of water, the season being an extremely dry one, and the difficulty experienced by miners in obtaining a supply close to localities where a fresh discovery might be made.

Wolumla Division.

In this Division work steadily progresses. Some good returns from small parcels have been received. The Mount Momsen Gold and Silver-mining Syndicate treated 80 tons for 429 oz. of gold and 1,586 oz. of silver; Bradey and White, 18 tons for 53 oz. of gold; the McDonald Proprietary, 23 tons for 130½ oz.; Messrs. Schuback and Party, 19½ tons for 161 oz.; Messrs. Pierce, Cox, and Party, 14 tons for 25 oz.; Messrs. Meaken and Party, 6 tons for 36 oz. gold, and 42 oz. silver, and 4 tons from Murphy's Claim yielded 30 oz. of gold. The miners on this field seem not to have the necessary means to develop their claims to any great extent, hence the successful working of the field is somewhat retarded. The character of the country has not altered, although it has been stated that a defined quartz reef has been discovered in one of the leases. This, however, lacks confirmation. It is strange that there has been no prospecting outside the present holdings; but it is considered that with a little more energy and capital the Wolumla Mines will give exceedingly good returns for some time to come. Mr. Hough of Pambula is about to erect a battery and cyanide plant on the field, and proposes charging at the rate of 25s. per ton. He guarantees 95 per cent. of the gold.

Pambula Division.

Mining in this Division has been quiet during 1897, no fresh discoveries having made of any importance, although a large number of miners have spent much time in prospecting many parts of the Division.

Parish of Yowaka.

The prospecting of cancelled gold lease portions has caused eight applications for gold leases to be made, in the aggregate covering 32 acres; no new ground taken up. The Mount Gahan Company are engaged sinking a deep shaft, and have now reached 450 feet without any encouragement.

The Pambula Mines have spent large sums of money with little success.

The Falkner Company (Limited) (with which are included the Great Victory Gold-mining Company's leases) have been constantly at work, and have raised a large quantity of good ore during the year.

Parishes of Wyndham and Gnupa.

A large amount of work has been done on the mineral leases belonging to the Jingera Mineral Proprietary Company, twenty-five men being employed from expiry of suspension in March until 30th June, since when, eighteen men; 1,430 tons ore raised during year, of which 146 tons have been sold and exported, leaving 1,284 tons added to 780 tons remaining at grass, making present total of 2,064 tons awaiting treatment. Estimated value of bismuth sold and exported, averaging 8½ per cent., £3,100, silver associated with bismuth, £264.

At Scotchie's Creek, upon private lands, eight blocks were marked out to search for gold, upon three blocks gold has been obtained, but whether payable has not been ascertained.

A crushing from Robertson and Donnelly's Gold Lease, Jingera, at a local battery:—

Ore, 36 tons, yielded.....	2 oz. 5 dwt. per ton.
Tailings, 25 tons, yielded	12 dwt. „

Parish of Burragate.

Under agreement with owner (George Keys) Henry Grant and Party are working 6 acres, part of portion 19, and also Morgan and Willilams' 20 acres adjoining. Upon Crown lands several miners are prospecting, without success so far.

From Thomas J. Simpson and Party's prospecting protection area (Crown lands), 3½ tons ore, crushed locally, yielded 18 dwt. gold, and 3 tons tailings treated by cyanide process, 23 dwt.

Parish of Yuglamah.

Mark Southwell and Party have completed sinking under aid. Samples forwarded to Department for assay, 5th July, 1897, yielded:—

Gold	2 oz. 13 dwt. 8 gr. per ton.
Silver	1 oz. 19 dwt. 5 gr. „

Sample sent by Southwell to Newcastle for assay went 6 oz. gold and 7 oz. silver and 3 oz. lead. But Southwell is of opinion that the expense of getting ore to Sydney or Newcastle for treatment would make the ore not payable. About 4 tons at grass. Width of vein, 9 inches; depth of shaft, 72 feet; underlay to the west; bearing north and south.

There are several miners prospecting, and it was thought a silver lode had been discovered. Two 40-acre leases were applied for.

Parish of Nungatta.

Messrs. J. Lawson and G. Strangridge, miners, report 50 tons raised; quantity of gold won 20 oz., valued at £3 10s. per oz.; depth of shaft 80 feet. Messrs. J. and A. Brown report 20 tons raised; quantity of gold won, 20 oz., valued at £3 17s. 6d. per oz. There are several other parties of miners at work in this locality. Brown reports the crushing machine used would not save the gold, and that there are a number of reefs carrying gold from 3 to 10 dwt. per ton, and capital required to sink into the solid.

Parish

Parish of Coolangubra.

Several prospecting areas have been registered, and late in the year 25 acres applied for as gold-mining leases. J. C. Denny and Party report 6½ tons crushed yielded 5½ oz. gold, valued at £22. About a dozen men are prospecting, and it is expected before long this part of the Division will receive more attention from miners generally.

Parish of Howe.

Messrs Jensen and Party, to whom aid was granted in June, 1897, continued their shaft down to 72½ feet, when they discontinued sinking, and mean to tunnel into the hill. They have a small battery, worked by water-wheel, also small cyanide plant, valued at £150. Twenty tons raised, crushed 10 tons, yielding only 1 oz. gold. Depth of shaft, 74 feet; width of lode, 3 feet; underlay to the east.

Delegate Division.

This Division was formed during the year, and embraces part of the Bombala Division. There are about forty Chinese working in different parts, principally on the Craigie River, and they appear to make fair wages. Of course accurate information is very difficult to obtain from Chinese as to what amount of gold they get. Mead and Party, of Brown's Camp, are still working their reef, which averages about 1½ oz. to the ton. They appear to be well satisfied, and intend to continue working. Brown and Party, of the Blue Bell Reef, at Black Jack, are still working, and the last crushing of 15 tons went 3 oz. per ton.

At the end of the year mining was very quiet, owing to the great scarcity of water.

HUNTER AND MACLEAY MINING DISTRICT.

Copeland Division.

The gold yield from this Division totalled 722 oz., or 219 oz. more than the yield for 1896. Although it is satisfactory to be able to report an increase, no matter how slight, still the result of crushings for the year have not come up to anticipation.

The Lady Belmore has been idle in consequence of excess of water, and the party are unable to purchase machinery for pumping and winding.

The Mountain Maid has been worked satisfactorily. The yield per ton from stone crushed was only about ½ oz., but the party made good wages, and were pleased with the result.

The Gloucester River Company crushed about 400 tons, which yielded about 5 dwt. per ton, which is not payable. The company has gone to considerable expense in erecting a crushing plant, which is driven by a Pelton wheel. A little stone has been raised from the Centennial, Sawyer's, Boronel, and Cobark Reefs, but the result has hardly reached expectations. There is no doubt that this field is languishing for want of capital to purchase the necessary machinery to deal with the water.

There are seven or eight old miners fossicking in the creek and gullies, and make a living. The total amount of gold won from alluvial is 197 oz.

It is said that an attempt is to be made to revive the beach mining from Port Stephens in a northerly direction.

Dungog Division.

In the Dungog Division matters have been very quiet. The Wonga Wonga, at Lower Wangat, showed most activity in pushing on work, their only return, however, being about 160 oz. from the Hidden Treasure Reef. The proprietors, however, expect to do a large amount of work during 1898, and if they can obtain the assistance of capital, will develop a large area in Lower Wangat.

At Upper Wangat, the Mountaineer Reef is again being worked, and lower down the hill, the ground formerly abandoned by the Brandon syndicate is opening up good prospects. Whispering Gully, which, two or three years ago, caused a mild sensation, is again being prospected, a small parcel of alluvial being sold in Dungog at £3 10s. per oz. There is evidence of good prospects in the reefs in this gully; but, as a rule, the men working have absolutely no means, and are apparently content to pick here and there at the outcrop, and, by dollying small quantities, eke out a precarious subsistence. It is thought that the advent of capital here would result profitably.

The Monkerai Field is virtually abandoned, except that one small syndicate is doing desultory work for little profit. The gold here is not, in any instance, continuous, but in blows and shoots, and though some good shoots have been discovered, the men appear to lose heart so soon as the vein pinches out.

The Cherry-tree Field, near Dungog, is quite abandoned, and the machinery removed, but it is considered that the ground is by no means worked out.

Some time since, a small reef, returning ½ oz. to the ton, was found in a paddock at one end of the town of Dungog, which appeared to be an offshoot from the Cherry-tree Reef. This was on private land, but, for unexplained reasons, the place has been abandoned.

Kempsey Division.

Practically speaking there appears to be very little *bonâ fide* gold mining in the Kempsey Division, and what there is is at present only of a desultory kind. The mines at Deep Creek have been idle during the whole year, though there is a probability this year of operations being resumed. There has been a little fossicking throughout this Division, but very little gold has been obtained. There has also been a little prospecting on the beaches, but of an unsatisfactory nature.

Taree Division.

There are about thirty miners prospecting for alluvial gold in this division, principally at or about Cell's River (which is situate 55 miles from Taree), the majority of whom are earning small wages. About thirteen others are regularly employed as quartz miners at Cell's Field, where some good stone has been crushed during the year by a water-power battery. This plant is owned by the Deep Valley Gold-mining Company who raised and treated some 600 tons of stone for 300 oz. of gold.

It is stated that there is a certainty of considerable capital being placed on Cell's Field by outside capitalists; consequently a more prosperous report for the year 1898 may be looked for.

PEEL AND URALLA MINING DISTRICT

Glen Innes Division.

The quantity of gold won in this Division during the past twelve months is just about the same as that won in 1896, viz., 565 oz.

Gold Reefing.—With the exception of the Glen Elgin Gold-mining Company very little mining has been done at Glen Elgin. They have several shafts down, averaging a depth of 80 feet, and have tunnelled in various directions for a distance of 665 feet. They have crushed about 130 tons of quartz for 115 oz. of gold. Four other leases on the same line of reef have been applied for, but little or no work has been done by the lessees as yet.

Alluvial gold-mining is confined to Skeleton Creek, Big Flat, Hogan's Creek, and the Mann River. There are about twenty men, obtaining fair results.

Kookabookra Division.

There was little or nothing done in quartz mining in this District during the year. The owners of the Butcher's Gold-mine at Bare Hill put a few tons of quartz through their battery at the end of the year, but were compelled to shut down owing to want of water.

Over 100 miners, Europeans and Chinamen, were employed during the year alluvial sinking on the old Oban Diggings, Paddy's Gully, Mitchell River, and Nowland's Creek, but owing to lack of water only half time was worked. Their earnings would be from 10s. to 15s. a week per man.

The output for the year was 386 oz. of gold, 15 tons of tin, and about 300 oz. of topaz; total value, £1,912 10s. The output of gold for 1896 was 620 oz.

Armida

Armidale Division.

There is a big decrease in the value of the gold won from the mines around Armidale as compared with the output for 1896. For the year 1896 the yield was estimated to be 1,700 oz., but for the year under review the yield may be put down at 486 oz. The exceptionally dry season is responsible for the decrease, the mines being prevented from working more than half time.

There is a report current that a good gold reef is likely to be struck at Puddledock, about 7 miles from Armidale, but no official notice has yet been made in the matter. Several applications have been made on Hillard's private land for authority to search, and it is said a lease will shortly be applied for; but sufficient time has not yet elapsed to try the ground and prove its value. In other respects mining matters have been quiet in this district, beyond applications for authority to search in different parts, but most of them have been abandoned.

Hillgrove Division.

Hillgrove is situated 18 miles east from Armidale, and is a very active mining centre indeed. The gold returns show that during the year the total quantity of stone treated within the division was 26,706 tons, which yielded 21,556 oz., valued at £77,747. These figures do not, of course, include the returns from Metz, late Hillgrove West Division, which are given separately. The total output from the field, including Metz, is 31,886 oz., valued at £114,656, or a decrease of 5,966 oz. on the previous year.

Baker's Creek Gold-mining Company is still the premier mine of the district, and crushed during the year 13,552 tons, including concentrates, for 13,052 oz. 11 dwt., worth £46,504, being 502 oz. in excess of last year.

The sum of £15,000 was paid in dividends, being £5,000 more than the previous year. There are two stamper batteries going, one of 40-head and the other 20 head. The main shaft has been sunk to 900 feet, and they are now driving for the reef at this level. At No. 11 level a new development has recently taken place in the shape of a well-defined reef which was not met with in the upper levels. On the whole the mine looks well, and should be a good producer for many years to come.

The Eleanora Gold and Antimony Mining Company kept 30 head of stampers at work crushing 12,410 tons for 5,402 oz., and 629 tons concentrates for 2,563 oz., valued in all at £29,363, also 10 tons white metal, valued £200. A large quantity of old tailings have been treated, and return a small profit after paying expenses. The main shaft has been deepened to 610 feet, when sinking was discontinued, and attention paid to the working of the upper levels. This mine paid one dividend during the year amounting to £2,500.

Of late the company has little more than paid expenses, and as the calling power is exhausted it is the intention of the directors to reconstruct and raise fresh capital to more fully develop the deeper ground.

There is plenty of room for further development in this mine, and, with the expenditure of a little more capital, should once more be restored to the dividend-paying list.

The Baker's Creek Consols Gold mining Company have a 10-head battery, but only crushed 451 tons for a yield of 258 oz., worth £878. This proving unsatisfactory the battery was stopped, and the mine is now being further developed, and from present appearances should turn out well. The battery is likely to commence crushing again at an early date.

The Cooney Proprietary Mines, Limited, was originally known as the Baker's Creek No. 1 Extended, and was purchased, together with the Golden Gate Syndicate, in the early part of the year by the United Australian Exploration, Limited. In this mine a tunnel has been driven 600 feet to intersect the Baker's Creek reef and other known reefs on the eastern side of the gorge, the course of the tunnel being at about right angles to the course of the reefs. It is proposed to carry this tunnel in about 2,000 feet. A large amount of dead work must be done before this mine can be proved, and will take at least another twelve or eighteen months to accomplish.

The Hillgrove Proprietary Mines, Limited, was originally known as the Golden Gate Syndicate, and was purchased by the United Australian Exploration, Limited, and is being worked in conjunction with the Cooney Proprietary, which it adjoins on the north east. The tunnel being driven in the Cooney Proprietary will eventually intersect this property, which can then be worked to advantage. The company is at present engaged sinking winzes and driving levels.

A parcel of 28 tons was crushed during the year by the old syndicate shareholders for 30½ oz., worth £113 10s. This Company promises well, and should, by the end of the year, give employment to a large number of men.

The Hopetoun Gold mining Company crushed during the year 156 tons for 210 oz., worth £735. This mine has been virtually hung up, having only had about five men employed, and it is not known what is contemplated in the future.

The Cosmopolitan Gold mining Company crushed 25 tons for 12 oz., worth £43, and have only two men employed.

The Garibaldi Gold mining Company had suspension during five months of the year, and only had one small crushing, the returns of which are not available. The mine has been let on tribute for some months past, the company finding a share of the cost which embraces development to a limited extent. The tributors have had several very fair crushings, and although every endeavour to obtain the returns have been made they have proved unsuccessful. This mine, which belongs to an English Company, and is in want of more capital, which they are at present endeavouring to raise.

The "Phoenix" gold mine at Rockvale was conditionally purchased by the New Zealand Mines Trust, Limited, in November last, and they were occupied well up to the end of the year in putting the mine in working order. They have a 30 stamper battery and four Frue vanners. The operations for a considerable time will consist in sinking and putting down levels to open up the ground, crushing only such ore as is taken out thereby. They are really only prospecting the mine with a view of ascertaining its value before completing the purchase. This mine has good prospects. The returns from the old company are not available.

Thomas Keys and party have a 25-acre lease at Warm Corner, with a reef averaging from 1 to 6 feet. They are at present only prospecting.

There are also a number of other parties prospecting in this locality, and they all speak highly of the field, which should give employment to a number of miners during the coming year.

The Surface Hill Prospecting Syndicate at Rockvale during the year extended their shaft to 242 feet. They sunk 162 feet through the basalt, and after they bottomed, turned out a duffer.

The miners on this field have been considerably handicapped through want of water during the year, but the copious rains that have fallen of late will ensure a plentiful supply for some time to come. There is a large area in this district which has not yet been fully prospected, and it is generally considered that, with expenditure of more capital, a number of payable reefs will be discovered.

The total number of men employed in this division is 530.

Metz (late Hillgrove West) Division.

The total yield of gold being 10,330 oz., valued at £36,609, as compared with 13,481 oz., valued at £47,551, won in 1896.

Mining operations have been carried on uninterruptedly in this division during the year.

Hitherto water was the greatest hinderance the mines had to contend with, but this year has been totally different to those of the past; rain fell so constantly that during the whole year the supply at the West Sunlight has been abundant, the three dams almost continuously running over, although at times water was not plentiful in Baker's Creek, which supplies the Sunlight Mine, but not sufficiently low to impede operations.

Not much prospecting has been carried on. Murgatroyd and party are still driving in the hill on the east side of the Sunlight in the hope of intersecting the Sunlight Reef. This is a very deserving syndicate, working continuously for the past four years without any return, but are sanguine of success.

Peterson and party are still working their gold Lease No. 170, and, with sufficient capital to develop their property, it should prove satisfactory. Nothing has been done at the Starlight Mine during the year. The owners have applied to convert their property into a lease, as it is held as a quartz claim, till they have applied for the surrounding blocks; so this will give them a larger and more convenient area to develop.

The West Sunlight Reef Gold mining Company's crushing power consists of twenty heads of stampers with six vanners. During the year they crushed 7,202 tons for 4,794 oz., valued at £17,548. This mine is for the first time in a position to give a return to the shareholders. Recently the crushings have been remarkably good, and is now in a position to declare a dividend. The mine appears to improve in value as it deepens, hence its prospects for the future are very satisfactory. The stone at the 800 feet level is better than any that has been met with yet. There are about 120 men employed in and around the mine. The value of the plant is estimated at £10,000. This is the fourth mine on the Hillgrove Gold-fields that has been successful in giving the shareholders a return for money invested. This

The mine, owned by the Sunlight Gold-mining Company, has had a successful run, and has paid two or three dividends during the year. They are just about to commence sinking operations. The crushing power consists of forty stampers and concentrating plant.

During the year they crushed 11,148 tons for 5,326½ oz., valued at £18,326. The plant is estimated at £10,000. A mine with the great capacity this has, and run by eighty hands, speaks magnificently for its prospects, the reef itself averaging from 3 feet to 15 feet wide.

Fuller and Party, who took over the old Hopetoun property, are still working with satisfactory results. They crushed for the year 156 tons for 210 oz., valued at £735. They have no battery of their own, consequently have to haul the stone from the bottom of the falls.

This year has been a most successful one for the miners, as there has been continuous work throughout, and the mines are now in a better position financially than ever they were, so that without any of the fresh developments that are in sight we can safely predict a successful year for 1898.

Uralla Division.

In this Division some 300 men are at work, principally fossicking, and, as far as can be ascertained, they won among them about 1,600 oz. of gold. When water is plentiful it is said these men do fairly well in this locality.

Swamp Oak and Niangala Divisions.

A few years ago a good deal of attention was centred in this Division, from the rich crushings obtained from several reefs, almost surface stone, which were never fairly tested at a depth, the only exception being the Highland Mary. When this lease became the sole property of Messrs. Brown Bros, their knowledge of mining, and by able management, it was shown that the reef carried better gold at a depth than on the higher levels. This property has since been sold to the New South Wales Gold-field (Limited) Company, a wealthy English company, but is still under the active and able management of Mr. A. J. Brown (one of the former owners). The company are going in for a systematic development of the mine, powerful winding and pumping gear have been erected, and they have introduced the Ingersole Rock Drills Compressor, which appears to be doing its work admirably, effecting a saving in time and money. A new main shaft is being sunk, 12 feet by 4 feet, to cut the reef at 350 feet, but the company intend cross cutting, to cut the same at 240 feet. This depth has been reached, and the cross-cut in some 30 feet; they expect to cut the reef in a few weeks. This reef was worked by the former owners, Brown Bros, to a depth of 135 feet, in a shaft about 66 feet from the present main shaft, and driven on for over 300 feet, most of the stone being stoped to that level, leaving a good reef under foot the whole of that distance. The last crushing taken out by them of 257 tons gave a return of 1,070 oz., without treating the tailings, which gave assays from 15 dwt to 1 oz. 17 dwt. per ton. Alongside the reef there is a splendid black slate, which strengthens the opinion that the reef will carry good gold throughout, and found to be richer at a depth. The company have also erected a most complete cyanide works, which give good results, the stone formerly raised and crushed by the ordinary battery process giving a return of 4 oz. per ton; the tailings treated by cyanide have increased this yield by nearly another ounce. This is very satisfactory; it also shows the amount of gold that was lost previous to this process being introduced. The company intend to erect a powerful battery on the mine, and save the cost of handling the stone once it leaves the face of the reef for the battery, and from there the tailings will be trucked to the cyanide vats. This plant will not be erected until the reef is cut; the present battery will be used until that time. Most of the ground adjoining the lease has been secured by this company, holding about 69 acres, and during the last few months they have purchased the Victory leases, which adjoins theirs on the eastern boundary, being only about 200 feet from their main shaft; the Victory proved itself a good payable reef to the 80-foot level, and after a little dead work had been done was abandoned, and was taken up again about the time the Highland Mary changed hands. At the southern end of the latter leases are the Little Tichbourne, Surprise, Rising Moon, and Storm King leases; it is generally believed the Highland Mary reef extends through these leases. In the early days of this field good gold was won from the surface to a depth, when the gold cut out. Very little prospecting was done, and the leases abandoned. They have again recently been taken up, with every probability of being thoroughly prospected, and this cannot be done without a considerable expenditure of capital. The Sheba is another worthy of further prospecting; crushing from this reef averaged over an oz. per ton; the gold schute is a long one, but the reef is "bunchy"; this may be accounted for by the country being somewhat thrown about. A drive at a low level would be the less costly and most thorough mode of testing it. The Routine Flush, which has been worked and abandoned several times, is now in the hands of a Sydney syndicate, who are sinking on the reef, and have about 50 tons of stone at grass. There is great anxiety on this field, awaiting the cutting of the reef on the Highland Mary, and, if successful, there will be a splendid opening in this locality for a profitable investment of capital.

At Niangala.—The principal properties there are—The Jersey, Just in Time, South Jersey, and Morning Star, as well as about 160 acres freehold—have been acquired by the New South Wales Gold field, Limited, and worked under the same management as the Highland Mary leases at Swamp Oak. The crushings from Jersey and Just in Time have been highly satisfactory, ranging from 1½ oz. to 6¼ oz. per ton; these two reefs are the only ones commanding the attention of the company at the present time. The Morning Star is principally development work; the Jersey Shaft, which is now down about 150 feet, is being trimmed and retimbered; this is found necessary owing to its unsafe condition; when this is completed sinking will again be continued and the shaft put down 300 feet. If the reef is still in the bottom a good main shaft 12 x 4 will be sunk; they have erected suitable winding gear, steam pump, and poppet heads, with many other improvements, though work has been somewhat slack owing to the timbering of the shaft; when this is done employment will be found for a good number of men. In addition to the leases worked by the company several others have been taken up during the past year that have proved from their small crushings to be payable properties, but require capital for their proper development. The progress in mining on this Division during the past year is very marked, and with every appearance of its becoming a prosperous little gold-field.

At Shearin's Creek, also in this Division, prospecting has been energetically carried on during the past year, and there is a good prospect of success; the prospector's lease, known as the Camp Fire, has crushed 100 tons, with a result of 1 oz. 4 dwt. to the ton. The Brindle does not show so well; 17 tons were crushed for a return of 14 oz. 16 dwt. This place will show a decided improvement in its mining prospects during the current year.

At Paradise there is but little mining going on at present. A Newcastle syndicate has recently taken up some leases, which may lead to a revival in mining.

In the vicinity of Glen Morrison very little mining is being done at present.

Tamworth Division.

A new find in quartz at Stock yard Creek, near Lumbri Railway Station, about 22 miles from Tamworth, is the only find of importance made during the year; but insufficient development work has been done to justify an opinion being formed as to its being payable or permanent. Seven tons were forwarded to Sydney from the lease known as the Lucky Mine, with a result of 1 oz. 12 dwt. to the ton. Considering the size of the reef, nearly 3 feet wide, with easy working, the above may well be considered a handsome return. An alluvial find at Spring Creek, in this locality, is giving employment to a number of men, who are doing fairly well. The gold yield for the year is estimated at 150 oz., as compared with 260 oz. in 1896.

Nundle Division.

The quartz mines which have produced good stone in this Division during the year are Gazely's, the Golden Gate, the Black Snake, and the Christmas Reefs, and still have every prospect of a continuance of prosperity. About 1,752 tons were crushed, the result being 2,943 oz. of gold, valued at £9,772.

The Tamworth Gold-mining Company (floated in London for £85,000), with its capital and splendid machinery, has not had a payable crushing. Mr. Fuller, the chairman of the London directors, is now on the field supervising the working, and testing the value of their property by crushing from several veins, and exploration. His advent on the field has been a great benefit, having permitted the machinery of the company to be used in crushing for the local mines. Previously the stone had to be carted to Bowling Alley Point, the cost of cartage alone then exceeding the now full cost of crushing. This has given an impetus to mining in the locality, by causing stone to be crushed with a payable result that could not have paid the more than double cost of cartage and crushing. Very great credit is due to the New South Wales Exploration Company (Limited) for the admirable work they are doing in exploration of their properties (about 96 acres) and valuable prospecting in the interests of the district. Should their efforts prove successful the prosperity of this field is assured for many years by remunerative employment being found for a large body of miners. At

At Bowling Alley Point.—The principal mining in this locality is now upon private lands—that of the Peel River Company. Two or three claims are on payable gold. It is expected that the formerly exceedingly rich claim (quartz), the Marquis of Lorne, will again be tried by a strong Company. The Tamworth Proprietary Company have abandoned their leases, and their new and up-to-date machinery left unemployed. One of the leases has been taken up, with good prospects of being made to pay. Claims often pay the working miners handsomely that will not bear the cost of a large Company, with a directory, legal manager, secretary, and other expenses. There is very little work being done upon Crown lands, and what is being carried out is principally fossicking.

Stewart's Brook Division.

The quantity of gold produced during the year within this Division was 2,280 oz., as compared with 4,440 oz. in 1896. The decrease is accounted for by the fact that the Moonan Brook Field was formerly embraced in the Division, but was during the year proclaimed as a separate Division.

The principal mines in this Division are the New Royal Standard, the Stewart's Brook, the Bluey, and the Lady Grace. Each of these Companies have erected batteries on their properties.

This gold-field has ceased to be, in a great measure, a poor man's field. To get at payable gold the work has to be carried on in deep ground, necessitating a large outlay of money. So much is this the case that the Stewart's Brook Company and the adjoining leaseholders, the Durham Syndicate and Wooderson and party, having exhausted their capital, have had to apply for a suspension of the labour conditions to enable them to form one large Company, and to place it on the market for capitalistic purposes. The Stewart's Brook Company have already expended over £5,000 in machinery and labour. With the introduction of more capital there are excellent prospects of these properties employing a large number of men and returning handsome dividends to the shareholders. One Company on this field has already done this for some years past. This Company, the New Royal Standard, besides paying regularly good dividends, has formed a reserve fund of £1,618 14s. 2d. The question of treating the tailings has been receiving the serious attention of its manager, Mr. John Davies, and a small cyanide plant has been erected, at a cost of about £450, capable of treating 200 tons a month. Two assays of these tailings showed them to contain, in the one case, 1 oz. 7 dwt. 18 gr., and in the other, 1 oz. 6 dwt. 3 gr. Should the tailings contain this amount of gold, and such a large percentage be recovered, the Company has a nice sum forthcoming from the 900 tons stacked at the battery. This mine is looking well.

Following is a list of the principal crushings on the field during the year :—

Mine.	Tons.	oz.	dwt.
The Royal Standard	713	1,813	14
The Bluey	552	152	9
The Stewart's Brook	900	600	0
The Lady Grace	150	37	10
Imperial Standard	12½	11	0
The Lady Maude	40	29	16
Adam's Syndicate	28	29	5
Rose and Party	17	16	6
The Here's Luck	20	24	19
The Iron Duke	6	4	7
Towns and Party	22½	15	11
Marshall and Party	2	1	16
Scott and Party	5	2	19
R. H. Carter	131	276	12

Moonan Brook Division.

This Division formerly formed a portion of the Stewart's Brook Division. During the year there has been a considerable impetus in gold-mining; a number of new reefs have been discovered, chiefly at Omadale (the Denison) and Dry Creek, some of which, though small, are rich, but do not appear to go to any depth. As a rule, these are worked whilst gold is obtained, and then abandoned. The most important discovery is at Omadale Brook, and the reef, named the "Federation Reef," appears to extend in a northerly direction through the Sugarloaf Mountain. This reef is well defined, and the owners are working it in a systematic manner. They have crushed 50 tons, which gave 74 oz. of gold. At the foot of the mountain is another vein, recently discovered by William Towns. It is rather small, but the ground is favourable. A trial crushing of 3 tons produced 9 oz. 9 dwt. of retorted gold. Adjoining Towns' lease another has been applied for by two men, who obtained good specimens. Half a mile to the south-west of these workings Towns and Son discovered another reef, which, like the other, is small but very rich, 24 tons having produced 90 oz. 5 dwt. of gold. On the north side of the Sugarloaf Mountain Messrs. Hall and Wharton have a very promising reef. Their shaft is down about 80 feet, and fine gold can be seen all the way down. Fourteen tons from this reef gave 30 oz. of gold. It is believed to be a continuation of the Federation Reef. A tunnel has been started by another party to cut this reef further up the hill. These men are in 150 feet, and have another 150 feet to go. The rock is chiefly slate, and not difficult to work. Other small finds are numerous, but no stone from them has been treated. About forty men are at work on this part of the Division.

Five mines are receiving aid in this Division, and of these three will be profitably worked, it is believed. The total yield of gold is estimated at about 927 oz.

The following crushings were made during the year :—

	Tons.	oz.	dwt.
At Moonan Brook—			
Hinson and Party	61	154	9
Teague and Party	27	29	5
Williams and Gunter	31½	40	12
Steinback and Urquhart	10	6	0
Simpson, Tilso, and Simpson	75½	69	16
Baker, Smith, and Campbell	5	6	7
Amidy and Dunbar	5½	14	15
J. Saxby	3	1	10
Spencer and Black	3	2	2
McElroy	5	4	15
Omadale Brook and Dry Creek—			
Johnson and Son (Perseverance)	97	131	0
Towns and Son	27	100	5
Urquhart	2½	5	10
Bakewell and Company	6	3	12
Winness and Party	31	95	0
Gaslick and Party	27	25	0
Hall and Party	14	30	10
J. R. Woods	7	4	10
Sharp and Party	5	2	15
Sellers and Party	3	0	9
The Federation Company	50	74	0
Skeins and Party	15	10	15
Oram and Party	15	1	5
Patrick Ahearn	7	2	10

The alluvial workings on the Stewart's Brook, Moonan Brook, and Omadale Brook fields are poor, few, and far between, and the mining is essentially quartz-mining.

There are seven batteries altogether, namely, four at Stewart's Brook, two at Moonan Brook, and one at Omadale Brook. Dry Creek, which is 5 miles from Omadale, is without a battery; and as the road is a very difficult one to get over, this is a serious drawback to the miners there.

Mr. R. H. Carter's mine is the only one on private property in the district. It is on his own land. He has crushed during the year 131 tons, giving 276 oz. 12 dwt. of gold.

The

Barraba Division.

The gold won within the Barraba Division is just the same as for the previous year, viz., 600 oz.

At present there are about 150 miners on the different fields, viz., Crow Mountain, Wood's Reef, Ti-tree Creek, and Gulf Creek.

Crow Mountain has been very quiet during the year, owing to scarcity of water for crushing purposes.

Advantage has been taken of the Mining Laws Amendment Act by many of the miners to obtain authorities to enter and prospect the neighbouring private lands, with good results in some cases.

Several parties have been aided from the Prospecting Vote, and are vigorously testing their reefs.

The Barraba Crow Mountain Gold and Silver Mining Exploration Company has been formed, with Mr. Ernest Samuel Hunt as manager, and is expected to improve the Crow Mountain Field.

The Dodger Mine, owned by the Inverell Crow Mountain Company, is still putting forth good gold.

Messrs. John Dyson and Party, of the Red Flag Mine, have had some good crushings during the year.

Wood's Reef has been dull during the year, and few claims have been worked. Towards the close of the year however, owing to the energy displayed in the matter by Mr. G. F. Bradshaw, a company decided to erect a cyanide plant on the field, and, as the machinery is in course of erection, Wood's Reef is expected to forge ahead. The Golden Jubilee Mine, owned by Messrs. McLauren and Party, is still showing rich stone, and good returns have been received from crushings.

Bingara Division.

Gold-mining in this division for the past year has been very slack, owing principally to scarcity of water and want of capital and machinery to develop the mines.

A crushing from the Perseverance Claim of about 4 tons gave a return of 13 oz. to the ton. The syndicate are vigorously testing their ground, but unfortunately have no machinery on the mine.

About the middle of the year a small rush took place to some ground situated 1 mile east of Bingara, which has kept a few miners employed. The find is, however, not of great importance. It is estimated that 380 men are employed gold-mining throughout the division, and they won about 1,068 oz. of gold. With a favourable season this quantity could be largely increased.

NEW ENGLAND MINING DISTRICT.

Fairfield (Drake) Division.

Although the yield of gold from all sources during the past twelve months shows a considerable decrease on the yield of the previous year, it must not be looked upon as a sign that the mining industry is in a languishing condition, as present conditions point to the fact that mining in this district will have a long term of prosperity. And the prospects of the field never looked brighter during the last ten years than they do at the present time. The chief cause of the shortage in the yield of alluvial gold is due to the protracted drought during the greater part of the year, in consequence of which there has been a scarcity of water for sluicing purposes, and on many parts of the field mining has been reduced to fossicking. Quartz mining, from the same cause, has been very much retarded owing to an insufficiency of water to work the batteries, and several parties who had large parcels of stone ready for the mill were unable to have it treated, which accounts to some extent for the shortage in the return of gold from quartz mines, but now that the drought has fairly broken up there is an abundant supply of water for all purposes, we may look forward to a large yield of gold during the incoming year.

The "Lady Jersey" Mine, at Long Gully, distant about 6 miles south of the township of Drake, which, for a number of years has been the premier gold mine of the district, shows a decrease of over 500 oz. of gold on the yield of the previous year. This, however, must not be attributed to the poverty of the mine, but to another cause, for which, no doubt, a remedy will be found in time, and that is, a cheap and effective method of dealing with the refractory ores which are found in the deep levels of all our mines. The mine is now being worked at a depth of 140 feet from the surface, and the lode, which is composed of zinc blende, copper pyrites, and quartz, varies in width from 1 inch to 2 feet, and traverses a felstone formation. In the deeper levels the ore is not so rich in free gold as that which has been obtained in the higher levels of the mines, where oxidation has taken place, and although the ore by assay gives a large return of gold, it is impossible, with the gold-saving appliances on hand, to extract from it the whole of the gold contents. All concentrates are, however, saved for future treatment, when a better class of machinery for that purpose is available. The "Lady Jersey" Company have, during the past year, crushed and treated 1,364 tons of stone, for a yield of 1,707 oz. of gold, of the value of £4,911, and they have also 500 tons of concentrates on hand. The gold-saving appliances on this mine consist of a 5-stamp battery and one Frue vanner, driven by an 8-h.p. portable steam-engine. The value of the plant is £900. The men employed continuously during the year number thirty-six.

The "Pioneer" Mine, at Mount Carrington, near the township of Drake, is another mine similar in character and formation to the "Lady Jersey," and below the 100-foot level. Owing to the refractory nature of the ore, very little of the gold can be extracted by the old-time gold-saving appliances at present in use on the field. The "Pioneer" Company hold an area of 31 acres in gold-mining leases, and have expended therefrom beyond having a large quantity of ore at grass, which, not less than £4,000, without much profit accruing therefrom beyond having a large quantity of ore at grass, which, though rich in gold, they cannot have satisfactorily treated locally. This company, I might mention, has done a good deal of *bonâ fide* prospecting on their property, and have sunk one shaft to a depth of 200 feet, proving the existence of an auriferous lode at that depth, and they have sunk other shafts, varying from 80 to 100 feet in depth. The average width of the vein or lode at the deepest level is 1 foot, and is well defined. During the past year they have crushed about 195 tons of stone from the 80 feet level for a yield of 151 oz. of gold of the value of £453.

The "Nil Desperandum" is the next mine of importance on Mount Carrington, and has come conspicuously into prominence during the last two years, by its marvellous yield of gold. The deepest workings in this mine at the present time do not exceed 100 feet and the vein of ore operated on averages only 1 inch in width. Only 50 tons of stone have been raised from this mine during the year, which was crushed at one of the local batteries for a yield of 379 oz. of gold. The tailings from this parcel were collected and forwarded to Sydney for further treatment, with the result that 80 oz. of gold were extracted therefrom, bringing up the total yield from the 50 tons of stone to 459 oz., of the value £1,556.

The "Rainbow" Mine is the next to occupy an important position in this locality, and consists of a 2-acre gold lease held by Messrs. Parker and O'Connor, and is situated almost on the crown of Mount Carrington, overlooking the township of Drake. The deepest shaft on this mine is only 110 feet deep, and payable gold has been obtained to that depth, but the lowest level at which mining operations are carried on at the present time is 50 feet, at which depth a main drive has been put through the whole length of the lease, exposing a payable lode which averages 1 foot in width. The mine is worked by only two men, who have during the past year raised and treated 57 tons of stone for a yield of 140 oz. of gold of the value of £420.

The "All Nations" Mine which during the greater part of the year was shut down in consequence of some disagreement between the original shareholders, has now been taken over by a new syndicate, and mining operations have been resumed. The new company are now sinking a main shaft for pumping purposes from which it is intended to drive into the old workings below the 110 feet level where the former company some years ago profitably operated on a rich chute of stone, which they were obliged to abandon in consequence of the great influx of water at that depth. About 100 tons of stone taken from the upper levels of this mine during the year have been crushed for a yield of 90 oz. of gold of the value of £315. The new proprietors are going earnestly to work, and being men of some means there is no doubt but this mine will give a good account of itself before the end of the present year. They have in connection with their mine a six-stamp battery driven by an 8 h.p. portable engine, and a 4 h.p. engine for pumping. The value of the mining and crushing plant is £400.

The "American Barber" Mine is a gold lease of 5 acres of land, situated on the northern slope of Mount Carrington, held by Mickle and Party. Some very rich patches of gold have been met with in the mine from time to time, and payable returns have been obtained from the parcels of stone crushed. During the past year this party have raised and treated 88 tons of ore for a yield of 146 oz. of gold of the value of £530. The deepest shaft in the mine is only 100 feet deep, and the lowest level worked is 87 feet. The lode which is very much impregnated with copper varies from 1 foot to 3 feet wide.

The "Lone Hand" Mine, owned by Messrs. Staunton and Taylor, is a 2-acre gold lease, and is situated on the southern slope of Mount Carrington. The lode or vein in this mine is very small, being not more than 3 inches wide, but is extremely rich. It cannot, however, be termed a true fissure lode but merely a vein of quartz traversing a hard felstone formation,

formation, and, which adheres so closely to the enclosing formation that a portion of the country rock must be taken with the vein. The deepest workings on this vein do not exceed 60 feet from the surface. A parcel of 17 tons raised during the year and treated locally gave the magnificent return of 141 oz. 13 dwt. of gold, of the value of £500 13s. This, like many other mines on the field, is a two-men's claim.

Ward Brothers, on the north side of Mount Carrington, are the holders of a gold lease of 2 acres of land, and the lessees have during the past year been operating on a small auriferous vein about 4 inches wide, and their efforts have been attended with a fair show of success, as they have raised and treated during the year 44 tons of stone for a yield of 63½ oz. of gold of the value of £237

The Lady Hampden Mine at Sawpit Gully, near Drake, which is an immense deposit of auriferous and argentiferous matter of a refractory nature, is owned by a syndicate of Sydney gentlemen, who have expended a considerable sum of money on its development; but owing to the difficulty experienced in having the ore successfully treated locally they have had to suspend operations for a time for the purpose of sending a parcel of the ore to Europe, with a view to ascertain the best and cheapest method of treatment and the class of machinery adapted for the manipulation of this description of mineral.

The chief characteristic of this field is that as soon as the oxidised auriferous belt of country is passed through, which occurs at a depth of from 50 to 80 feet, the ore met with is of a refractory nature, and then the miners' troubles commence, inasmuch that the gold contents cannot be extracted or separated from the other base metals with the gold-saving appliances at present in use on the field. Unfortunately the ore is not sufficiently rich in gold to send to distant metallurgical works for treatment with any hope of leaving a fair margin of profit to the producers; therefore the mineral must remain on hand an unmarketable commodity until the advent of more improved and efficient gold-saving appliances by which these refractory ores can be treated locally. Not until the complex minerals can be treated on the ground will the prosperity of this, as a gold-field, be permanently established.

The oxidised ores extend over a very large area of this field; and notwithstanding that they do not extend to any great depth, there will be profitable employment found for small parties of miners for many years to come. Attention is now being directed to the Red Rock mines, distant about 12 miles west of Drake, and gold leases comprising an area of 40 acres have been recently taken up by some Sydney people, and no doubt that with well-directed energies that part of the field will be brought into prominence once more. The ore in that locality is of rather a low grade, but still by working the mines on a large scale and on economical lines success must follow.

At Lionsville, in the southern portion of this Division, mining is progressing steadily, and although no sensational discoveries have been made, an increase in the mining population has taken place during the past year, and several of the abandoned mines retaken up. Several parcels of stone from the reefs near Solferino have been treated at Bassett's battery with most encouraging results.

The alluvial mining in the Fairfield Division is spread over a very large area of country, and embraces Timbaria, Poverty Point, Millera, and McLeod's Creek in the south; and Tooloom, Pretty Gully, Mosquito Creek, Frazer's Gully, and Lunatic Reefs in the north; and about 320 European and Chinese miners find profitable employment on these old diggings, and the average earnings in some places is about 30s. per week.

Tenterfield Division.

There are only about forty Europeans engaged in mining pursuits in this Division. Of these twenty-two are working at Boonoo Boonoo, six prospecting for the rich gold reefs that were successfully worked some years ago, the remaining sixteen are fossicking for alluvial gold which is generally found in the numerous creeks and gullies abounding in that locality. There are one five-head and one three-head batteries and one Huntingdon mill of a total value of probably £500, all of which are idle pending the result of prospecting which is being vigorously proceeded with. At Bolivia, which is some 24 miles south of Tenterfield, Lambert and Party have sunk a depth of 40 feet, following a conglomerate reef; and at Sandy Flat Devon and Party are prospecting for gold under aid from the Prospecting vote, while some six other parties are prospecting in the neighbourhood, all so far without payable results.

CLARENCE AND RICHMOND MINING DISTRICT.

Grafton Division.

The value of the gold won in this Division is 1,719 oz., as compared with 780 oz. in 1896.

The number of miners employed throughout last year in this Division has not been so large as during the previous year.

The rush to Yugilbar, which took place during the latter part of 1896, owing to the sensational crushing of 85 tons for 500 oz. from Penrose and Rise and Shine Reefs, collapsed, and the miners dispersed to other parts of the district. There are, however, several quartz leases being prospected at Yugilbar, but with varying success.

The only large company in this division, the Walter Scott, has been idle throughout the year, and the proprietors are now endeavouring to dispose of the property.

Nana Creek Division

This Division, which embraces the Bucca Creeks, Coramba, Orara, &c, has made wonderful progress during the year as a gold producing centre, and for the sake of comparison the yields for the past few years are given:—

1894	427 oz.
1895	1,554 „
1896	2,256 „
1897	11,234 „

It is also satisfactory to note that, as the mines are being more fully developed, their permanency is becoming more assured, and the miners have removed their wives and families to the field, which is beginning to wear already quite a settled appearance. The principal mine in the Division is owned by the Beacon Gold-mines (Limited), who crushed 5,980 tons of stone for a yield of 8,916 oz. of gold, valued at £32,000. This company has a most complete plant, valued at over £5,000, and they employed on an average 100 men. Their main shaft is now down 180 feet.

Numerous other small crushings took place, the total quantity of stone raised and treated in the Division during the year being 8,883 tons for a yield of 11,234 oz., as stated.

At Tallewadjah Creek and neighbourhood mining is making steady progress, and the crushings, though small, are regular and satisfactory. The battery has been kept going continuously for some time past, and each one using it appears to be perfectly satisfied with the returns. They are not large or by any means sensational; still, they appear to be sufficiently good to give a fair living and leave something over, with the show of something better turning up at any time. It appears to be a poor man's diggings.

Quite a small township has sprung up around A. R. Everingham's battery, chief of whom work their own ground, and nearly all get a little gold. The 5½ tons got from the old Currajong reef was knocked out for a yield of 9 oz., representing three men's work for about three weeks, and others are doing as well.

The reefs are not at the present large; they are working shows, but with the number of reefs that are known to exist in this range, there should eventually, if not now, be a good opening for a company to tunnel from near the bottom of the hill and cut the whole of them. This, of course, will to a great extent depend upon what size the reefs will be at deeper levels than now being worked. The deepest shaft on the field is that of the Joker, the property of the Everingham's, about 75 feet. In it the reef has been proved to increase in size as it goes to that depth, hence it is reasonable to suppose that the others may likewise do so, and the indications, judging from the general appearance of the country rocks, are that they will live to a depth and prove permanent.

With a range that rises to a height of about 600 or 700 feet at a tolerably steep angle the advantages to be derived from a low tunnel, as suggested, are manifest, while the cost of same should not be great, and with this completed all the reefs could be worked from one or two main levels, the drag up and down the hills avoided, and the heavy cost of carting abolished.

Many of the workings are held by virtue of the prospectors' miners' rights enabling them to mark off prospecting protection areas. Several gold-mining leases have been applied for.

At the Record Reign, about a mile to the south on a branch of Tallewadjah, the company has a fine battery. The manager, Mr. R. U. Thomas, reports that in cross-cutting a north and south reef has been cut which carries gold. The cross-cut was continued and connected with the shaft hitherto known as the "Homeward Bound," at somewhere between 60 and 70 feet from the surface, and showing about 3 feet of stone carrying fair gold. He then continued driving east to the western shaft, and then put in a cross-cut south about 30 feet for the middle reef. The shaft known as McKinnon's, not far from the mouth, has been connected with the tunnel, and stoping here has been commenced.

Little Nymboi.—Henderson and Stuart have worked the old Waratah, and driven for the reef at the 40 feet level. They intend putting through a crushing of 20 tons from their original lease. A few gold leases have been applied for here. The gullies are raked by fossickers but nothing startling found.

The Lower Bucca Reefs are situated as the crow flies, about 9 miles east of Nana Creek. The country consists of slate and sandstone, and dips north in the more eastern portion of the field, which in the west from what is seen in the mines opened the strata appear to be vertical and striking north-west. Although gold has been got in some cases in the sandstone the best has been obtained when the reef entered the slate country, and points to the conclusion that the slate will eventually be found the true gold-bearing strata of the field. In the neighbourhood of Mr. D. Pont's "Mountain Maid," gold-lease 381, C. and R., portion 73, which is the centre of the township, the country is a mass of rotten slate and clay mixed, and the reefs consisting of fragments of quartz, which in most instances require only the hammer and gad to break. Most of the shafts about have all been sunk by the pick only. With the exception of Mr. D. Pont's none of these reefs have turned out in any way regular. His shaft, well timbered throughout and having first-class laddering, is down 105 feet, with a lode 4 feet wide. Its dip is about 1 in 10 to the east bearing north and south. From some of the reefs fairly good returns have been got. In size they average fairly, and where they have been cut in settled and solid country the percentage of mineral they contain is at once noticeable. The "Blue Mystery" is the first and most important reef. This is a very fine body of stone with well-defined walls running vertical nearly as true as a plumb and striking north-east. General width of the reef, 2 feet, and it carries a high percentage of mineral. The reef was first discovered in the small creek near the shaft when it formed a bar a couple of feet above the level of the watercourse. A shaft was then sunk on the east bank, and at 25 feet a drive put in a length of 75 feet on the reef.

At Coramba, outside the Coramba King and Evening Star mines, the property of Alfred Cadell, Esq., there is little if any permanent mining work in their immediate vicinity being carried on, and but for him mining at Coramba would be very far behind Tallewadjah Creek and other mining centres in this Division. From statements made by several good and thoroughly practical miners their resolve is to quit Coramba for another part of the field, the reason given that outside Mr. Cadell's properties there is nothing whatever to induce them to remain.

Following is a list of batteries in the Nana Creek Division at the close of the year 1897 :—

The Beacon Gold-mines (Limited).—Their battery is situated at Upper Bucca Bucca, in the parish of Moonee, and comprises ten head of stampers, with a 50-horse power engine.

Alfred Cadell, Coramba.—His battery is situated at Coramba, in the parish of Moonee, and comprises ten head of stampers, fitted with automatic feeders, amalgamating plates and appliances, Berdan pan, &c.

George Tyson, Fernmount.—His battery is situated on the south branch of the Upper Orara River, in the parish of Coff. It consists of five head of stampers, amalgamating plates, &c.

Thomas Henry Barbour, Lower Bucca.—This battery has been in work throughout the year. It is located at Lower Bucca, in the parish of Moonee. It has eight stampers.

Thomas Robert O'Grady, Whiteman Creek, *via* Grafton.—This battery is known as the Nana Creek Battery. It is a 10-stamper one, with amalgamating plates, &c.

Record Reign Gold-mining Company (No Liability), Glen Innes.—This battery, situated near Tallewadjah Creek, in the parish of Bagawah, is under the management of Mr. Richard Wren Thomas. It consists of ten head of stampers, with amalgamating plates and other appliances for the extraction and retention of the gold.

Elijah Henderson, Little Nymboi.—This battery is situated at the Little Nymboi, in the parish of Comlaroi. It has four stampers, and amalgamating plates and all requisites.

Albert Roland Eveingham, Nana Creek Road.—The site of this battery is at Tallewadjah Creek, in the parish of Bagawah. It consists of three head of stampers, with amalgamating plates, &c.

H. Robinson, E. Symington, H. Cross, S. McNamara, Hillgrove.—This company's battery, a new one by Hodgkinson, of Newtown, Sydney, is situated at the Little Plain, near Mole Creek, in the parish of Wilawan. It has ten head of stampers, each 7½ cwt. The engine, by Robey, with boiler, is portable, and is of 16-horse power.

The Coramba Queen Gold-mining Company (No Liability), Melbourne.—The battery is erected at their mine at Coramba, in the parish of Moonee. It has ten head of stampers, driven by a 16-horse power 10-inch cylinder portable engine, by Robey. There are two of Halley's percussion tables and amalgamating plates.

E. F. Sharpe and J. J. Morrow, Nana Glen.—This battery is situated at the Morning Star Creek, on their M.T. 41, in the parish of Bagawa. It has two head of stampers, worked by a 4-horse power horizontal engine with a vertical boiler. There are amalgamating plates and all requisite appliances.

The total number of miners employed throughout the division is estimated at 400.

Dalmorton Division.

There is considerable improvement in the returns for the year from the Dalmorton Gold-field as compared with that of 1896, viz., for the present year 855 oz. 15 dwt. gold, and 339 oz. 5 dwt. for 1896, being an increase of 516 oz. 10 dwt., and it is believed this return will be exceeded during this year.

There are very few mines in operation at the present time the Mount Rea Gold-mining Company, at Mann River, being the principal. A ten-head stamper battery has been erected on this mine during the year at a cost of several thousands of pounds, and from thirty to forty men have been continually employed on and about the mine and battery. 733 tons of quartz have been crushed, but the returns are not up to expectations, still it is thought that a good result will be obtained during this year, by a more judicious management, and with this end in view, a new manager has now taken charge of the mine. The reef is from 6 to 12 feet wide, and if the whole of it can be payably worked, it will be the means of employing a large number of men.

The "Little Dora Mine" at Mann River is again at work after a few months suspension, and the last crushing gave a better return than any during the last two years. It is, therefore, the intention of the syndicate who own it, to further test the value of the mine by opening it up more thoroughly. A "Woodbury Concentrator" has also been added to the crushing plant, and by this means a large quantity of valuable concentrates is saved, instead of running to waste as hitherto.

The "Hawk Eye" Mine has been tried again but with rather an unsatisfactory result; and a small party of men are now working it on tribute and expect to make wages, but no return is yet to hand.

The only mine at work about Dalmorton is the "Carbine" and that is being tested with a view of ascertaining whether it can be profitably worked by erecting a battery on it, it is a fairly large reef and easily worked, and could be made to pay well at ½ an oz. to the ton.

A new find at Stockyard Creek is being well prospected by a Hillgrove syndicate, who intend putting machinery thereon should results warrant it.

The foregoing is a brief summary of all the work at present carried on in this district in reefing, which is a very small amount for so large an area of auriferous country, but no doubt a fresh start will be made shortly to work a number of known reefs which could be made to pay with the aid of capital, the want of which has been a great drawback to this district.

The alluvial returns show an increase of 135 oz. for the year, caused by a greater number of fossickers being at work, but no new finds have been made, and generally speaking, there is a bare living in alluvial about here. One fossicker found a nugget of 30 oz. together with about 14 oz. of smaller pieces in a small patch, but his luck stopped at that, and no more could be found in that gully.

The public crushing battery has been removed from Dalmorton to Corinda Creek (in the Woogoolga Division), as there was not sufficient work for it here, but the value of mining plant has increased during the year from £6,800 to £8,700.

Ballina, Lismore, and Maclean Divisions.

As McAuley's Lead, situated on the sea beach in the vicinity of Jerusalem Creek, has practically been worked out, mining in these Divisions has fallen off considerably. the quantity of gold won so far as can be traced being only 74 oz. There is very little prospecting work being done, but owing to the late copious rains a little improvement may be looked for.

for. A large number of the miners have made their way to the promising fields of Coramba and Bucca Creek. About the end of April the Government prospectors testing the beaches in the neighbourhood of Byron Bay were withdrawn. Although encouraging prospects were found, no lead sufficiently rich to warrant it being taken up and worked with the machinery now in use was discovered. A large area was thoroughly tested.

Woogoolga Division.

Mining matters have been rather dull in this Division during the last few months, owing to some of the crushings not proving satisfactory, and the influx of water into some of the workings.

A five-head stamper battery valued at £400 has been erected at Corinda Creek by Mr. W. Peters, who has put several small crushings through with satisfactory results. Twelve miners are on gold, sixty men are employed in the various mines in the Division, and twenty men are engaged in working alluvial.

Two hundred and sixty-five tons of ore were crushed during the year, which yielded 382 oz. 7 dwt. of smelted gold, valued at £1,481 9s. One hundred and twenty oz. of alluvial gold, valued at £432, was obtained in the various creeks at Corinda, and on the beach near Woogoolga.

The Wedding Bells, Lady Helen, and Thos. McCallum and Party's Mine are the principal ones in the Division, and are situated at Corinda Creek. At the Wedding Bells Mines the shaft is down 160 feet on a 15-inch vein carrying good gold. One hundred and eleven tons of stone raised from this mine yielded 241 oz. 14 dwt. of gold. The Lady Helen Mine on the same line of reef has a shaft down 130 feet on a 15-inch vein; 46 tons of stone raised from this mine gave a return of 22 oz. 12 dwt. of gold.

Thos. McCallum and Party's Mine, which were found during the year, is distant about 2 miles in a northerly direction from the Wedding Bells line of reef; 16 tons of stone taken out of this mine yielded 47 oz. of gold. It is estimated that stone now being raised from the mine will average 4 oz. of gold to the ton. Five tons of ore raised from Newhaven Mine (E. R. Webb) yielded 22 oz. of gold. The reef having cut out at the 30 feet level, the lease appears to have been abandoned.

Alfred Cobb and Party were granted aid to prospect the beach and terrace at Red Rock, 12 miles north of Woogoolga, and although a good deal of work was done, no payable gold was discovered.

It is expected mining matters generally will improve in this Division in the near future, and that several of the claims now lying idle will soon be worked again, and with the expenditure of a little capital will prove payable.

COBAR MINING DISTRICT.

Cobar Division.

It is pleasing to be able to report that the condition of the mining industry in this Division is highly satisfactory.

The introduction of further improved and extensive machinery, together with the better provision for water conservation, has done much towards developing the different mines on this field. A large amount of capital has been introduced during the year, one company—the Cobar Gold-mines (Limited)—having expended over £30,000 in connection with their property at Fort Bourke, 1 mile out of town.

The actual quantity of gold won during the year was 27,211 oz., made up as follows:—

From local batteries	15,285 oz.
From reductions made at Lithgow and Illawarra.....	11,926 ,,
	<hr/>
	27,211 oz.

This latter quantity is mostly saved in connection with the treatment of copper-matte, and goes to show what an important part the saving of gold from copper ore is having upon the output of the Colony. The total value of the gold, silver, and copper raised during the year in the Cobar district may be estimated at about £300,000.

It is estimated that during the three and a half years the tributaries have worked the Great Cobar Mine about 7,500 tons of copper and 40,000 oz. of gold have been produced, the total value of which is little short of half a million sterling.

Notwithstanding the great improvement on former years the anticipations formed at the beginning of the year with regard to some of the Cobar mines have not been fulfilled. First there was the temporary suspension of operations on the "Cobar Gold-mines" (Fort Bourke) and "Cobar Gold-mining Company" (Chesney)—the first-named company through insufficient cyaniding plant and other mining drawbacks, and the latter company owing to the failure to reconstruct or refloat. These two mines, it is stated, will before long be worked again on a large scale, and will eventually yield abundant quantities of gold and copper. The recent severe drought also seriously interfered with several of the batteries, and has prevented systematic prospecting operations from being carried on on many promising shows in the outlying fields.

The prospects for the year 1898 are, however, bright and hopeful. In the immediate vicinity of Cobar the copper syndicate have recently added another 60-ton water-jacket furnace to the number already in use, which necessarily means increased labour and output.

Large interests in the Peak Silver-Gold Mines have also been acquired by this syndicate lately, and these mines are being systematically prospected, with gratifying results.

The Chesney and Fort Bourke Mines, previously referred to, present enormous possibilities, containing as they do immense bodies of ore carrying both copper and gold in payable quantities. There is hardly any doubt that if these mines are judiciously managed they will probably give employment to some hundreds of workers.

During the year copper ore has been found in the Occidental, Young Australian, Great Western, and Berribungie Mines, which are now being worked for gold, and the presence of copper seems to establish beyond all reasonable doubt the existence of large and in most instances of payable copper and gold ores for a distance of over 4 miles on the Cobar reefs.

At Florida, 30 miles in an easterly direction from Cobar, the Anglo-Australian Exploration (Limited) have lately purchased several gold mining leases, and have now some sixteen men employed in sinking two shafts and prospecting works. A lode, varying from between 3 to 10 feet wide has been exposed for a considerable distance on this property carrying gold in fair quantities.

Two other parties are also prospecting in this district, viz., Budd and Smith, and Prendergast. The prospects of this portion of the district are encouraging.

At Restdown, which is quite a new field, situated about 35 miles south from Cobar, some thirty or forty prospectors are working on small but well defined gold reefs. Two or three trial crushings were recently made at Cobar resulting in a return of over 1 oz. to the ton. Some fifty leases have been applied for in this locality during the year, and it is expected that most of them will be working as soon as a good rain has fallen. About 520 men are employed throughout the Division mining for gold.

Mount Drysdale Division.

The output of gold from the mines at Mount Drysdale has not been so great as during 1896. The mines are very patchy but easily worked. There is no present indication that any improvement may be expected in this Division during the coming year.

Gilgunnia Division.

There is a decided increase in mining activity at this field, and some of the mines have improved, and two more claims have been added to the list, crushing with payable results. The total quantity of gold won is 900 oz., as compared with 621 oz. for the preceding year. It is said that some of the claims at Four-mile have had small crushings which went over an ounce per ton. Several grants have been made from the Prospecting Vote to thoroughly test this field. No new finds of importance have, however, been made in this locality, but as prospecting operations are being carried on in the neighbourhood with fair prospects, fresh discoveries of some moment may be reported at any time.

Nymagee Division.

At the Overflow Company's mine good solid work has been done; the main shaft (a large three-compartment shaft) has been sunk to a depth of 100 feet, and drives have been extended to connect with the other workings; a good winding plant has been erected, and a cyanide plant is almost completed; some 2,500 tons of ore are already at grass, and everything is ready for treating the stone from this promising property on a fairly large scale. During the year a township has been surveyed near this property and named "Bobadah," and it boasts of a population of about 300.

Prospecting work is also being carried on for copper, silver, tin, and gold in many parts of this Division, with varying results.

ALBERT

ALBERT MINING DISTRICT.

Milparinka Division.

There is a great falling off in work done and of gold won in this Division as compared with previous years, arising from the long continued drought which has prevailed now for the last three years. There has not been a general rainfall during that period. Some slight showers fell, but there has not been a supply of water sufficiently plentiful to be of any real service to the miners during that period to allow of them mining to advantage. Water and feed have been so scarce that many have left the field to look for work elsewhere.

The drought had become so intensified and general throughout the district that some alarm was caused. Later accounts show that the late copious rainfall extended to this field—the fall averaging from 5 to 8 inches.

There were about sixty gold leases in force during the early part of the year, but as the proprietors were nearly all poor miners, they could not fulfil the labour conditions, and more than one half were cancelled whilst others were declared void from the leases not being executed.

None of the leases have been developed; there has been no sinking on any of them to any depth; the principal work has been in open cuttings, following the course of small leaders as erasing from an inch to 3 inches, carrying good free gold, but not payable. Such leaders intersect all the ground on the fields; no true reef has yet been opened out. There has only been six or eight trial crushings, done at the public battery, none of which were up to owners' expectations, being under an ounce to the ton, when the proprietors became disheartened and would not carry on work.

The battery is now shut down, it being impossible to draw firewood owing to no feed for horses, with an insufficient supply of water. Further, the lease owners were unable to cart stone to the battery to keep it in work. There is now about 50 tons of stone at grass ready to crush.

Alluvial mining in the Division was brought to a complete standstill through the dry weather, but a few men are trying dry-blowing, by which they make a bare living.

This field can hardly be considered a true alluvial field, as there has not yet been a defined lead of gold discovered. It is massive gold, very patchy, and found in small pockets that soon cut out when it may require much dead work before another pocket is found.

Tibooburra Division.

Owing to the great drought mining operations in this Division, as at Milparinka, have been greatly retarded. The miners, about 100 in number, have managed, however, to win 814 oz. of gold, which, under the circumstances, is very creditable. As the year 1898 opened with a general rain, a larger increase in the return may be expected. The alluvial gold won on this field is spread all through the soil near the surface, and the sinking is seldom over 2 feet deep. When water is scarce dry blowing is resorted to.

Broken Hill Division.

This is essentially a silver-mining district, and the only gold won during the year was by The Broken Hill Proprietary Silver-mining Company, who, in connection with their silver smelting operations, saved 3,326 oz. of gold at their Broken Hill works, 738 oz. at their works at Port Pirie, or a total of 4,064 oz. The quantity saved by the company during 1896 was 4,389 oz. The Diamond Jubilee Mining Company tested 20 tons of ore from their leases in the parish of Robie, which yielded 16 dwt. of gold per ton, and 7 per cent. copper. Two areas have been applied for as gold-mining leases on this company's mineral leases.

I am indebted to J. MacDonald Cameron, Esq., F.I.C., the Deputy Master of the Royal Mint, for the following information:—

QUANTITIES of Gold, the produce of New South Wales, received into the Royal Mint, Sydney, during 1896 and 1897, compared.

District.	Division.	1896	1897.	Increase.	Decrease.
		OZ.	OZ.	OZ.	OZ.
Bathurst	Bathurst	1,561·36	1,447·65	...	113·71
	Carcoar	3,031 49	1,245 06	..	1,786 43
	Orange	2,953 46	1,048 26	.	1,905 20
	Trunkey Creek	160 64	52 03	.	108 61
	Tuena	103 26	30 56		72 70
	Mount M'Donald	293 02	1,627 84	1,334 82	...
Tambaroora and Turon ..	Hill End	1,112 57	1,828 39	715 82	..
	Tambaroora	54 34	263 58	209 24	..
	Sofala	2,178 39	3,727 39	1,540 00	..
	Stony Creek .....	..	1,083 75	1,083 75	...
Mudgee	Mudgee	5,273 77	4,626 39		647 38
	Gulgong	2,495 73	2,447 49		48 24
	Hargraves .....	..	45 61	45 61	..
	Wellington	2,030 36	2,574 51	544 15	..
Lachlan	Parkes	8 881 73	11,117 76	2,236 03	...
	Foibles	13 35	27 82	14 47	..
	Grenfell	1,245 41	1,008 23	..	237 18
	Young	1,296 41	897 53	..	398 88
	Temora ..	624 82	128 45	..	496 37
Albert ..	Wilcanna ..	1,137 67	875 48	..	262 19
Southern ..	Goulburn ..	568 67	1,375 84	807 17	..
	Braidwood ..	3,226 81	4,042 74	815 93	..
	Araluen ..	25 92	..	..	25 92
	Nerrigundah ..	463 60	420 01	..	43 59
Tumut and Adelong ..	Adelong ..	176 82	455 39	278 57	..
	Tumut ..	375 89	188 58	..	187 30
	Cootamundra ..	37 42	342 25	304 83	..
	Tumbarumba ..	2,519 33	1,861 26	..	658 07
	Gundagai ..	2,402 36	1,800 49	..	601 87
	Cooma ..	1,082 35	801 52	..	280 83
	Kiandra ..	88 26	29 02	..	59 24
	Wagga Wagga ..	103 02	102 21	..	81
Peel and Uralla ..	Armidale ..	9,866 82	18,266 05	8,399 23	..
	Rocky River ..	83 66	..	..	83 66
	Nundle ..	11 70	..	..	11 70
	Tamworth ..	449 39	729 96	280 57	..
	Bingara ..	1,303 69	730 81	..	572 88
Hunter and Macleay	Copeland ..	126 92	188 69	61 77	..
Clarence and Richmond	Grafton ..	1,776 26	2,992 69	1,216 43	..
New England ..	Tenterfield ..	2,392 83	1,712 74	..	680 09
Mixed ..	Western, Northern, and Southern.	34,342 73	22,747 55	..	11,595 18
Localities unknown ..	..	107,463 96	108,522 97	1,059 01	..
	Total ..	203,336 19	203,414 55	20,956 40	20,878 04

SUMMARY.

District.	1896.	1897.
	oz.	oz.
Bathurst	8,103·23	5,451·40
Tambaroora and Turon	3,345·30	6,903·11
Mudgee	9,799·86	9,694·00
Lachlan	12,061·72	13,522·04
Albert	1,137·67	875·48
Southern.....	4,285·00	5,838·59
Tumut and Adelong.....	6,785·45	5,238·47
Peel and Uralla.....	11,715·26	19,726·82
Hunter and Macleay	126·92	188·69
Clarence and Richmond	1,776·26	2,992·69
New England.....	2,392·83	1,712·74
Mixed—Western, Northern, and Southern.....	34,342·73	22,747·55
Localities unknown	107,463·96	108,522·97
	203,336·19	203,414·55

From the above table it will be seen that the quantity of gold sent to the Mint in 1897 exceeded that sent in 1896 by only 78·36 oz. The large quantity received under the heading of "Localities unknown," is principally gold bought by the Bank of New South Wales. The bank makes no note of the districts from which the gold is won.

The following table is compiled from information kindly furnished by the Collector of Customs:—

EXPORT OF GOLD, 1897.

Gold.		Quartz Tailings and Pyrites.		Total.	
Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
oz.	£	Packages.	£	oz.	£
104,319	403,258	26,478	60,005	119,555	463,263

The system adopted by the Department in arriving at the output of gold for the year is to add the quantity received at the Royal Mint to that exported through the Customs, deducting, of course, the quantity exported by the Mint which appears in the Customs Return. The following figures show how the yield for the year is arrived at:—

	oz.	£	s.	d.
Gold exported in bars, dust, quartz, and concentrates	119,555·0	463,263	0	0
Gold received by the Mint, the product of the Colony... ..	203,414·55	755,306	7	9
	322,969·55	1,218,569	7	9
Less the quantity exported by the Mint through the Customs	30,752·00	130,156	0	0
Estimated yield for 1897	292,217·55	1,088,413	7	9
The yield for the year 1896 was	296,071·19	1,073,360	4	7

Arrangements were completed early in the year whereby the Department was enabled to issue quarterly returns of the gold won within the Colony, and the figures are forwarded to the Agent-General in London for publication. The following statement gives the yield for each quarter:—

	oz.	£
Quarter ending 31st March	63,633	238,611
„ 30th June	63,616	238,786
„ 30th September	94,991	351,803
„ 31st December	69,977	259,213
	292,217	1,088,413

The gold received at the Mint during the quarter ending the 31st December was only 52,375 oz., or 42,616 oz. less than during the quarter ending 30th September, and also less by 22,328 oz. than the corresponding period of 1896.

RETURNS

RETURNS of Gold for 1897 from Mint and Mining Registrars compared.

District	Mint.	Mining Registrars.	Excess.	Deficiency.
	oz.	oz.	oz.	oz.
Bathurst	5,451·40	31,936	.. . . .	26,484·60
Tambaroora and Turon	6,903·11	11,060	.. . . .	4,156·89
Mudgee	9,694·00	26,939	.. . . .	17,245 00
Lachlan	13,522·04	65,207	.. . . .	51,684·96
Albert	875 48	5,129	.. . . .	4,253 52
Southern	5,838 59	16,521	.. . . .	10,682·41
Tumut and Adelong	5,238·47	30,665	.. . . .	25,426·53
Peel and Uralla	19,726·82	43,392	.. . . .	23,665·18
Hunter and Macleay	188 69	1,394	.. . . .	1,205 31
Clarence and Richmond	2,992·69	14,386	.. . . .	11,393 31
New England	1,712·74	5,535	.. . . .	3,822·26
Cobar		27,211	.. . . .	27,211·00
Mixed—North, South, and West	22,747·55	.. . . .	22,747 55	.. . . .
Localities unknown	108,522 97	.. . . .	108,522·97	.. . . .
	203,414·55	279,375	131,270·52	207,230 97
				131,270·52
The returns from Mining Registrars exceed returns from Mint by				75,960·45

From the foregoing table it will be seen that the return furnished by the Mining Registrars exceeds the quantity received at the Mint by 75,960, but is only 12,642 oz. less than the total yield for the year. This may be considered satisfactory, in view of the fact that these officers have to obtain the information from mines extending over a very large area. The difference in their figures and the total yield, as computed in Sydney, may be accounted for by the gold which is sent out of the district in the form of matte, in copper and other ores, but which must be accounted for at the Customs, if exported; or, if the ore is treated in New South Wales, the gold ultimately reaches the Sydney Mint.

MINING Registrars' Returns of Gold for 1896 and 1897 compared.

District	1896	1897	Increase.	Decrease.
	oz.	oz.	oz.	oz.
Bathurst	43,686	31,936	.. . . .	11,750
Tambaroora and Turon	12,281	11,060	.. . . .	1,221
Mudgee	28,925	26,939	.. . . .	1,986
Lachlan	64,855	65,207	352	.. . . .
Albert	6,323	5,129	.. . . .	1,194
Southern	19,059	16,521	.. . . .	2,538
Tumut and Adelong	16,157	30,665	14,508	.. . . .
Peel and Uralla	54,003	43,392	.. . . .	10,611
Hunter and Macleay	1,441	1,394	.. . . .	47
Clarence and Richmond	6,092	14,386	8,294	.. . . .
New England	6,360	5,535	.. . . .	825
Cobar	29,400	27,211	.. . . .	2,189
	288,582	279,375	23,154	32,361
Less Increase . . . . .	.. . . .	.. . . .	.. . . .	23,154
Decrease in yield for 1897 . . . . .	.. . . .	.. . . .	.. . . .	9,207

The foregoing table compares the returns sent in by the Mining Registrars for 1896-7, and shows a decrease of 9,207 oz. on the returns for 1896. The actual decrease as shown elsewhere is, however, only 3,854 oz.

COMPARATIVE Statement of Average Yields from Alluvial Mines for 1896-97.

1896				1897			
District	Quantity.	Average per ton	Yield of Gold	District.	Quantity.	Average per ton.	Yield of Gold.
Bathurst	loads	oz dwt gr	oz dwt gr	Bathurst	loads	oz dwt gr	oz dwt gr.
Lachlan	5,228	0 11 0	131 7 0	Lachlan	5,534	0 11 6	3,112 17 13
Tumut and Adelong	817	0 4 12	184 6 0	Tumut and Adelong	9,552	0 2 18	1,314 0 0
Southern	120,524	0 0 6	1,465 13 0	Southern	122,460	0 0 8	2,041 0 0
Mudgee	350	0 0 9	6 11 22	Mudgee	4,000	0 5 0	1,000 0 0
Peel and Uralla	1,560	0 3 0	234 0 0	Peel and Uralla	1,984	0 2 12	248 0 0
	1,500	0 0 5	16 0 0		2,000	0 0 7	29 3 8
	129,979	0 0 7 5	2,037 17 22		145,530	0 1 1 5	7,745 0 20

Note.—The above Table only shows the yield where the quantity of stuff treated is ascertainable.

COMPARATIVE

COMPARATIVE Statement of Average Yields from Quartz-mines for 1896-97.

District.	1896.			District.	1897.		
	Quantity.	Average per ton.	Yield of Gold.		Quantity.	Average per ton.	Yield of Gold.
	tons.	oz. dwt. gr.	oz. dwt. gr.		tons.	oz. dwt. gr.	oz. dwt. gr.
Bathurst	18,237	1 13 15	30,301 7 15	Bathurst ..	17,655	0 17 8	15,323 10 23
Tambaroora and Turon ..	4,232	0 13 6	2,892 13 3	Tambaroora and Turon	5,500	0 14 3	3,890 0 0
Lachlan	36,787	1 6 6	48,286 4 20	Lachlan	44,997	1 1 7	47,957 0 0
Southern	17,025	0 6 9	5,446 3 17	Southern	15,500	0 8 21	6,895 10 0
Tumut and Adelong	6,160	0 8 12	2,626 12 14	Tumut and Adelong ..	13,468	0 17 6	11,615 10 9
Peel and Uralla	47,551	0 14 11	34,388 10 0	Peel and Uralla ..	48,235	0 14 16	35,421 12 10
Hunter and Macleay ..	470	0 17 0	401 10 0	Hunter and Macleay ..	1,740	0 11 13	1,009 13 0
Clarence and Richmond ..	1,729	0 17 17	1,539 11 0	Clarence and Richmond	11,200	1 3 4	12,980 10 0
Mudgee	21,399	0 12 11	13,319 10 0	Mudgee	24,761	0 13 0	16,142 19 3
Cobar	3,129	0 9 17	1,541 11 0	Cobar	1,750	0 5 3	450 0 0
New England	2,119	0 9 14	1,018 17 0	New England.....	4,865	0 18 11	4,500 0 0
	158,838	0 17 20	141,762 10 21		189,671	0 16 11	156,186 5 21

Note.—This Table only shows the yield of gold where the quantity of stone treated is ascertainable.

The two preceding tables, showing the average yields from the alluvial and quartz mines in the Colony, are unfortunately not as complete as desired. The difficulty of obtaining the necessary data for this compilation has been drawn attention to in nearly every Report issued by the Department. The miners do not take the trouble to keep a record of their operations, and, in many cases, they decline to make their returns public. Until they see their way to assist the Department in the manner required, there is little hope of the information in these tables being as complete as they ought to be.

The number of miners employed in gold-mining during the year was as follows:—

	1896.	1897.
Alluvial	9,228	8,028
„ (Chinese)	710	1,002
Quartz	12,069	12,256
	<u>22,007</u>	<u>21,286</u>

This is a reduction of 921 on the total number employed during 1896. As a large number of the men working the alluvial ground are practically fossickers, who take to this mode of earning a living when other employment fails, their number is liable to sudden fluctuation. There is an increase in the number of quartz-miners employed of 187.

Dividing the quantity of gold won, viz., 292,217 oz., by the total number of men employed, viz., 21,286, it shows that each man on an average won 13.21 oz., valued at £51 2s. 7d. This is a very few shillings less than the average earnings for 1896. But when the fact is taken into account that a number of the men follow other pursuits during a portion of the year it will be seen that this method of arriving at the actual earnings of the gold-miners can be taken only as a rough approximation. Further, no allowance is made in the calculation for the expenses incidental to mining.

COAL.

The total output of coal for 1897 is actually the largest since the opening of our coal-fields in 1829, the increase for the year being 474,074 tons over the output for the previous year. The total output, as shown in the following table, was 4,383,591 tons, as against 3,909,517 tons in 1896. It is very satisfactory to note that our foreign and intercolonial export trade have both recovered from the severe shock they received from the lamentable strike in 1890. The table shows that the Colony has at last fully recovered the ground lost at that time, and our foreign and intercolonial trade was larger last year than it has ever been.

There is every indication that 1898 will be a record year so far as the coal trade is concerned.

Good progress has been made during the year at the Sydney Harbour Colliery Works, Balmain. The surface excavations for the site of colliery works and machinery are all but completed, the level area having been largely increased by filling in the space enclosed by the large retaining-walls which have been erected fronting the harbour.

The work of shaft sinking was begun in the "Downcast" shaft on May 24th, and in the "Upcast" shaft on 22nd June, the winding of the *débris* being carried out by two 5-ton steam cranes pending the arrival

arrival of boilers from England and the erection of the regular sinking plant. By this means, the shafts were sunk a distance of 150 feet and 230 feet, and "walled" a distance of 120 feet and 200 feet respectively. The "Downcast" shaft is named "Birthday," and the "Upcast" shaft "Jubilee."

There is now being erected, for the completion of the "Birthday" shaft sinking, a pair of winding engines, having cylinders 28 in. diameter by 5 ft. stroke, and drum 14 ft. diameter, while those being erected at the "Jubilee" shaft have cylinders 30 in. diameter by 5 ft. stroke, with drum 13 ft. diameter. There are also being seated five Lancashire boilers, each 30 feet long by 8 feet diameter, and the permanent ventilating fan (one of Walker's patent) 24 feet diameter by 8 feet wide, which will be used to ventilate the shafts while sinking.

Along the reclamation limit line a concrete quay wall 580 feet long is being built, with a depth of water 25 feet at low tide fronting it.

At the 31st December, 1897, there were 87 coal and 5 shale mines under inspection, which is a decrease of 9 coal mines as compared with 1896. The number of shale mines at work are the same.

QUANTITY and Value of Coal raised from the opening of the Coal-seams to 1857, inclusive.

Year.	Quantity.	Average per ton	Value.	Year	Quantity.	Average per ton.	Value.
Prior to		£ s. d.	£			£ s. d.	£
1829	50,000	0 10 0 00	25,000	1844	23,118	0 10 8 34	12,363
1829	780	0 10 1 23	394	1845	22,324	0 7 10 27	8,769
1830	4,000	0 9 0 00	1,800	1846	38,965	0 7 0 46	13,714
1831	5,000	0 8 0 00	2,000	1847	40,732	0 6 9 01	13,750
1832	7,143	0 7 0 00	2,500	1848	45,447	0 6 3 38	14,275
1833	6,812	0 7 6 73	2,575	1849	48,516	0 6 0 45	14,647
1834	8,490	0 8 10 00	3,750	1850	71,216	0 6 6 77	23,375
1835	12,392	0 8 10 19	5,483	1851	67,610	0 7 6 51	25,546
1836	12,646	0 9 1 06	5,747	1852	67,404	0 10 11 33	36,885
1837	16,083	0 9 8 81	7,828	1853	96,809	0 16 1 51	78,059
1838	17,220	0 9 9 05	8,399	1854	116,642	1 0 5 63	119,380
1839	21,283	0 9 9 73	10,441	1855	137,076	0 12 11 96	89,082
1840	30,256	0 10 10 86	16,498	1856	189,960	0 12 4 06	117,906
1841	34,841	0 12 0 00	20,905	1857	210,434	0 14 0 97	148,158
1842	39,900	0 12 0 00	23,940				
1843	25,862	0 12 6 54	16,222				
					1,468,961	0 11 10 72	869,391

TABLE showing the Quantities and Average Value per ton of Coal exported to Intercolonial and Foreign Ports respectively, the Quantity of Coal consumed in this Colony, and the Average Price per ton of the total output of the Collieries, from 1858 to 1897 inclusive.

Year.	Exports to Intercolonial Ports.			Exports to Foreign Ports			Total Exports.			Home consumption	Total Output and Value		
	Quantity	Average per ton	Value.	Quantity	Average per ton	Value	Quantity	Average per ton	Value.		Quantity	Average per ton	Value
	tons	£ s d	£	tons	£ s. d	£	tons	£ s d	£	tons	tons	£ s d	£ s. d.
1858	101,488	0 15 1 67	76,824	12 039	1 0 1 85	12,132	113 527	0 15 8 05	88,956	102,870	216,397	0 14 11 84	162,162 0 0
1859	129,586	0 14 6 67	94,312	44,349	0 17 5 27	38,672	173,935	0 15 3 49	132,984	134,278	308,213	0 13 3 14	204,371 0 0
1860	140,183	0 14 10 85	104,471	93,694	0 16 11 10	79,290	233,877	0 15 8 57	183,761	134,985	368,862	0 12 3 36	226,493 0 0
1861	157,278	0 15 2 25	119,433	50,502	0 16 5 37	41,532	207,780	0 15 5 92	160,965	134,287	342,067	0 12 9 02	218,230 0 0
1862	195,427	0 15 0 55	147,019	113,305	0 17 4 34	98,403	308,782	0 15 10 75	245,422	167,740	476,522	0 12 9 73	305,234 0 0
1863	213,909	0 13 8 40	146,532	88,129	0 17 10 10	73,649	298,088	0 14 9 30	220,181	135,851	434,889	0 10 10 66	236,230 0 0
1864	283,539	0 10 3 74	146,199	84,227	0 14 10 90	66,289	372,466	0 11 4 91	212,488	176,546	549,012	0 9 10 10	270,171 0 0
1865	292,604	0 9 11 83	146,129	90,304	0 15 0 79	68,029	382,968	0 11 2 20	214,158	202,564	585 525	0 9 4 43	274,308 0 0
1866	344,194	0 9 2 98	159,175	196,711	0 14 4 53	141,413	540,900	0 11 1 37	300,588	233,333	774,238	0 8 4 44	324,049 0 0
1867	312,101	0 9 4 35	146,111	161,256	0 13 3 47	107,148	473,357	0 10 8 40	253,259	296,655	770,012	0 8 10 79	342,659 0 0
1868	329,052	0 9 5 76	155,970	218,984	0 12 5 29	136,226	548,036	0 10 7 96	292,201	406,195	954 231	0 8 9 08	417,805 0 0
1869	340,466	0 8 9 07	149 059	255,067	0 11 3 31	149,136	595,553	0 10 0 16	298,195	324 221	919,774	0 7 6 32	346,146 0 0
1870	335,504	0 8 6 02	142,656	242,825	0 10 3 57	129,025	578,389	0 9 3 07	267,681	290,175	868,564	0 7 3 54	316,836 0 0
1871	378,891	0 8 6 91	162,470	186,538	0 10 1 22	94,320	565,429	0 9 0 95	256,690	338,355	898,784	0 7 0 47	316,240 0 0
1872	394,052	0 8 8 11	170,947	275,058	0 9 11 46	136,914	660,110	0 9 2 42	307,861	343,316	1,012,426	0 7 9 92	396,198 0 0
1873	425,937	0 12 9 32	272,110	347,142	0 14 7 59	253,979	773,079	0 13 7 32	526,089	419,783	1,192,862	0 11 1 94	665,747 0 0
1874	467,583	0 13 8 30	390,119	405,442	0 15 4 76	312,128	873,025	0 14 5 81	632,247	431,587	1,304,612	0 12 1 37	790,224 0 0
1875	513,853	0 13 7 77	354,074	468,154	0 15 6 64	317,409	927,007	0 14 5 84	671,483	402,722	1,329,729	0 12 3 89	819,429 17 2
1876	542,952	0 13 8 45	372,045	325,866	0 15 6 45	253,166	868,817	0 14 4 70	695,211	451,101	1,319,918	0 12 2 06	803,300 5 6
1877	563,757	0 13 8 64	386,740	351,970	0 14 10 81	262,237	915,727	0 14 2 08	648,977	528,544	1,444,271	0 11 10 74	858,998 8 2
1878	623,323	0 13 8 77	427,954	383,097	0 14 7 69	230,452	1,006,420	0 14 0 93	708,406	569 077	1,575,497	0 11 8 23	920,936 7 4
1879	621,087	0 13 6 75	421,198	376,962	0 14 6 13	273,590	998,049	0 13 11 05	694,707	585,332	1,553,381	0 12 0 12	900,878 18 3
1880	550,672	0 11 2 67	309,004	202,684	0 11 5 70	116,295	753,356	0 11 3 48	425,299	712,824	1,466,180	0 8 6 36	615,336 11 7
1881	657,130	0 7 9 34	255,572	372,709	0 8 8 29	274,699	1,029,844	0 8 1 30	417,530	739,703	1,769 597	0 6 9 55	608,243 5 8
1882	760,226	0 9 9 54	372,334	501,319	0 10 11 50	361,896	1,261,540	0 10 3 09	647,033	847,737	2,109,232	0 8 11 97	943,965 0 0
1883	855,704	0 10 5 75	448 356	656,741	0 11 7 34	381,306	1,512,445	0 10 11 65	829,662	1,009,012	2,521,457	0 9 6 40	1,201,941 12 11
1884	994,087	0 10 8 66	532,938	696,676	0 11 4 16	398,107	1,690,763	0 11 0 15	931,045	1,058,346	2,749,109	0 9 5 71	1,303,076 19 11
1885	991,924	0 10 7 13	525,443	764,432	0 11 6 52	441,220	1,766,356	0 11 0 09	966,663	1,122,507	2,878,863	0 9 3 72	1,340,212 13 7
1886	1,027,775	0 10 7 22	544,824	708,090	0 11 4 31	441,379	1,738,856	0 10 10 93	947,002	1,094,310	2,830,175	0 9 2 53	1,303,164 4 1
1887	1,077,270	0 10 5 89	565,084	713,172	0 11 1 08	395,455	1,790,442	0 10 8 75	960,539	1,132,055	2,922,497	0 9 2 57	1,346,440 2 7
1888	1,039,764	0 10 10 25	564,293	884 108	0 11 3 77	500,179	1,923,872	0 11 0 78	1,064,472	1,279,572	3,203,444	0 9 1 02	1,455,198 4 1
1889	1,310,228	0 10 4 24	678,200	1,077,474	0 11 1 88	601,071	2,387,702	0 10 8 58	1,279,271	1,267,930	3,665,632	0 8 11 20	1,632,848 15 6
1890	1,149,544	0 10 6 96	608,108	872,330	0 11 0 31	379,065	1,821,874	0 10 10 04	987,173	1,239,002	3,600,876	0 8 4 29	1,279,088 19 5
1891	1,397,256	0 10 0 30	700,380	847,473	0 10 10 43	460,595	2,244,729	0 10 4 12	1,160,965	1,798,200	4,037,929	0 8 7 58	1,742,795 12 6
1892	1,318,008	0 10 8 89	587,016	873,697	0 10 1 24	441,379	2,191,705	0 9 4 61	1,028,395	1,089,263	3,780,968	0 7 8 82	1,462,388 9 4
1893	1,160,238	0 8 6 05	493,372	674,852	0 9 6 35	321,557	1,835,090	0 8 10 57	814,929	1,443,238	3,278,328	0 7 1 78	1,171,722 4 6
1894	1,175,072	0 7 1 73	419,371	950,053	0 8 1 26	385,018	2,125,125	0 7 6 88	804,769	1,546,951	3,672,076	0 6 3 53	1,155,573 7 10
1895	1,196,504	0 6 9 69	407,271	969,726	0 7 6 75	366,683	2,166,230	0 7 1 74	773,954	1,072,309	3,738,589	0 5 10 31	1,095,327 1 0
1896	1,371,796	0 7 0 34	482,096	1,103,111	0 7 6 98	418,163	2,474,907	0 7 3 30	900,264	1,434,608	3,909,517	0 5 9 08	1,125,250 16 7
1897	1,498,992	0 6 11 49	521,462	1,197,631	0 7 2 20	430,592	2,696,623	0 7 0 73	902,054	1,686,968	4,383,591	0 5 7 34	1,230,041 1 1
	27,244,081	0 10 0 13	13,637,056	18,578,668	0 10 11 71	10,196,483	45,822,759	0 10 4 82	23,833,539	29,374,144	75,196,896	0 8 6 70	32,179,981 18 7

COMPARATIVE Statement of Output of Coal in the Northern, Western, and Southern Districts for the last nine years, showing any increase or decrease as compared with previous years.

	1889.				1890.				1891.			
	Quantity		Value		Quantity		Value		Quantity		Value	
	tons	cwt qr	£	s. d.	tons	cwt qr	£	s. d.	tons	cwt qr	£	s. d.
Output, Northern District	2,624,347	3 0	1,261,224	16 5	2,120,046	6 1	995,931	2 6	2,853,251	13 1	1,354,028	12 8
Increase as compared with previous year	557,304	18 1	239,202	7 7	...	...	...	...	733,205	7 0	358,097	10 2
Decrease do do	.....	..	..	..	504,300	16 3	265,293	13 11	..	..	..	..
Output, Western District	329,713	3 0	81,459	1 1	343,232	3 2	65,995	3 0	346,804	13 0	74,104	17 10
Increase as compared with previous year	...	...	...	...	13,519	0 2	...	...	3,572	9 2	8,109	14 10
Decrease do do	9,881	6 0	13,677	1 11	..	..	15,463	18 1	..	..	..	..
Output, Southern District	701,572	0 0	290,164	18 0	597,598	0 0	217,162	13 11	837,873	0 0	314,662	2 0
Increase as compared with previous year	.....	...	...	...	...	...	...	...	240,275	0 0	97,499	8 1
Decrease do do	95,234	10 0	47,874	14 3	103,974	0 0	73,002	4 1	.....	..	..	..

	1892.				1893.				1894.			
	Quantity		Value		Quantity		Value		Quantity		Value	
	tons	cwt qr	£	s. d.	tons	cwt qr	£	s. d.	tons	cwt qr	£	s. d.
Output, Northern District	2,611,731	13 0	1,102,694	14 5	2,203,480	10 0	880,218	4 3	2,605,142	13 1	853,174	14 7
Increase as compared with previous year	241,520	0 1	251,333	18 3	408,251	3 0	222,476	10 2	401,662	3 1	2,956	10 4
Decrease do do	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..
Output, Western District	236,363	1 0	57,414	13 8	190,377	19 1	43,241	14 5	199,869	12 0	45,463	0 7
Increase as compared with previous year	110,441	12 0	16,689	4 2	45,985	1 3	14,172	19 3	9,491	12 3	2,221	6 2
Decrease do do	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..
Output, Southern District	932,873	0 1	302,279	1 3	884,469	18 0	248,262	5 10	867,063	19 0	226,935	12 8
Increase as compared with previous year	95,000	0 1	12,383	0 9	48,403	2 1	54,016	15 5	.....	..	21,326	13 2
Decrease do do	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..

	1895.				1896.				1897.			
	Quantity		Value		Quantity		Value		Quantity		Value	
	tons	cwt qr	£	s. d.	tons	cwt qr	£	s. d.	tons	cwt qr	£	s. d.
Output, Northern District	2,631,221	11 0	813,227	15 6	2,623,015	14 2	802,956	1 0	3,176,868	19 3	938,774	4 8
Increase as compared with previous year	26,078	17 3	69,946	19 1	8,205	16 2	10,271	14 6	553,853	5 1	155,818	3 8
Decrease do do	...	..	.....	..	.....	..	.....	..	.....	..	.....	..
Output, Western District ..	190,864	14 1	40,260	15 3	278,124	8 0	56,638	1 8	287,860	14 0	58,709	1 2
Increase as compared with previous year	9,004	17 3	5,202	5 4	87,259	13 3	16,377	6 5	9,736	6 0	2,070	19 6
Decrease do do	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..
Output, Southern and South-western Districts.	916,502	15 0	241,838	10 3	1,008,376	10 0	265,686	13 11	918,862	2 0	232,557	15 3
Increase as compared with previous year	49,438	16 0	14,902	17 7	91,873	15 0	23,848	3 8	89,514	8 0	33,128	18 8
Decrease do do	.....	..	.....	..	.....	..	.....	..	.....	..	.....	..

The average price of Coal in the several districts was as follows.—

	1896		1897		
	s	d.	s	d.	
Northern	6	1 46	5	10 92	a decrease of 0 2 54 per ton.
Western	4	0 87	4	0 94	an increase of 0 0 07 „
Southern and South-western ...	5	3 24	5	0 74	a decrease of 0 2 50 „

OUTPUT

Colliery.	District.	Persons Employed.							Total number of Persons.	Quantity.		Value.	
		Under Ground.			Above Ground.								
		Boys under 16.	Males above 16.	Total.	Boys under 14.	Boys of 14, under 16.	Males above 16.	Total.					
<i>Southern and South-Western District.</i>													
Bulli	Bulli	5	164	169	...	4	80	84	253	101,279	0 0	30,283	14 0
Bellambi	Bellambi	3	55	58	...	4	20	24	82	29,478	0 0	7,369	10 0
Coal Cliff	Coal Cliff .....	...	19	19	...	...	7	7	26	9,968	0 0	2,124	13 0
Corrimal	Corrimal	10	171	181	...	5	28	33	214	128,550	0 0	32,473	0 0
Collins	Bundanoon ..	...	6	6	...	...	5	5	11	3,282	0 0	1,066	12 0
Hill End	Bulli .....	...	1	1	...	...	...	...	1	504	0 0	75	12 0
Mount Pleasant	Wollongong ..	6	115	121	...	4	49	53	174	57,457	0 0	14,364	15 0
Mount Kembla	"	7	216	223	...	1	66	67	290	151,299	0 0	39,561	0 0
Metropolitan	Hellensburgh..	12	237	249	...	1	49	50	299	135,747	0 0	34,830	9 0
Osborne-Wallsend	Wollongong ..	1	155	156	...	1	35	36	192	67,468	2 0	19,176	10 3
South Bulli	Bellambi	29	226	255	...	7	43	50	305	165,887	0 0	36,056	0 0
South Clifton	Clifton	3	121	124	...	...	13	13	137	67,943	0 0	15,176	0 0
Totals .....	.....	76	1,486	1,562	...	27	395	422	1,984	918,862	2 0	232,557	15 3
<i>South-Western District (Shale).</i>													
New South Wales Shale and Oil Company	Hartley Vale... New Hartley...	...	20 50	20 52	...	...	8 50	8 50	28 102	7,361 5,988	5 2 0 0	9,201 7,485	5 0 0 0
Australian Kerosene Oil and Mineral Company	Genowlan	5	61	66	...	1	16	17	83	14,435	0 0	16,043	0 0
	Joadja .....	...	83	83	...	...	11	11	94	5,486	0 0	6,857	10 0
	Katoomba.....	2	23	25	...	4	17	21	46	820	0 0	1,025	0 0
		9	237	246	...	5	102	107	353	34,090	5 2	40,611	15 0

There were employed in and about the coal and shale mines of New South Wales during 1897 9,979 men, as compared with 9,460 during the previous year.

The total number of fatal accidents for the last twelve months were 16 as compared with 24 during 1896, and 63 non-fatal as against 62 during the same period.

The following table is intended to show that the safety of our mines can bear comparison with the coal-mines in the United Kingdom:—

SUMMARY of persons employed, number of fatal accidents (deaths), and ratios of the number of persons employed, and the number of fatal accidents in and about the "United Kingdom" and "New South Wales" Coal-mines, since 1874.

Year.	United Kingdom.				New South Wales.			
	Persons employed.	Lives lost by accident.	Persons employed per life lost.	Death-rate from accidents per 1,000 persons employed.	Persons employed.	Lives lost by accident.	Persons employed per life lost.	Death-rate from accidents per 1,000 persons employed.
1874	538,829	1,056	510	1·959	.....	5	.....	.....
1875	535,845	1,244	430	2·321	3,308	8	413	2·418
1876	514,532	933	551	1·813	4,084	4	1,021	0·979
1877	494,391	1,208	409	2·443	4,657	7	665	1·503
1878	475,329	1,413	336	2·972	4,792	8	599	1·669
1879	476,810	973	490	2·040	5,035	5	1,007	0·993
1880	484,933	1,318	368	2·718	4,676	8	584	1·710
1881	495,477	954	519	1·925	4,098	2	2,049	0·488
1882	503,987	1,126	447	2·234	4,487	12	373	2·674
1883	514,933	1,054	488	2·046	5,481	15	365	2·736
1884	520,376	942	552	1·810	6,227	14	444	2·248
1885	520,632	1,150	453	2·207	7,097	11	645	1·549
1886	519,970	953	545	1·833	7,847	29	270	3·694*
1887	526,277	995	529	1·890	7,998	94	85	11·752†
1888	534,945	888	601	1·666	9,301	15	620	1·612
1889	563,735	1,064	530	1·887	10,277	41	250	3·989‡
1890	613,233	1,160	529	1·891	10,315	13	793	1·260
1891	648,450	979	662	1·509	10,820	21	515	1·940
1892	664,300	982	676	1·478	10,910	8	1,364	0·733
1893	683,008	1,060	644	1·551	9,971	13	767	1·303
1894	705,240	1,127	626	1·598	9,126	7	1,303	0·767
1895	700,284	1,042	672	1·487	9,022	10	901	1·108
1896	692,684	1,025	676	1·480	9,460	24	394	2·537
1897	.....	.....	.....	.....	9,979	16	624	1·603

* Excessive number of falls of coal and Lithgow disaster caused this high death-rate.
 † Bulli catastrophe and excessive falls of coal caused this high death-rate.
 ‡ Hamilton pit crush, excessive falls of coal, and over-winding of four men at South Burwood sinking pit caused this high death-rate.

The following table shows that the coke manufacturing industry is in a thriving condition, the quantity and value of the output for the year being more than double that turned out during 1896. There is no doubt but the manufacturers now see the advisability of producing a first-class article, and if they adhere to that course there are great possibilities for the trade in the Australian colonies alone.

In the Northern District the Purified Coal and Coke Co., Newcastle, and the Singleton Coal and Coke Co., Singleton, are still the largest manufacturers, and in the Southern District large quantities are produced at the extensive works at Unanderra and Bulli.

TABLE showing the quantity and Value of Coke made in the Colony of New South Wales.

Year.	Quantity.				Total Value.
	Northern District.		Southern and Western Districts.		
	tons	cwt.	tons	cwt.	£ s. d.
1890	15,886	2	15,211	0	41,147 3 7
1891	9,474	2	20,836	5	34,473 5 10
1892	5,245	0	2,654	0	8,852 8 6
1893	12,262	0	5,596	0	20,233 2 0
1894	13,602	5	20,855	19	33,209 5 7
1895	11,326	8	16,304	0	24,683 5 0
1896	10,398	10	15,953	0	21,850 16 3
1897	21,012	0	43,190	0	45,391 18 0
Totals	99,206	7	140,600	4	229,841 4 9

The following table shows the quantity and value of Kerosene Shale produced during the years 1865 to 1897:—

Year.	Quantity.	Average price per ton.	Total Value.	Year.	Quantity.	Average price per ton.	Total Value.
	tons.	£ s. d.	£ s. d.		tons.	£ s. d.	£ s. d.
1865	570	4 2 5.47	2,350 0 0	1883	49,250	1 16 10.77	90,861 10 0
1866	2,770	2 18 10.48	8,150 0 0	1884	31,618	2 5 7.86	72,176 0 0
1867	4,079	3 14 9.21	15,249 0 0	1885	27,462	2 8 11.62	67,239 0 0
1868	16,952	2 17 7.11	48,816 0 0	1886	43,563	2 5 10.79	99,976 0 0
1869	7,500	2 10 0.00	18,750 0 0	1887	40,010	2 3 10.43	87,761 0 0
1870	8,580	3 4 3.18	27,570 0 0	1888	34,369	2 2 2.66	73,612 0 0
1871	14,700	2 6 3.91	34,050 0 0	1889	40,561	1 18 3.55	77,666 15 0
1872	11,040	2 11 11.91	28,700 0 0	1890	56,010	1 17 2.07	104,103 7 6
1873	17,850	2 16 6.55	50,475 0 0	1891	40,349	1 18 8.77	78,160 0 0
1874	12,100	2 5 1.48	27,300 0 0	1892	74,197	1 16 8.16	136,079 6 0
1875	6,197	2 10 2.22	15,500 0 0	1893	55,669	1 16 4.44	101,220 10 0
1876	15,998	3 0 0.00	47,994 0 0	1894	21,171	1 10 0.28	31,781 5 0
1877	18,963	2 9 0.81	46,524 0 0	1895	59,426	1 5 3.78	75,218 18 8
1878	24,371	2 6 11.40	57,211 0 0	1896	31,839	1 1 5.81	34,201 18 0
1879	32,519	2 1 1.96	66,930 10 0	1897	34,090	1 3 9.91	40,611 15 0
1880	19,201	2 6 7.03	44,724 15 0				
1881	27,894	1 9 2.59	40,748 0 0				
1882	48,065	1 15 0.00	84,114 0 0				
					929,424	1 10 5.92	1,835,325 0 2

Shale mining shows very little indication of any immediate improvement, and although prospecting work for new deposits has been actively carried on by the present companies and private individuals during the year, no new discoveries of any importance have been reported during the year. First-class shale finds a ready market in Europe, and the total quantity exported during the year was 21,930 tons, the value of which on board ship is given at £44,511. Some very promising seams are being opened up in the Capertee District, and appearances indicate that it is from this locality that the Colony must look for the bulk of future supplies.

SILVER AND LEAD.

During the year the extensive silver-mining operations at Broken Hill, in the Albert Mining District, were responsible for serious loss of life, and especially was this so in the early part of June, when five fatalities were recorded in quick succession. These unfortunate accidents produced a feeling of doubt among certain of the public as to whether the miners of this district were working under conditions as favorable as should be expected; and when it was represented that accidents were on the increase, and that this was to a large extent due to incompetency and mismanagement on the part of the officers of the mines, and to the miner being required to work in places specially dangerous, the Government, recognising the importance of the matter, deemed it desirable that a thorough investigation should be made, and to that end His Honor Judge Murray was appointed as a Royal Commission to inquire—

1. Into the cause or causes of accidents which have recently taken place in certain mines and quarries in the Albert Mining District.

2. Whether the provisions of the Mining Act, 1874, and the Regulations relating to the inspection of mines other than coal or shale made thereunder, are sufficient to secure the safe working of the mines and quarries in the said district, especially in regard to the use of explosives and the system of timbering, and of working large lodes adopted. And, if they are not sufficient, to suggest in what respect and to what extent they should be added to, or amended.
3. Into the truth of the statement that the number of accidents in such mines and quarries has largely increased, and the cause of such large increase.
4. Whether the open-cut system of work is specially dangerous; and, if so, whether this is due to such work being carried on at night; and whether such system should be prohibited; and, if necessary, to suggest regulations for the purpose of safeguarding the lives of the miners and other persons employed in that class of work.
5. Whether the risk to the persons employed in the said mines and quarries is increased by reason of incompetency on the part of managers and subordinate officials.
6. Whether the services of additional inspectors are necessary.
7. As to the best means of making known to all persons employed in and about the said mines and quarries the statutory enactments and Regulations relating to the inspection of such mines and quarries; and to make any recommendation which he may deem advisable in the premises.

The Commissioner sat at Broken Hill, where the great bulk of the mining operations of the Albert Mining District is carried on, and inquired exhaustively into the above, and all other matters affecting the safety of workmen and others employed in and about the mines. In the report subsequently presented by the Commissioner, it is shown (*inter alia*) that the incompetency of men representing themselves as miners, and having no real knowledge of the work, had contributed very largely to the cause of accidents, but that there has been no appreciable increase in the number of accidents, nor have the men been required to work under specially dangerous conditions, or under officers wanting in competency; and that the appointment of an additional inspector is unnecessary. The Commissioner also deals in detail with the Regulations under the Mining Act, 1874, and suggests alterations and conditions which would make them more applicable to mining as carried out under the improved conditions of the present time. The report, together with the minutes of evidence, has been printed, and copies may be obtained from the Department.

QUANTITY and Value of Silver, and Silver-lead, and Ore exported.

Year.	Silver.		Silver-lead and Ore.				Total Value.
	Quantity.	Value.	Quantity.		Value.		
			Ore.	Silver-lead.			
	oz.	£ s. d.	tons cwt. qr. lb.	tons cwt.	£ s. d.	£	
1881	726,779 14	178,405 0 0	191 13 0 0	.....	5,025 0 0	183,430
1882	38,618 00	9,024 0 0	11 19 0 0	.....	360 0 0	9,384
1883	77,065 18	16,488 0 0	136 4 0 0	.....	2,075 0 0	18,563
1884	93,660 25	19,780 0 0	9,167 11 1 7	.....	241,940 0 0	261,720
1885	794,173 80	158,187 0 0	2,095 16 0 0	190 8	107,626 0 0	266,813	
1886	1,015,433 10	197,544 0 0	4,802 2 0 0	.....	294,485 0 0	492,029
1887	177,307 75	32,458 0 0	12,529 3 2 0	.....	541,952 0 0	574,410
1888	375,063 70	66,668 0 0	11,739 7 0 0	18,102 5	1,075,737 0 0	*1,142,405	
1889	416,895 35	72,001 0 0	46,965 9 0 0	34,579 17	1,899,197 0 0	1,971,198	
1890	496,552 80	95,410 0 0	89,719 15 0 0	41,319 18	2,667,144 0 0	2,762,554	
1891	729,590 05	134,850 0 0	92,383 11 0 0	55,396 3	3,484,789 0 0	3,619,589	
1892	350,661 50	56,884 0 0	87,504 15 0 0	45,850 4	2,420,952 0 0	2,477,836	
1893	531,972 00	78,131 0 0	155,859 1 0 0	58,401 3	2,953,589 0 0	3,031,720	
1894	846,822 00	94,150 0 0	137,813 8 0 0	42,513 2	2,195,339 0 0	2,289,439	
1895	550,142 00	81,858 0 0	190,192 19 0 0	29,687 7	1,560,813 0 0	1,642,671	
1896	202,789 00	26,518 0 0	267,363 1 0 0	19,573 4	1,758,933 0 0	1,785,451	
1897	150,005 00	16,711 0 0	270,913 14 0 0	18,105 7	1,681,528 0 0	1,698,239	
	7,573,530 62	1,336,067 0 0	1,379,389 8 3 7	363,718 18	22,891,434 0 0	24,227,601	

* NOTE.—In the Annual Report for 1888, 11,739 tons 7 cwt. of silver ore, valued at £164,620, was omitted from the table. The bulk of the silver is exported in the form of silver-lead.

The information for the following notes relating to silver-mining in New South Wales is gleaned from the reports sent in by the Wardens and Mining Registrars:—

THE ALBERT MINING DISTRICT.
Broken Hill Division.

The prosperity which prevailed in the silver-mining industry in this important Division during 1896 was continued during 1897, notwithstanding the severe checks sustained through the creep in the Junction Mine and the disastrous fire in Block 12. Though the price of silver declined slightly during the year, there is an increase of £341,916 in the gross value of the product of the field as compared with 1896. The increase in the value of lead has been an important factor in producing this result, and partially due to the increased output. The Broken Hill Proprietary Company's mine still holds premier position on the field, and employs on an average 2,300. The quantity of ore raised by the Company during the twelve

twelve months was 384,319 tons, and the total value of the product—viz., gold, silver, lead, and copper—was £1,287,732 4s. 10d. The fifteen furnaces in blast at this mine at the date of the outbreak of the fire in Block 12 were closed down on the 12th September, but seven were blown in again on the 24th of the same month, the remainder being dismantled. The next important mine—the Broken Hill Proprietary Block 10 Company (Limited)—raised 100,000 tons of ore, valued at about £430,000. This Company employ over 600 men. The Block 14 Company, which employs 600, raised 107,471 tons ore, valued at £400,000. The British Broken Hill Proprietary, 95,975 tons, valued at £223,061. This mine employs 500 men. The Broken Hill South Company employ on an average 360 men, and during the year raised 82,084 tons of ore, the gross value of which is estimated at £226,750. The Broken Hill Junction, 62,200, estimated to be worth £234,881. The North Broken Hill Company, 31,107 tons, valued at £154,326, and the Junction North Company, 18,200 tons, estimated value £126,881. These are the principal mines on the field, which altogether employ 5,950 men. During the first half of the year the number of men employed was 6,500, but owing to the big fire and the closing of the Broken Hill Proprietary Company's smelters a considerable reduction took place. The new smelting-works started by the Company at Port Pirie have no doubt absorbed a large number of these men. At the end of the year the population of the Division was 26,166, or an increase of 989 over the previous year. This shows that the district continues to advance in prosperity and importance, which is of course entirely due to the increased activity at the large silver mines previously referred to. The past year has not been a favourable one for the outlying mines from Broken Hill proper, but efforts are still being made to develop them, so far without any important results. The total value of the metals produced on the field is estimated as under:—

	£	s.	d.
Roasted sulphide of silver, 90 tons	57,761	1	0
Matte, 6,653 tons	116,119	18	11
Silver-lead bullion, 16,803 tons	720,189	11	6
Concentrates, 96,974 tons	1,023,053	5	3
Ore, 261,078 tons	1,435,333	6	0
Total for 1897	£3,352,462	2	8
„ 1896	£3,010,546	2	0
Net increase.....	£341,916	0	8

The total quantity of ore raised from the mines during the year is 1,011,961 tons, and the total quantity of silver won was 13,447,177 oz. These figures do not include the silver from new smelting-works of the Broken Hill Proprietary Company at Port Pirie, and as the bulk of the silver is exported in the form of silver-lead, they can only be taken as approximate. The Sulphide Corporation (Ashcroft's process), Limited, have taken over the Central Mine, and now employ about 650. The quantity of ore raised by them was 130,000 tons.

BATHURST MINING DISTRICT.

Cowra Division.

Prospecting operations are being carried on for silver deposits in this Division by Mr. C. A. Ashcroft, of Cockle Creek, who has some twenty men employed. It is said the prospects are fairly promising.

Mitchell Division.

The Sunny Corner Silver-mine has not been reopened since it shut down in December, 1896, consequently silver-mining in this locality is a dead letter for the present. There is no immediate prospect of this mine being restarted.

Orange Division.

At Lewis' Ponds the Smelting Company of Australia are carrying out some preliminary prospecting work by driving under Spicer's old workings. Some twenty men are employed on the work, and it is understood that the Company contemplate the erection of extensive works in the locality.

NEW ENGLAND MINING DISTRICT.

Fairfield (Drake) Division.

At the White Rock Silver-mine work has been steadily progressing during the past year, and considerable additions have been made to the mining and reduction works. At the mine a large building has been erected over the main shaft, and on the first floor is fixed two large rock-breakers, into which the ore is delivered when brought up the shaft. The crushed mineral is then passed on to another floor, where there are two sets of revolving sorting tables. When classed the ore is then to be passed through the "Wall" and "Chrom" rolls, of which there are two sets of each. The crushed ore will then be taken on trucks about a quarter of a mile to the chloridizing and lixiviation works. The Company are at present erecting three of Howell's roasting and chloridizing furnaces, and when completed the plant will be capable of treating 300 tons of ore per day. The main shaft at the mine has now been sunk to a depth of 180 feet, and driven about 60 feet north and south. 113 men are employed on this mine and works, and the value of the whole of the plant is estimated at £51,000.

It probable that about the middle of this year the White Rock Silver Reduction Works will be in full operation, which, it is to be hoped, will considerably increase the mineral products of this district.

Emmaville Division.

Silver to the value of £5,120 was won in this Division during the past twelve months.

Mining in this Division has fallen off to some extent, owing in a great measure to the low prices ruling for ore. The silver-mines at Webb's continue to be worked on an extensive scale, and apparently will continue for some years if the present prices ruling are maintained.

The Mount Galena Silver-mines have been granted suspension of labour for some time past, and, as a result, are idle.

The Silver Prince Silver-mine was taken up recently, but as yet no work of any kind, except a small shaft, has been done.

Deepwater Division.

About twenty men were employed in the vicinity of Castlerag by syndicates prospecting for silver ore, but no payable ore was raised during the year.

Wilson's Downfall Division.

Silver-mining at Rivertree has improved during the year. There are now about thirty men at work on good payable lodes. The ore is picked, bagged, and sent to Aldershot, Queensland; Cockle Creek, Newcastle; and Lake Illawarra; the returns from the two last-named works being more satisfactory to the miners, which is likely to command their trade. From the expense of forwarding the low-grade ore, of from 20 oz. to 40 oz. of silver is ignored, whereas, if there was machinery to treat the ore on the spot, there would have been a large return from this field. 75 tons have been forwarded for treatment, realising £1,884, by which it will be seen the ore is of high value. Mr. C. T. McDonald has taken up a mineral lease on the old Wangabah mine, and a shaft has been sunk 100 feet, and two tunnels have been driven 70 feet each. As they go down the ore improves, and the lode is more defined. Messrs. Jones, Barlow, and party, Qualy and party, and Thomas are working on good lodes, the average yield of silver being 220 oz. per ton of picked ore. Messrs. C. T. McDonald and Coulston and party are prospecting at Rivertree and Cullen's Creek. They are working on lodes, but as yet they have not had any ore treated. In Rivertree and the locality there is a marked improvement for the better on the previous year.

PEEL AND URALLA MINING DISTRICT.

Hillgrove Division.

The Ruby Silver-mine, at Rockvale, situated about 25 miles N.E. of Armidale, has been taken over by the New Zealand Mines Trust (Limited) conditionally, and is being vigorously prospected.

They are sinking three new prospecting shafts, and driving on the lode at the 100-foot level. A contract has been let for sinking the main shaft a further depth of 100 feet, and they are also prospecting several parallel lodes along the surface. No stone will be treated until the mine has been satisfactorily proved, and only such ore is taken out as is necessary to sink and drive, and is stored for future treatment. The ground passed through is being established by assay. A property known as Balser's Prospecting Area and another known as Silver Point have also been taken in hand by this Company, the development of which is to be proceeded with at once.

SOUTHERN

SOUTHERN MINING DISTRICT.

Rye Park Division.

The Wallah Silver-mine, which has been worked for several years, would, it is thought, pay if suitable machinery was erected on the ground. At the present time the ore has to be carted to the Yass Junction, 26 miles, and hence to Dapto by rail. There are deposits of fluxes in the immediate neighbourhood, and an abundance of several kinds of timber, such as ironbark, stringybark, box, gum, &c.

Captain's Flat.

The Lake George Mines, Limited, in addition to the gold, copper, and lead, won 93,372 oz. of silver in connection with their copper-smelting operations as compared with 70,000 saved during 1896. This Company employs 700 men. The Lake George Proprietary are developing their property at present, but will, it is said, reach the producing stage during the current year. The Lake George, North Mines, No Liability, are also in a similar position.

Moruya Division.

A few men are testing an argentiferous deposit in the vicinity of Moruya, but although fair specimens of ore were obtained nothing of a payable character has been struck so far.

Panbula Division.

Several promising gossan lodes are being tested in this Division, and twenty men are vigorously carrying on the work. A parcel of 146 tons were exported to Europe for special treatment, which is estimated to contain silver to the value of £3,100 and £264 worth of bismuth.

COBAR MINING DISTRICT.

Cobar Division.

Two mines at the Peak, viz., Messrs. Barrass and Connelly's and the "Conqueror," produced silver during the year to the extent of 121,251 oz., valued at £11,762. The ore was treated at the Great Cobar Company's works. This is the first report of silver in any quantity being won in this locality.

TIN.

The information contained in the following notes on the tin-mining industry is taken from the reports sent in by the Wardens and Mining Registrars.

PEEL AND URALLA MINING DISTRICTS.

Tingha Division.

There has been a falling off in the output of tin-ore produced during the last twelve months from this field of about 60 tons, the output being estimated at 402 tons, of a local value of £13,668, as compared with 500 tons, valued at £16,000, raised during 1896. The production of diamonds is estimated at 8,489 carats, of a local value of £3,000.

The European mining population has slightly increased during the last twelve months in the Division, but a falling off in the immediate vicinity of Tingha. The Chinese mining population is about the same as last year. The principal mines at present employing the most labour are the Elsmore Valley Tin-mining Co. and the Inverell Diamond and Tin Fields Co. (Limited). Both these Companies have upwards of fifty men employed. The general opinion is a large return may be expected from the diamond and tin mines situated at Boggy Camp, about 15 miles west of Tingha, during the present year, as there is apparently a fair amount of capital forthcoming to thoroughly test these mines.

The European mining population is estimated at 325. Over 100 of these are working on the tin and diamond mines. The Chinese are estimated at 100, making a grand total of 425 miners in all.

There is also an increase in the value of mining machinery in this Division, which in all amounts to the value of £4,880 10s.

Generally speaking, the mining industry in this Division may be said to be improving.

Glen Innes Division.

There has been about 66 tons of tin obtained during the year at Hogan's Creek, Big Flat, and Mount Mitchell, the price averaging about £28 per ton. Prospecting work is still being carried on vigorously.

Emmaville Division.

The quantity of tin won on the Emmaville field during the past year was 600 tons, valued at £20,000, only a slight falling off as compared with the output for 1896. Tin-mining is still carried on all over this Division by small parties of men and by men singly, but it is questionable if they average wages at the work. Numbers of Chinamen are leaving the field, which goes to show that the payable ground is worked out. The Glen Smelting Company at Tent Hill still continues to employ a large number of men. The Rose Valley Deep Lead Company won about 100 tons of stream tin for the year, valued at £36 5s. per ton, twenty men being employed. The depth of the deposit here is 132 feet, the wash averaging about 2 feet thick and 25 feet wide. The Ottery Mine is still working with good results. Several parties are still working at Vegetable Creek with varying success. There are 400 Europeans and 170 Chinese mining for tin within this Division.

NEW ENGLAND MINING DISTRICT.

Deepwater Division.

The quantity of tin won in this Division during the past twelve months was 250 tons, valued at about £8,000, taken principally from alluvial ground. The number of men employed is 125 Europeans and 30 Chinese.

Wilson's Downfall Division.

There has been a great falling off in the tin-mining industry in this Division compared with 1896, the tin ore won being 80 tons, valued at £2,592, which is a decrease of 70 tons as compared with the previous year. The decrease is due to the dry season, the low price of tin, and no new finds having been discovered for the year. The mining done has been of a fossicking character in abandoned workings, and many of the Chinese have left here for Texas, Queensland, tobacco-growing, owing to the low price of tin, which only averages £30 per ton on the field. From the failure of the tobacco crop at Texas many of the Chinese are returning to their old employment.

HUNTER AND MACLEAY MINING DISTRICT.

Kempsey Division.

About sixty men are engaged mining for tin in this Division, but so far none of the mines have turned out payable, although some of the parties have great hopes.

The Jubilee Tin-mining Company at Gundle has done more work than any of the others, but it may be said that it is in its infancy yet. This Company has sunk eight shafts to a depth of 30 feet, and have raised 700 tons of ore, which is valued at £700. The Company have imported machinery to the value of £1,900. This will include a 15-head battery with three Woodbury vanners.

Another tin-mine in the vicinity of Gundle is known as No. 4. At present they are only prospecting, although a great deal of work has been done. The Company has 600 tons of ore at grass, waiting to be treated. There are a few others in this locality, but nothing of any value has been struck.

The presence of a battery on the field, it is thought, will cause some of the mines to be developed.

Bendemeer

Bendemeer Division.

About nine men are still working the alluvial tin ground at Giant's Den, the output for the year being 11 tons 11 cwt., valued at £106 16s. 9d. Although prospecting work has been carried on during the year, no fresh payable tin-bearing deposits have been discovered.

COBAR MINING DISTRICT.

Gilgunnia Division.

At Euramby, which is situated 55 miles S.E. from Gilgunnia, Hogan and Party have recently had about 10 tons of ore from their Tin Mine treated at the Government Works, Clyde. The return was 4·83 per cent. of tin, besides showing the presence of other minerals, a result which is considered very satisfactory, when the immense bodies of stone that are exposed are taken into consideration.

TABLE showing the quantity and value of Tin exported from the Colony of New South Wales, since the opening of the Tin-fields in 1872.

Year.	Ingots.			Ore.			Total.			
	Quantity.		Value.	Quantity.		Value.	Quantity.		Value.	
	tons	cwt.	£	s.	d.	tons	cwt.	£	s.	d.
1872	47	0	6,482	0	0	849	0	41,337	0	0
1873	911	0	107,795	0	0	3,660	0	226,641	0	0
1874	4,101	0	366,189	0	0	2,118	0	118,133	0	0
1875	6,058	0	475,168	0	0	2,022	0	86,143	0	0
1876	5,449	0	379,318	0	0	1,509	0	60,320	0	0
1877	7,230	0	477,952	0	0	824	0	30,588	0	0
1878	6,085	0	362,072	0	0	1,125	0	33,750	0	0
1879	5,107	2	343,075	0	0	813	15	29,274	0	0
1880	5,476	6	440,615	0	0	682	6	30,722	9	0
1881	7,590	17½	686,511	0	0	609	6	37,492	0	0
1882	8,059	0	800,571	0	0	611	0	32,890	0	0
1883	8,680	1	802,867	0	0	445	4	21,685	0	0
1884	6,315	16	506,726	0	0	349	13	14,861	0	0
1885	4,657	18	390,458	0	0	534	18	25,168	0	0
1886	4,640	18	449,303	0	0	326	18	18,350	0	0
1887	4,669	8	509,009	0	0	291	13	16,411	0	0
1888	4,562	2	569,182	0	0	247	8	13,314	0	0
1889	4,408	13	403,111	0	0	241	15	12,060	0	0
1890	3,409	11	317,117	0	0	259	4	12,724	0	0
1891	2,941	5½	261,769	0	0	203	5	9,643	0	0
1892	3,253	0	301,541	0	0	239	2	12,573	0	0
1893	2,636	17	223,139	0	0	148	1	6,604	0	0
1894	2,611	5	179,445	0	0	190	7	7,752	0	0
1895	2,199	11	136,080	0	0	77	4	2,543	0	0
1896	1,710	4	99,212	0	0	96	19	2,905	0	0
1897	1,140	13	70,128	0	0	14	2	560	0	0
Total...	113,951	8	9,664,835	0	0	18,489	0	904,443	9	0

Includes tin refined both from New South Wales and imported ores.

COPPER.

PEEL AND URALLA MINING DISTRICT.

Barraba Division.

The Cornish Copper Mines at Gulf Creek were actively worked during the most of the first half of the year, but during most of latter half-year, suspension of labour conditions has been the order of the day.

Improved smelting arrangements have been made during the year, and tested with good results. About twenty-five men are employed in copper-mining in this locality.

Bingara Division.

Prospecting for copper lodes is very active in the vicinity of Upper Bingara, a few of the parties being in receipt of Government assistance. There has been no output so far.

Hillgrove Division.

During the year a valuable find of copper was made at Hall's Peak on the Chandler River, and eight leases have been applied for.

At the lease known as the Sunnyside Copper Mine, they have opened out the lode for a considerable distance. They have also driven a tunnel which shows the main lode from which assays made at the Mines Department went as high as 45 per cent. copper, 17 oz. silver, and 11 dwt. of gold per ton. This property is at present under offer to a company, and in the event of a sale taking place active operations will be carried on at once. Miller and Party have been actively engaged in opening out their lease, and by costeaning they came across a large body of mineral carrying rich veins of copper ore. They intend to cut a tunnel right across their ground.

TAMBAROORA AND TURON MINING DISTRICT.

Obely Division.

The Goodrich Gold and Copper Mining Company have started operations at Goodrich. The width of the lode is said to be close on 130 feet. A shaft is now being sunk on the lode to a depth of 150 feet, and the company at present employ fifteen men. There is every prospect of this mine developing into a permanent one.

Rylstone Division.

Prospecting operations for copper are being proceeded with in the neighbourhood of Rylstone, and it is said that very fair indications have been obtained.

SOUTHERN MINING DISTRICT.

Rye Park Division.

At Rye Park, about 20 miles from Yass, there are two parties of miners at work, one on a lead and silver lode, and the other on a copper lode. These men raise the ore and send it to the Dapto works for treatment, and it is said they are making more than good wages. These works at Dapto are a great boon for the working miner, if he would only take advantage of them. There are hundreds of small lodes of both copper and silver (or lead and silver) that would pay small parties of miners to take in hand, the same as they are doing at Rye Park. These lodes may be too small to tempt a company

Company to take them up, but they would pay good wages if worked by small parties of practical men. In former time it was useless to start such an enterprise without a large capital for smelting works, &c., and now all the men have to do is to raise the ore and despatch it to Dapto.

The Mayfield Copper Mine is still being worked by a party of four men. During the year the output was valued at £1,605. The main shaft is down 108 feet, and the lode averages 3 ft. 6 in.

Cooma Division.

About 1 mile from Bushy Hill a copper lode is being opened up which promises to become a valuable property. A bulk sample taken from a depth of 20 feet yielded 18 oz. silver, 8½ per cent. copper, and 1½ per cent. lead. Its position is ¼ miles from Cooma, on private property.

Kiandra Division.

The copper lodes at Lobb's Hole are again being opened up, and it is said a very fair ore is being exposed. Arrangements are being made to have a parcel sent to Sydney for treatment.

TUMUT AND ADELONG MINING DISTRICT.

Captain's Flat Division.

The Lake George Mines, Limited, is the most important copper mine in the Southern Mining District, and in addition to producing a large quantity of gold, silver, and lead, accounted for 336 tons of refined copper, or 131 tons more than the quantity produced the previous year. Several other mines are in course of being opened up in this Division, and it is expected that the output of copper from this District during the current year will be largely increased.

COBAR MINING DISTRICT.

Cobar Division.

The premier copper-producing mine in New South Wales is undoubtedly the famous mine at Cobar, owned by the Great Cobar Mining Syndicate, which produced during the past twelve months 2,461½ tons of refined copper, valued at £108,306, not including the value of the gold saved in connection with the copper-smelting operations. This company have a very complete plant at the mine, and refining works at Lithgow, erected on the most approved principles.

Mount Hope Division.

The Mount Hope Copper Mining Company's mine is being worked on tribute. The quantity of ore raised was 734 tons, which yielded copper valued at £5,340. The main shaft is now down 346 feet, and 40 men and boys are employed in and about the mine. The Great Central Copper Mine, situated at South Mount Hope, is also being worked by tributors, who have been engaged during the best part of the year in putting the mine in thorough repair, and in the erection of concentrating plant, consequently the output was limited, being only 1,200 tons of ore, valued at about £4,500. The number of men employed is 50.

Nyngan Division.

The Girilambone Copper Mining Company (no liability) employ about 200 men, and have a very complete plant, valued at £20,000. The copper-bearing formation is 500 feet wide, bearing 24° west of north, on which the Company has sunk a main shaft to 320 feet, and the mine is being further developed rapidly. During the past twelve months 17,154 tons of ore were raised, the copper contents of which was 733 tons. Refining has been commenced by the Company, and so far 173 tons of almost pure copper is the result.

MUDGE MINING DISTRICT.

Wellington District.

Numerous inquiries have latterly been made in this locality for areas likely to prove payable for copper mining, and several leases have been applied for. At the Bolara Copper Mine no work has been done during the year.

LACHLAN MINING DISTRICT.

Condobolin Division.

Some very promising copper lodes are now being opened up in the vicinity of Condobolin, several of the mines receiving aid from the Prospecting Vote. One of these parties, testing the old Condobolin Copper Mine, struck ore at the 44-foot level, yielding 19 per cent. of copper and 4 dwt. of gold per ton.

BATHURST MINING DISTRICT.

Bathurst Division.

A Bathurst syndicate has acquired 40 acres in the parish of Melrose, and have a party of men employed extending a drive in search of a copper lode. It is said the indications are very promising.

Rockley Division.

The old Summer Hill Copper-mine, near Rockley, is again being tried, and will probably be worked at a profit. During the year ore to the value of £500 was sent away.

Burrage Division.

The Burrage Copper-mine, owned and worked by Mr. Lewis Lloyd, has been working full time during the past year, employing about 150 men and boys, raising 8,907 tons of ore, estimated value of copper sold, £34,896 from this mine, which looks better for the past few months than it has for years. About 150 men find constant employment. Messrs. M'Kenny and Hall have a 40-acre lease, which they are working for copper, about 1 mile south of Burrage Mine. They are down with the prospecting shaft about 40 feet, and have a very fair show of copper.

Messrs. Stain, Cassalls, and party have a show for copper on their 40-acre lease, about 1½ miles south-east of the Burrage Mine; there is some very rich ore near the surface. The lode is small, which it is hoped will improve when depth is attained.

It is considered that there is a great future for this locality in copper-mining, but very little capital has been spent so far in prospecting the district for that metal.

Blayney Division.

Several parties have been prospecting for copper in the division, but without any successful result.

The old Annandale Copper-mine has been taken up by a syndicate, who are now unwatering the mine with the view of again working the old lodes. They are raising ore from the shaft known as Marks' with the view of having a trial smelting. So far they seem satisfied with the result of the ore raised. It is anticipated that within a very short time they will have 100 men employed in and about this mine.

ALBERT MINING DISTRICT.

Broken Hill Division.

During the year the Broken Hill Proprietary Company saved 1,161 tons of copper contained in matte, and 24 tons in roasted sulphide of silver, the total value of which was £56,880. A good deal of attention is being given to copper lodes outside of Broken Hill proper, but as the work done during the past twelve months has been principally development, the returns so far are very small.

TABLE showing the quantity and value of Copper exported from New South Wales, from 1858 to 1897.

Year.	Ingots.		Ore and Regulus.		Total.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1858	tons cwt.	£	tons cwt.	£	tons cwt.	£
1859	30 0	578	58 0	1,400	58 0	1,400
1860	.....	.....	.....	.....	30 0	578
1861	.....	.....	43 0	1,535	43 0	1,535
1862	.....	.....	144 0	3,390	144 0	3,390
1863	23 0	1,680	213 0	5,742	213 0	5,742
1864	54 0	5,230	114 0	420	137 0	2,100
1865	247 0	15,820	.....	.....	54 0	5,230
1866	255 0	18,905	22 0	545	269 0	16,365
1867	393 0	30,189	23 0	1,885	278 0	20,790
1868	644 0	23,297	0 2	5	393 0	30,194
1869	1,980 0	74,605	172 10	4,000	816 0	27,297
1870	994 0	65,671	104 0	2,070	2,084 0	76,675
1871	1,350 0	87,579	6 0	60	1,000 0	65,731
1872	1,035 0	92,736	94 0	1,297	1,444 0	88,876
1873	2,795 0	237,412	417 0	13,152	1,452 0	105,888
1874	3,638 0	311,519	51 0	1,690	2,846 0	239,102
1875	3,520 0	297,334	522 0	13,621	4,160 0	325,140
1876	3,106 0	243,142	157 0	4,356	3,677 0	301,690
1877	4,153 0	307,181	169 0	6,836	3,275 0	249,978
1878	4,983 0	337,409	360 0	17,045	4,513 0	324,226
1879	4,106 15	256,437	236 0	7,749	5,219 0	345,158
1880	5,262 10	359,260	36 7	915	4,143 2	257,352
1881	5,361 0	350,087	131 18½	4,799	5,394 8½	364,059
1882	4,865 3	321,887	132 16	4,975	5,493 16	353,062
1883	8,872 17	574,497	93 1	2,840	4,958 4	324,727
1884	7,286 6	415,601	84 10	2,704	8,957 7	577,201
1885	5,745 5	264,905	18 18	578	7,305 4	416,179
1886	3,968 18	166,429	0 15	15	5,746 0	264,920
1887	4,463 19	195,752	57 18	1,236	4,026 8	167,665
1888	3,786 1	272,110	299 8	3,350	4,763 7	199,102
1889	3,983 16	203,319	113 6	2,924	3,899 7	275,034
1890	3,165 9	163,537	198 4	3,322	4,182 0	206,641
1891	3,860 3	191,878	580 9	9,774	3,755 18	173,311
1892	3,535 0	160,473	665 8	13,215	4,525 11	205,093
1893	1,051 0	44,235	1,299 4	27,233	4,834 4	187,706
1894	1,556 11	61,034	1,016 0	14,191	2,067 0	58,426
1895	2,793 3	119,300	580 6	12,447	2,136 17	73,481
1896	4,453 0	200,236	1,058 0	21,585	3,851 3	140,885
1897	6,756 3	299,829	14 17	75	4,467 17	200,311
			166 5	851	6,922 8	300,680
	114,072 19	6,771,093	9,462 2½	213,827	123,535 1½	6,984,920

Includes copper refined from New South Wales and imported ores.

IRON.

The establishment of works for the manufacture of iron from the ores of the Colony received a check through the death of Mr. Joseph Mitchell, who had the formation of a company in hand. Mr. Mitchell visited Europe and received promises of support from several capitalists, and it was shortly after his return to this Colony that his death took place. The negotiations are still being carried on by his executors. It is said that a syndicate of Sydney gentlemen has been formed for the purpose of testing the iron-ore deposits at Curlewis Gap, and it is proposed to erect a small furnace and make a practical test. Large quantities of ironstone are being sent from Marulan, Orange, Newbridge, and Blayney to the Illawarra Works to be used as flux, the gold contents of the ore helping to pay the extra cost of railway carriage. A report by Mr. Geological Surveyor Jacquet on the iron-ore deposits at Seaham, will be found attached. Mr. Jacquet also took samples from an important bed of ironstone near Clarence Town which was, locally, supposed to contain, like the deposits at Ironstone Mountain, considerable quantities of titanitic acid, a most objectionable ingredient from a smelting point of view. These samples on being analysed in the Survey Laboratory yielded no titanitic acid in appreciable quantities. Nothing has yet been done to discover the width of the bed or beds, and subsequent investigation may show that valuable deposits of magnetic iron ore occur in the Raymond Terrace and Clarence Town Districts.

The Eskbank Iron Works still continue to produce a large quantity of finished iron. Mr. Sandford, the owner, states that during the year he turned out 3,239 tons, valued at £21,862. About 190 men and boys are employed in and about these works.

ANTIMONY.

The total quantity of antimony exported during the year was 169½ tons, valued at £3,612, as compared with 132¼ tons, valued at £1,834, exported during 1896. Antimony mining at Hillgrove, the principal mining centre for antimony in the Colony, is practically dead. The Hillgrove Antimony Mining and Smelting Company have not done any work during the year, and are not likely to resume operations while the price remains so low. The low price, combined with a limited demand, has practically stopped prospecting operations for antimony ores.

BISMUTH.

BISMUTH.

The value of the bismuth exported during the year was £800, and was got principally on the Pambula Gold-field. This is another metal for which there is little demand; consequently little attention is paid to it by the miners.

PLATINUM.

Platinum-mining in New South Wales was confined during the year solely to the Fifield Gold-field, where the metal is found associated with the gold in washdirt, the total yield for the year being 1,966 oz., as compared with 2,900 oz. in 1896. The want of water has been the great drawback to efficient mining on this field, and prevents the claims being worked more than half time.

CHROMIUM.

The chrome-mining industry cannot be said to be in a flourishing condition, the exports for the year being 472 tons less than the quantity exported during 1896. The Gundagai District still continues to be the principal source of supply in New South Wales. Chrome ore is found in many districts in the Colony, but till its market value increases it is questionable if any active steps will be taken to open up the deposits. Among the appendices will be found "Notes on Chromic Iron Ore," by Mr. Geological-Surveyor Carne, wherein full and complete information is given on this subject.

MANGANESE, NICKEL, AND COBALT.

There was no actual mining for manganese or nickel going on in the Colony during the year. Prospecting work is, however, being carried on by Messrs. Telfetsen and Wyburn for cobalt behind the town of Port Macquarie. A good deal of preliminary work has been done, and the Department is assisting them to put a tunnel into the hill. A full description of the deposit is given by Mr. Geological-Surveyor Jaquet in his report which will be found in the appendices attached.

TUNGSTEN.

There is practically no mining going on at the present time in New South Wales for tungsten. Mr. C. S. McGlew is carrying on prospecting operations about 12 miles from Glen Innes, on Hogan's Creek, but he has not yet been successful in striking ore sufficiently rich for export purposes. A pamphlet on the "Occurrence of Tungsten Ores in New South Wales," by Mr. Geological-Surveyor Carne, F.G.S., has just been issued by the Department, copies of which may be obtained at the Government Printing Office.

DIAMONDS.

A large area has been taken up on the Boggy Camp Diamond and Tin Field by capitalists, with a view of working the ground on an extensive scale, and the necessary machinery is being erected, and the indications give promise of considerable developments in the near future. During the year the output of gems from this field was 8,489 carats, valued at £3,000. At Bingara work at the diamond-mines has been practically suspended, owing to the want of water and capital, but with better times and proper machinery there should be a great future in store for this branch of the mining industry at Bingara.

OPAL.

The White Cliffs Opal Field in the Wilcannia Division continues to make steady progress, and the value of the gem-stone won during the year is estimated at £75,000, as compared with £25,000, the value of the output for 1896. The population may be put down at 1,000 persons, 600 of whom are miners. The great drawback both to residence and mining is the scarcity of water.

About 40 miles N.E. of White Cliffs lies the Purnanga Opal Field, but here again the great scarcity of water and feed has retarded development. Some very fine parcels of opal have been unearthed on this field, bringing as high as £7 per ounce. The surroundings of this field are similar in every respect to the White Cliffs, and when a favourable season permits of full work being carried on some splendid returns may be anticipated. On the whole, the condition and prospects of the opal-mining industry in the Wilcannia Division may be considered as highly satisfactory.

Mr. Warden Brown, in his report, states:—

THE WHITE CLIFFS OPAL FIELD

Has made steady progress during the last year. The town itself has increased fully fourfold during the year, owing chiefly to men bringing their families out to settle down, and men working on the field making substantial houses for themselves, in preference to camping on their blocks in tents. A great drawback to the field is scarcity of water, and for some time past water has been carted from the Government tank, a distance of 2 miles, at a cost of 3s. and 3s. 6d. per 100 gallons. This is a very great inconvenience, and a heavy drag on families who are making a bare living. The want of water is not only a great drawback to domesticated families, but also to the mining population. During the past two years the average rainfall has been very little, if anything, over 7 inches, which, in a hot, dry climate, such as this, is a great calamity. The work on the field has been vigorously carried on during the year, and, generally speaking, has been very extensive all over the field. Unfortunately, there are many who have worked hard for the past two years with the result of earning bare rations, while there are others who have struck payable opal the first day of commencing work, and have been on it ever since. The work done on some of the (*i.e.* the 100 feet) blocks, has been very good indeed, and reflects great credit upon the holders. The leases also have been well worked, notably the Company's blocks. The open cut system adopted by the Company's manager (Mr. E. F. Murphy, J.P.) has been carried on extensively, and will be sure to develop the blocks more than any work that has been done on the field since its existence. I regret the Company's application for amalgamation of blocks was refused, as I believe the amalgamation would have done more towards developing the block under the open cut system than any work hitherto attempted on the field. The expense of working these amalgamated blocks has been very great, but, I believe, has paid, and I think will pay in the future. I have no doubt of the permanency of the field, and though it may never assume very large proportions, it will, at any rate, always hold its own, and will always be entitled to

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be considered among the first opal fields of Australia. The erection of a telegraph line to White Cliffs is a step in the right direction, and will be of great advantage to opal buyers and sellers, business people and the public generally. If the Government could see their way to supply better facilities for water conservation it would be a great benefit to the field, and I would recommend the consideration of it. At present there is not more than three months' supply on the field. It is a most difficult thing to arrive at a correct estimate, the opal buyers being very reticent as to the amount purchased and expended by them. I have taken a good deal of time, and gone to a good deal of trouble over the matter, and I am quite sure I am well within the mark, and don't overrate it in the slightest degree, when I say that the output of opal from White Cliffs for the year 1897 in value amounted to at least £75,000.

The only other place in the district where opal is being found is Purnanga, where opal was discovered in 1896. There was then from ten to fifteen men on this place, but owing to no water the field was virtually deserted, only one party, Michael Flanagan and mate, remaining on the field without intermission. They have had to cart water 5 miles, which has entailed at least 30 miles every time water is carted. Thus to the water to get the horse, 5 miles; back to the camp with the cart, 5 miles; back to the water with cart, 5 miles; back to the camp with water, 5 miles; back to the water with horse, 5 miles; and back to the camp, 5 miles; making a journey in all of 30 miles. Purnanga is the nucleus of a permanent opal field, if a water supply is available, and I would recommend the Department to do something in that direction. I think if the Department allowed £100 towards it, the men on the place, now numbering six, would give a certain portion of their time gratis towards making a dam or tank. If there was water there, I have no doubt the place would soon be prospected with good results. The opal found there has been of fairly good quality, selling up to £7 per ounce, and the output for the year has been about £250.

Prospecting work is being carried on near Coonabarabran, where very fair indication of the presence of marketable opal has been found.

EMERALDS.

The emerald mine near Emmaville has been taken up again and sinking is being proceeded with, it being the intention of the present owners to test the deposit at a depth. There were no gems produced during the year.

MARBLE.

It might truly be said that the marble deposits of New South Wales are not receiving the attention they deserve, as no serious effort has been yet made to supply the local demand. A large number of surface specimens have been polished in the Bathurst Gaol, revealing the existence of many beautiful varieties of marble not hitherto known. These are on view in the Mining and other museums in Sydney.

LIMESTONE.

The quantity of limestone produced by the Tarrawingie Flux Co., at Tarrawingie, near Broken Hill, amounted to 67,590 tons, valued at £41,798, which was all used by the silver-smelting companies at Broken Hill. The works at Cockle Creek are obtaining limestone from the Myall Lake District, and when the works are in full swing employment will be found for a large number of men. The extensive works at Cullen Bullen are now supplying large quantities of lime and cement to the building trade and others.

PLUMBAGO.

Mr. D. S. Smith, at Undercliff, in the Wilson's Downfall Division of the New England Mining District, sent away from his claim there, in 1896, 27 tons of plumbago to Newcastle (N.S.W.) and to England, for which he received 20s. per ton. This will hardly pay, and the owner has allowed the lease to lapse. The other leases taken up for this mineral in the locality have consequently been abandoned.

A sample of 1 ton was also sent to the Chicago Exhibition, which was ultimately sent on to the large works at Massachusetts for trial. Mr. L. S. Brown, of the Springfield Facing Company, Massachusetts, U.S.A., says:—"We are positive that it would make a very good facing, and could be used to advantage wherever German lead is used in the manufacture of foundry facings. It is true that it would probably be impossible to ship it to this country at the price we pay you, as we can buy a powdered German lead at 1½ cent. in New York, or an Italian lead which closely resembles it at about 16 dollars per ton. On any work in the foundry where the facing is used wet—such as dry sand or cores—it would be a very good article indeed, and in any market you could reach think it would pay to have same used."

ALUNITE.

Work is still proceeding at the alunite mine at Bulladelah, and the quantity of stone exported during the year was 724 tons, as compared with 1,372 tons during 1896. This is the only locality in New South Wales where this mineral is being mined for. The stone is sent to the Company's works at Runcorn, in England, for treatment.

SUMMARY showing the Mineral Products of the Colony to the end of 1897.

	Quantity.	Value.	Total Values.
Quantity and value of coal raised prior to 1st January, 1897.....	72,282,266 tons	£ 31,819,331 s. d. 17 6	£ 31,819,331 s. d. 17 6
Quantity and value of coal raised in 1897	4,383,591 ,,	1,230,041 1 1	
Totals	76,665,857 tons	33,049,372 18 7	33,049,372 18 7
Quantity and value of shale raised prior to 1st January, 1897.....	895,334·86 tons	1,795,213 5 2	
Quantity and value of shale raised in 1897....	34,090·27 ,,	40,611 15 0	
Totals	929,425·13 tons	1,835,825 0 2	1,835,825 0 2

	Quantity.	Value.	Total Values.
		£ s. d.	£ s. d.
Quantity and value of coke made prior to 1st January, 1897.....	175,604·60 tons	184,449 6 9	
Quantity and value of coke made in 1897 ...	64,202·00 ,,	45,391 18 0	
Totals	239,806·60 tons	229,841 4 9	229,841 4 9
Quantity and value of gold won prior to 1st January, 1897.....	11,717,616 oz.	43,399,958 8 4	
Quantity and value of gold won in 1897.....	292,217 ,,	1,088,413 0 0	
Totals	12,009,833 oz.	44,488,371 8 4	44,488,371 8 4
Quantity and value of silver, silver lead, and ore exported prior to 1st January, 1897.....	Ingots 7,423,525·62 oz. Silver lead 345,613·55 tons Ore 1,108,475·76 ,,	22,529,262 0 0	
Quantity and value of silver, silver lead, and ore exported in 1897	Ingots 150,005·00 oz. ... Silver lead 18,105·35 tons... Ore 270,913·15 ,, ...	16,711 0 0 645,477 0 0 1,036,051 0 0	
Totals .....	.....	24,227,501 0 0	24,227,501 0 0
Quantity and value of copper exported prior to 1st January, 1897	Ingots 107,151·50 tons } Ore and regulus ... 9,448·80 ,, }	6,684,240 0 0	
Quantity and value of copper exported in 1897	Ingots 6,756·15 ,, ... Ore and regulus ... 166·25 ,, ..	290,829 0 0 851 0 0	
Totals .....	.....	6,984,920 0 0	6,984,920 0 0
Quantity and value of tin exported prior to 1st January, 1897	Ingots 112,810·96 tons } Ore and regulus ... 18,474·35 ,, }	10,498,590 9 0	
Quantity and value of tin exported in 1897.....	Ingots 1,140·65 ,, .. Ore and regulus ... 14·10 ,, ...	70,128 0 0 560 0 0	
Totals .....	.....	10,569,278 9 0	10,569,278 9 0
Quantity and value of iron made prior to 1st January, 1897.....	64,116·60 tons	487,030 0 0	
Quantity and value of iron made in 1897.....	3,239·00 ,,	21,862 0 0	
Totals	64,116·60 tons	508,892 0 0	508,892 0 0
Quantity and value of antimony exported prior to 1st January, 1897	10,410·43 tons	183,399 8 6	
Quantity and value of antimony exported in 1897.....	169·10 ,,	3,612 0 0	
Totals	10,579·53 tons	187,011 8 6	187,011 8 6
Quantity and value of lead (pig) exported prior to 1st January, 1897	1,410·75 tons	15,970 0 0	
Quantity and value of lead (pig) exported in 1897	31·85 ,,	393 0 0	
Totals	1,442·60 tons	16,363 0 0	16,363 0 0
Quantity and value of bismuth exported prior to 1st January, 1897	223·65 tons	38,211 14 0	
Quantity and value of bismuth exported in 1897.....	3·10 ,,	800 0 0	
Totals	226·75 tons	39,011 14 0	39,011 14 0
Quantity and value of oxide of iron and pig-iron exported prior to 1st January, 1897	3,846·90 tons	6,861 0 0	
Quantity and value of oxide of iron and pig-iron exported in 1897	230·05 ,,	536 0 0	
Totals	4,076·95 tons	7,397 0 0	7,397 0 0
Quantity and value of zinc-spelter exported prior to 1st January, 1897	970·45 tons	11,043 0 0	
Quantity and value of zinc-spelter exported in 1897	28,841·80 ,,	23,688 0 0	
Totals ..	29,822·25 tons	34,731 0 0	34,731 0 0
Quantity and value of limestone flux raised prior to 1st January, 1897.....	632,604·80 tons	503,129 9 11	
Quantity and value of limestone flux raised in 1897	67,590·00 ,,	41,798 0 0	
Totals	700,194·80 tons	544,927 9 11	544,927 9 11
Quantity and value of alunite exported prior to 1st January, 1897	5,632·00 tons	22,348 0 0	
Quantity and value of alunite exported in 1897.....	724·10 ,,	2,172 0 0	
Totals	6,356·10 tons	24,520 0 0	24,520 0 0

	Quantity.	Value.	Total Values.
		£ s. d.	£ s. d.
Quantity and value of manganese ore exported prior to 1st January, 1897 ..	270 85 tons	766 0 0	
Quantity and value of manganese ore exported in 1897 .. .. .	.....	.....
Totals	270 85 tons	766 0 0	766 0 0
Quantity and value of opals raised prior to 1st January, 1897	2,697 02 lb.	66,599 6 6	
Quantity and value of opa's raised in 1897	5,292 00 ,,	95,000 0 0	
Totals	7,899 02 lb.	161,599 6 6	161,599 6 6
Quantity and value of cobalt exported prior to 1st January, 1897	111 15 tons	1,921 0 0	
Quantity and value of cobalt exported in 1897 .. .. .	.....	.....
Totals	111 15 tons	1,921 0 0	1,921 0 0
Quantity and value of fire-clay exported prior to 1st January, 1897	150 35 tons	365 0 0	
Quantity and value of fire-clay exported in 1897 .. .. .	.....	.....
Totals	150 35 tons	365 0 0	365 0 0
Quantity and value of lime exported prior to 1st January, 1897	813 00 tons	1,780 0 0	
Quantity and value of lime exported in 1897	349 00 ,,	693 0 0	
Totals	1,262 00 tons	2,473 0 0	2,473 0 0
Quantity and value of marble exported prior to 1st January, 1897	643 pkgs.	2,657 0 0	
Quantity and value of marble exported in 1897 .. .. .	.....	.....
Totals	643 pkgs.	2,657 0 0	2,657 0 0
Quantity and value of building stone exported prior to 1st January, 1897	8,063 No.	8,898 0 0	
Quantity and value of building stone exported in 1897 .. .. .	.....	.....
Totals	8,063 No.	8,898 0 0	8,898 0 0
Quantity and value of ballast stone exported prior to 1st January, 1897	975 tons	1,155 0 0	
Quantity and value of ballast stone exported in 1897 .. .. .	.....	.....
Totals	975 tons	1,155 0 0	1,155 0 0
Quantity and value of grindstones exported prior to 1st January, 1897	473 No.	314 0 0	
Quantity and value of grindstones exported in 1897 .. .. .	.....	.....
Totals	473 No.	314 0 0	314 0 0
Quantity and value of slates exported prior to 1st January, 1897	31,234 No.	351 0 0	
Quantity and value of slates exported in 1897 .. .. .	.....	.....
Totals	31,234 No.	351 0 0	351 0 0
Quantity and value of chrome exported prior to 1st January, 1897	11,185 45 tons	36,664 0 0	
Quantity and value of chrome exported in 1897	3,379 55 ,,	10,269 0 0	
Totals	14,565 00 tons	46,933 0 0	46,933 0 0
Quantity and value of platinum exported prior to 1st January, 1897	2,438 00 ozs.	3,479 0 0	
Quantity and value of platinum exported in 1897	1,966 00 ,,	2,949 0 0	
Totals	4,404 00 ,,	6,428 0 0	6,428 0 0
Value of sundry minerals exported prior to 1st January, 1897 .. .. .	.....	63,851 0 0	
Value of sundry minerals exported in 1897 .. .. .	.....	7,432 0 0	
Totals .. .. .	.....	71,283 0 0	71,283 0 0
General Total			£ 123,053,111 19 9

TABLE showing approximately the number of Miners employed in the Metalliferous Mines, the Quantity of Gold won, the Area of Ground worked, and the Value of Machinery employed, in the Colony of New South Wales, during 1897.

Office.	Alluvial Gold		Quartz	Silver	Copper	Other	Tm.		Total	Quantity of Gold			Price of Gold per oz		Value of Gold won	Auriferous ground worked	Quartz reefs proved to be Auriferous.	Approximate value of Machinery at the Gold mines										
	European	Chinese					European	Chinese		Alluvial.	Quartz	Total.	From	To														
BATHURST MINING DISTRICT																												
Bathurst	96	31	16						147	2,500	0	0	11	5	5	2,511	5	5	75	0	77	6	9,416	4	10	340		
Blayney	100		46						155	164	0	0				164	0	0	70	0	77	6	564	0	0	5	15,000	
Burrage	100		30						280	312	0	0				408	0	0	75	0	83	10	1,609	8	0	5	1,830	
Canowindra			66						66	1	0	0	406	10	0	407	10	0	73	0	80	0	1,504	3	9	9	964	
Carcoar	26		150						181	1,224	14	9				1,224	14	9	75	0	77	6	4,592	9	1	4		
Cowra	30		10		20				60				121	18	10	121	18	10	55	0	80	0	228	15	0	5	1	
Mitchell	200		120						320	3,020	0	0	1,149	0	0	4,169	0	0					14,311	0	0		23,000	
Molong	20		12						32	20	0	0	18	0	0	38	0	0	72	6	75	0	140	2	6	20	4	
Mount M'Donald	15	20	177						212	185	0	0	1,458	13	0	1,643	13	0	75	0	77	6	6,343	10	0	10	35	
Newbridge	35	10	39						84	352	0	0	385	2	0	737	2	0	67	6	76	0	3,570	12	5	12	6	
O'Connell	50	6	3						59	200	0	0	4	0	0	204	0	0					915	10	0		50	
Oberon	150		50						200	301	10	11	60	17	17	362	8	4	75	0	78	0	1,443	0	0	10	12	
Orange	100	6	700						829	1,146	0	0	11,878	0	0	12,524	0	0	75	0	77	10	42,980	0	0		50,300	
Rockley	130	23	102			8			267	1,098	0	0	634	0	0	1,732	0	0	75	0	77	0	7,076	3	0	25	4	
Trunkey	230	30	140						400	1,762	0	0	124	0	0	1,886	0	0	76	6	84	0	7,072	0	0	32	8	
Tucna	250	10	30						290	1,702	0	0	116	11	0	1,818	11	0	75	0	81	9	4,856	13	0	50	26	
Wattle Flat	300	20	300						620	1,656	0	0	328	0	0	1,984	0	0	75	6	78	0	7,430	16	0		2,200	
Total	1,832	156	1,991	44	176	3			4,202	15,644	4	20	16,291	17	8	31,936	2	4					114,024	7	7	199	117	122,954
CLARFENCE AND RICHMOND MINING DISTRICTS																												
Ballina	110								110	74	0	0	74	0	0	77	10	80	9				296	0	0		800	
Dalmorton	34		65						99	255	0	0	600	15	0	855	15	0	76	0	77	6	3,090	15	0	600	100	
Grafton	40		30						70	744	0	0	975	12	0	1,719	12	0	68	9	79	9	9,264	13	10		10,000	
Nana Creek			400						400	11,234	4	1	11,234	4	1	11,234	4	1	72	6	75	0	40,723	19	6		12,810	
Woogoolga	20		60						80	120	0	0	382	7	0	502	7	0	72	0	77	10	1,913	9	0	500	12	
Total	204		555						759	1,193	0	0	13,192	18	1	14,385	18	1					52,288	17	4	1,100	112	32,710
LACHLAN MINING DISTRICT																												
Alectown	93								93	165	0	0	165	0	0	77	6						650	0	0		145	
Barnednan			28						28				4,693	0	0	4,693	0	0					15,213	4	3		1,600	
Cargo			13						13				258	0	0	258	0	0	77	6	83	10	1,056	4	0	75	3	
Condobahn	10		17			25			52																		680	
Cudal			10						10																			
Ffield	91		20						111	882	0	0	52	5	0	934	5	0	75	0	76	0	3,550	4	0	16	10	
Forbes	213		214						427																			
Glenfell	55		167						222	257	0	0	1,523	4	6	1,780	4	6	77	0	77	6	6,855	17	0	25	30	
Gundagai			443						443	899	0	0	2,539	19	13	3,438	19	3	76	0	80	0	13,396	12	2	111	7,505	
Murrumbidgee			6						6				1,992	0	0	1,992	0	0	32	6	37	6	7,685	0	0		1,270	
Narrandera			40						40																		12,455	
Parkes	30	2	370						402	1,404	4	6	7,648	1	1	9,052	5	7	73	0			33,291	7	5	60	60	
Reefton			50						50				1,339	0	0	1,339	0	0	72	0	79	0	4,500	0	0	10	500	
Temora	80		400						480	300	0	0	3,119	12	20	3,419	12	20	78	0	80	0	13,381	19	3	360	23	
Wyalong West			1,500						1,500				16,172	0	0	16,172	0	0	75	0	80	0	64,698	0	0	16	39,000	
Wyalong			900						900				13,198	0	0	13,198	0	0	75	0	80	0	72,792	0	0	36	27	
Yalgogrin			200						200				1,631	0	0	1,631	0	0	75	0	80	0	5,872	0	0	10	9	
Young	316	4	10						330	2,134	0	0	2,134	0	0	2,134	0	0	77	6	78	6	8,375	19	0		350	
Total	888	6	4,388		25				5,307	6,041	4	6	59,166	2	16	65,207	6	22					2,1318	7	1	611	278	115,200
MUDGEE DISTRICT																												
Cobbara	300								300	2,877	0	0	2,877	0	0	2,877	0	0	75	0			10,788	15	0	14		
Gulgong	500								500	6,000	0	0	6,000	0	0	6,000	0	0	76	0	77	0	22,000	0	0	200	20	
Hargraves	100	50	150						300	900	0	0	1,426	0	0	2,326	0	0	77	6	78	6	8,589	5	0	20	6	
Mudgee	60		20						100																		250	
Nyngan						200			200																			
Peak Hill	33		309						342	354	0	0	2,965	17	9	3,319	17	9	75	0	77	6	12,443	9	10		20,000	
Wellington	50	30	230			20			330	200	0	0	9,084	0	0	9,284	0	0	71	0	77	0	33,154	0	0	5	1	
Windeyer	150	40	60						250	1,400	0	0	1,732	0	0	3,132	0	0	77	6	78	0	12,179	16	0	22	16	
Total	1,213	120	769		220				2,322	11,731	0	0	15,207	17	9	26,998	17	9					99,155	5	10	261	43	36,700
COBAR MINING DISTRICT																												
Cobar			520		14	200			734				26,211	0	9	26,211	0	9	25	0	83	0	27,121	1	5		53,600	
Enabalong																											2,000	
Gilgunna			35						35				900	0	0	900	0	0	73	0	77	0	3,375	0	0	4	4	
Mount Dwydale			72						72																		1,500	
Mount Hope			19			93			112				100	5	0	100	5	0	80	0	82	0	402	0	0	3	8,000	
Nynagee																												

District and Division.	Quartz.										Alluvial.													
	Steam-engines employed in winding, crushing, &c.		Crushing machines	Stamp heads.	Concentrators	Whims and pulleys	Water wheels	Pumps.	Huntington mills	Whips	Frue vaners	Chilian mills	Steam-engines employed in winding, pumping, &c.		Water-wheels.	Turbines	Whims and pulley s.	Whips	Pumps	Pudding machines.	Hydraulic hoses.	Boring machines.	Sluice boxes	Other machinery.
	No.	Aggregate horse-power											No.	Aggregate horse power										
CLARENCE AND RICHMOND DISTRICT—																								
Dalmorton	5	83	4	23	1																			
Grafton	1	26	2	13	2																			
Nana Creek	18	187	11	82			1	4																
Woolgoolga	1	8	1	5																				
COBAR DISTRICT—																								
Euabalong	2	27	2	10																				
Cobar	7	380	7	180				4	5															
Mount Hope	4	63	1	20	1				1															
Gilgunnia	1	25	1	15																				
Mount Drysdale.....	2	55							2															
HUNTER AND MACLEAY DISTRICT—																								
Copeland	2	26	5	40			3																	
Dungog	3	10	4	25			1																	
Taree			1	5			1								1									
Bulladelah	1	75	1	10			1	1																
Kempsey	1	20	1	15																				
TAMBAROOBA AND TURON DISTRICT—																								
Hill End	13	335	6	65		5	2					1	50						1					
Ironbarks	4	94	3	32			1																	
Sofala	7	92	7	60																				
LACHLAN DISTRICT—																								
Barmedman	3	125	1	15	1	1																		
Fifield																								
Gundagai	6	100	1	20		11	5															13		
Grenfell	6	60	4	45	2	4		1	5										6	2				
Parkes	7	70	4	48			2			8														
Reefton	1	50	1	10																				
Temora	4	64	4	30		5																		
Wyalong.....	10	158	15		6	3	6	4	4	3	4													
Young	1	10	1	5								4	32							4				
NEW ENGLAND DISTRICT—																								
Deepwater	1	12	1	5								3	30								2			
Emmaville		89										3	30								6			
Fairfield	8	89	6	48		2	1		1															
Tenterfield	2	12	2	8																				
MUDGE DISTRICT—																								
Gulgong	2	16	2	10						3	2	2	27					4	2	1				
Hargraves	5	44	5	29																				
Peak Hill	4	50	3	55														4						
Wellington.....	8	115	3	30	2													1						
Windeyer	3	25	3	20			2			3								3						
PEEL AND URALLA DISTRICT—																								
Armidale	2	14	2	10			1		2															
Bingara	4	40	4	24	1					3														
Barraba	3	21	4	24			1																	
Hillgrove	21	488	7	165	4		1	3			16													
Hillgrove West (Metz)	6	170	3	70	10						9													
Kookabookra	1	16	1	10																				
Moonan Brook	5	38	1	10			1																	
Stewart's Brook.....	5	56	4	40			1	2	3		1													
Swamp Oak	7	127	5	39			2		2												2			
Tingha												7	64					1		2				
Uralla	3	30	3	20																				
TUMUT AND ADELONG DISTRICT—																								
Albury	5	45	5	27																				
Adelong	3	75	1	30	1			2	1	2														
Bungendore and Bywong	3	24	2	8					1															
Cooma	5	60	6	42		1																		
Corowa	1	22	1	8																				
Kiandra	2	15	1	10																				
Nimitybelle	2	16	2	10		2																		
Reedy Flat.....			1	6			1	1	2															
Tarcutta	1	16						1	1															
Walbundrie	1	25	1	8					1															
Tumbarumba	1	10	1	8								2	20							2		2		
SOUTHERN DISTRICT—																								
Araluen	1	12	1	10	1							8	142	7		1		21		4		20		
Bateman's Bay	1	10	1	10					1															
Burrowa	5	62	1	10	6																			
Cobargo	2	8	1	5						1														
Little River	1	32	2	20		1								8										
Major's Creek	5	381	2	25	6	4			3		3													
Moruya	3	10	3	25																				
Nelhgen	2	23	3	11																				
Nerriga	2	12	2	20																				
Nerrigundah	4	32	4	25			1																	
Pambula	8	250	4	100	3	1	1	3	2	4														
Wagonga	4	63	7	46				4	1	1	1													
Wolumla	1	15							1															
	308	5,457	233	2,101	47	46	17	52	35	24	53	4	31	407	15		13	4	73	8		20		

During the year there has been a decided inclination on the part of the public to invest in gold-mining properties, and much attention has been given to low-grade ores. This, undoubtedly, is a movement in the right direction, as it has in other countries been amply proved that low-grade properties, when carrying large quantities of ore, can be made to pay and give much more constant and satisfactory results to investors than the fitful and sometimes phenomenally rich patches which are occasionally met with in other classes of mining.

In concluding this report, I venture to express my belief that there are signs that a considerable expansion will shortly take place in the mining industry in this Colony. The introduction of capital, and the employment of modern methods and machinery are doing much to render possible the advantageous working of properties and mining fields which, under old methods, were unprofitable, but under the new, give every promise of returning dividends to those who embark in the enterprise. A large amount of confidence is being felt in the extent and stability of our gold and mineral fields, and it is gratifying to report that they are attracting the attention of genuine capitalists and promoters of mining enterprise. There are many localities where the advent of capital would enable mines to be worked on an extensive scale, thus not only ensuring the development of our latent resources, but also affording avenues of employment to large numbers of our industrial population.

I have the honor to be,

Sir,

Your obedient servant,

A large, elegant handwritten signature in cursive script, reading "W. C. Lachlan". The signature is written in dark ink and features a prominent, sweeping underline that extends across the width of the signature.

Under Secretary for Mines and Agriculture.

Department of Mines and Agriculture,
4th March, 1898.

CHIEF INSPECTOR OF MINES AND SUPERINTENDENT OF DIAMOND DRILLS' REPORT.

In submitting my annual report for the year 1897, I have the honor to inform you that the following is a list of accidents reported to me by Wardens, Coroners, Inspectors of Mines, and Mining Registrars, as having occurred in the Metalliferous Mines in New South Wales during the year 1897.

Table A.—Showing fatal, serious, and minor accidents, which may be cited as true mining accidents, being exclusive of the accidents which occurred on the surface.

Table B.—Showing fatal, serious, and minor accidents, which occurred on the surface; therefore not true mining accidents.

Table C.—Number of persons who suffered through lead-poisoning in connection with the Broken Hill Mines, as is given in accordance with the provisions of the Lead Poisoning Act in monthly returns from the managers of the Broken Hill Mines during the year; also a comparison since 1895.

Table D.—Number of persons employed in the Metalliferous Mines of New South Wales; percentage of persons killed or injured; also value of machinery up to 31st December, 1897.

Out of a total of 29 persons killed, 12 lost their lives in silver-mining, 6 in auriferous quartz-mining, 5 in auriferous alluvial mining, 2 in copper-mining, 1 in tin-mining, 3 in limestone or flux mining in connection with Broken Hill Smelting Works.

The fatal accidents during the year, with verdicts of Coroners' Juries or Magisterial Inquiries, are as follows:—

Fatal Accidents both above and under surface (exclusive of Broken Hill) during the year, with Verdicts of Coroners' Juries or Magisterial Inquiries.

Date.	Name.	Name of Mine.	Locality.	Remarks and Verdict.
14 Jan ..	A. E. Goodwin ...	Eleanora Mine..	Hillgrove	Killed by fall of skid-board down shaft. Verdict: Killed by skid-board; and rider added that skid-boards should be better secured and stronger.
23 Feb...	Alfred Hayden ...	Gotlee's Flat ...	Tingha	Killed by fall of earth. Verdict: Accidental death.
9 Mar..	Wm. Henderson..	Caloola G. M. ...	Caloola	Labourer, cutting out foundation for Huntingdon Mill when ground fell on him. Accidental.
5 May..	T. R. Prinable ...	Lawson's Plains.	Rockley	Fall of earth. Verdict: Accidental death.
16 June.	Alex. Watt	Royal Standard Mine.	Stewart's Brook	Crushed in water-wheel while effecting repairs. Verdict: Accidental death; no blame attachable to anyone.
24 ,,	Aug. Stahlhut ...	Jury Gully	Uralla	Crushed by fall of earth. Verdict: Accidental death.
13 Aug..	Thos. Barry	Cobar Gold Mines	Cobar	Barring down stone after a blast in an open cut, when the lever he was using struck him on the head. Verdict: Accidental death; no blame.
14 ,, ...	Andrew Johnston	Prince of Wales Mine.	Gundagai	Manager of mine; fell down shaft owing to rope breaking. Verdict: Accidental; no blame attachable to anyone.
28 ,, ...	E. B. Cates	Alluvial Mine ...	Warrambucca...	Crushed by fall of earth.
28 ,, ...	G. P. L. Guthie..	The Lagoon.....	Near Bathurst..	} Explosion of boiler. Verdict: Accidental.
28 ,, ...	Wm. Rawson.....	„	„	
21 Oct...	Ed. Hughes	Mitchell's Creek	Daviesville	Struck by timber while riding in truck, contrary to the rules. Verdict: Accidental death; no one to blame.
27 ,, ..	Robt. Morley.....	Patron Mine ...	Wyalong	Whip-rope became detached from horse and Morley fell down the shaft. Verdict: Accidental; no one to blame.
10 Nov..	Archibald Frew...	Baker's Creek Mine.	Hillgrove	Fall of stone from face of stope. Verdict: Accidental death; no blame attachable to anyone.
11 ,, ...	A. E. Wedger ...	Alluvial Mine ...	Dog Trap	Fell off ladder; fractured skull; a fossicker; no inquest.
27 ,, ...	John Lonsdale ...	Star of Peace ...	Hawkins' Hill...	Fall of stone down pass. Verdict: Accidental; no one to blame.
4 Dec...	Chris. Guthrie ...	Macquarie G. M.	Macquarie River	Collapse of timber in alluvial mine. Verdict: Accidental; no one to blame.
4 ,, ...	Jas. Harris.....	GirilamboneCopper Mine.	Girilambone.....	Explosion. Verdict: Accidental.

Fatal Accidents both under and above surface, Broken Hill District.

Date.	Name.	Name of Mine.	Remarks and Verdict.
1897.			
8 Jan...	Ed. Degenhardt	Proprietary Mine	Fell into ore pass ; concussion of brain. Verdict: Accidental ; no one to blame.
28 ,, ...	John Gainey	,,	Knocked down by skip ; concussion of brain. Verdict: Accidental.
23 Mar..	John Harvey	Central Mine	Fall of ground when removing prop ; fractured thigh and spinal injury. Verdict : Accidental ; no one to blame.
5 April	Wm. Thompson	Block 10	Fall of ore in stope ; crushed. Verdict : Accidental.
7 May..	Fredk. Williamson...	Tarrowingee Flux Co. ...	Slip of ground when barring down stone ; leg cut off. Verdict : Accidental.
4 June	James Taylor	Proprietary Mine	Fall of ground ; leg cut off. Verdict : Accidental ; and rider added that more care should be used in placing the men in the cut.
4 ,, ...	Timothy Ryan	,,	Struck by falling stone. Verdict : Accidental ; no one to blame.
5 ,, ...	{ James Kennedy } { Henry Sawyer ... }	Tarrowingee Flux Co. ...	{ Using a steel jumper to cut out some bagging, which had jambed in charged hole ; explosion. Verdict of negligence in using a steel bar.
8 ,, ...	Wm. Andrewartha ..	Block 10	Wire rope slipped when ends were being changed, and entangled him. Verdict : Accidental ; rider re adopting different method for changing ends of ropes.
5 Oct...	C. N. Leslie.....	,,	Jambed between railway trucks in October, 1896, and died a year later from the effects. Verdict : Accidental.
12 ,, ...	{ Wm. Knee..... } { John Hude..... }	Proprietary Mine	Suffocated by carbonic acid gas while endeavouring to locate seat of fire in Block 13. Verdict : Accidental.
31 ,, ...	J. M. Grant.....	,,	Was seized by a fit when repairing pump ; fell into well-hole and was drowned. Verdict : Accidental ; no one to blame.
13 Dec...	John Olsen	,,	Strained his bowels when lifting stone ; peritonitis supervened. Verdict : Accidental.
14 ,, ...	T. J. Vivian	,,	Jib-stay broke, and allowed jib to fall on Vivian. Verdict. Accidental ; no one to blame.

Date.	Name.	Name of Mine.	Remarks.
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Fatal Accidents (under-ground) at Broken Hill during 1897.

1897.			
8 Jan...	Ed. Degenhardt	Proprietary	Fell into pass—received concussion of brain.
28 ,, ...	John Gainey	,,	Knocked down by skip—received concussion of brain.
13 Mar..	John Harvey	Central	Fall of ground—fractured thigh and spinal injury.
5 April.	Wm. Thompson	Block 10	Fall of ore—crushed.
7 May..	Fredk. Williamson...	Tarrowingee Flux	Slip of ground—leg cut off—subsequently died.
4 June.	Jas. Taylor	Proprietary	Fall of ground
4 ,, ...	Timothy Ryan	,,	Struck by falling stone. "
5 ,, ...	Jas. Kennedy	Tarrowingee Flux	Premature explosion. "
5 ,, ...	Henry Sawyer.....	,,	" "
8 ,, ...	Wm. Andrewartha ..	Block 10	Entangled in falling rope.
12 Oct...	Wm. Knee	Proprietary	Suffocated by carbonic acid gas.
12 ,, ...	John Hude	,,	" "
12 ,, ...	J. W. Mulcaster.....	,,	" "
31 ,, ...	J. M. Grant.....	,,	Fell into well-hole while in a fit and was drowned.
13 Dec...	John Olsen	,,	Strained himself—peritonitis supervened, and death ensued.

Serious Accidents (under-surface) in the Broken Hill District during the year 1897.

13 Jan...	John Rooney	Proprietary	Struck by cage—injured back.
18 ,, ...	Henry Howes	Silver Hill	Fall of ground—broken collar-bone, &c.
20 Feb...	Thomas Uren	Proprietary	Fall of ore—broken legs.
5 May..	W. Lee	,,	Fell off stage—concussion of spine.
29 ,, ...	John Auld	Block 10	Fell into pass—scalp wound.
21 July.	J. Roberts	Junction North	Truck wheel fell down shaft—injured arm and chest.
29 ,, ...	J. Rowe	Block 14	Stumbled over rock—fractured leg.
7 Aug..	David Garrick	Pinnacles	Fell down shaft in cage—shock.
9 Sept..	John Casey	British	Fall of stone—scalp wound.
11 ,, ...	Patrick O'Dea.....	Proprietary	Explosion of dynamite—injuries to eyes.
26 Oct..	J. Farnilo	Block 10	Fall into pass—fractured leg.
26 ,, ...	M. Browning	,,	" shock and bruises.
10 Nov..	H. Dixon	Proprietary	Fall of ore—injury to spine.
18 ,, ...	W. H. Jenkins	,,	Stumbled over timber—fractured leg.
24 Dec...	John Varty	,,	Slipped on mullock—fractured thigh.

Minor Accidents under surface in the Broken Hill District during the year 1897.

8 Jan...	Edward Viant.....	Proprietary	Struck by cage—scalp wound.
17 Mar..	Stephen Giles	Junction	Fell into pass—cuts and bruises.
1 May..	James Sims	Proprietary	Injured while tipping truck.
12 ,, ...	Joseph Murphy	,,	Slipped while handling timber—injured back.
29 ,, ...	J. G. Miller	North	Slipped and injured ribs.
17 June.	F. Barnett	Proprietary	Fall of stone—cut ankle.
25 ,, ...	T. J. Sampson	,,	Fell down stope—dislocated elbow.
28 ,, ...	Richard Dwyer	,,	Jambed in tunnel—bruises.
17 July..	F. Layers.....	Central	Injured by truck—small bone of leg fractured.
20 ,, ...	Thomas Cahill.....	,,	Fell down stope—cuts and bruises.
29 ,, ...	R. M. Lang	Proprietary	Struck himself with pick—wounded ankle.
15 Sept..	J. Walsh	Pinnacles	Stumbled over ore—dislocated elbow.

Date.	Name.	Name of Mine.	Remarks.
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Fatal Accidents on surface at Broken Hill during 1897.

1897.			
5 Oct...	C. N. Leslie	Block 10	Jambed by truck—abdominal injuries.
14 Dec...	T. J. Vivian	Proprietary	Collapse of crane—fractured skull.

Serious Mining Accidents on surface at Broken Hill during 1897.

21 Jan...	Samuel Gunther	Central	Injured back—fell off ore-bin.
4 April	William Smith	Proprietary	Derrick guys gave way—fell and injured scalp.
28 „...	Jas. Shapley	„	Slip of tailings heap—crushed.
7 May..	Thos. Allison	„	Fell off tram-line—spinal injury.
13 „...	Wm. Garland	Block 10	Tangled in belt—leg cut off.
5 June	Joseph Eiffe	Proprietary	Caught in cog-wheel—various injuries.
20 July..	D. Matters	Junction	Jambed by truck—fractured ribs.
26 „...	J. Durbridge	Proprietary	Attending machinery—cuts and bruises.
29 Oct...	J. Neil	Block 10	Caught in machinery—broken arm.
15 Nov..	Ed. Rose	Proprietary	Cleaning machinery—crushed hand.

Minor Accidents on surface at Broken Hill during 1897.

1 June..	W. Hanlon	Block 11	Runaway truck—shock and bruises.
1 „...	J. Overall	„	„
28 „...	J. H. Murch	Proprietary	Adze slipped—cut ankle.
28 July.	Wm. Thompson	Block 10	Struck by windlass handle—fractured rib.
19 Aug..	Ed. Oatey	Proprietary	Slipped into vat—scalded.
13 Oct...	John Murray	Central	Attending machinery—crushed fingers.
29 „...	Wm. Walley	Block 10	Caught between buffers—bruised foot.
11 Nov...	Ed. Oatey	Proprietary	Opening hot water tap—scalded arm.

During the year I have made visits of inspection on official duties:—

West—To the Carcoar, Orange (twice), Forest Reefs, Nymagee, Overflow, Cobar, Newbridge, Parkes, Alextown, Peak Hill, Stuart Town, Macquarie River, Forbes, Condobolin, Blayney.

South—Murrumburrah (twice), Berthong, Young, Temora, Wyalong, Yalgogrin, Cootamundra, Wagga Wagga, Grong Grong, Cooma, Cowra Creek.

North—Uralla and Newcastle districts.

Nothing of any great importance has occurred during the year in connection with the metalliferous mines of the Colony as to any extensive new discoveries or other matters in connection with same, with the exception that a Royal Commission was appointed to inquire into and to suggest remedies in the alleged extraordinary frequency of accidents occurring in the Broken Hill mines. His Honor Judge Murray was appointed sole Commissioner, and, after searching inquiry, found that the accidents were not of a greater extent compared with former years, and that every possible precaution was taken by managers and the inspector of mines to as much as possible prevent accidents. His Honor Judge Murray has also recommended a number of valuable suggestions both in the altering of regulations and otherwise for the purpose of minimising the occurrence of accidents in the Broken Hill mines.

I have again to acknowledge with pleasure the great assistance given me in the multifarious duties of my office by the inspectors of mines and the clerks of my branch. They have taken a keen interest in everything appertaining to the duties in connection with said branch, and are always willing and ready to do the bidding of their superior officers in the interest of the whole department.

The inspection of mines as well as the clerical work of my branch has been on a steady increase for years past, and is still steadily increasing, as will be seen by the following:—

Papers registered, Chief Inspector of Mines and Diamond Drill Branch, for the year 1897, were no less than 4,090, as against 3,724 for 1896. Letters written, 2,410, which includes 731 for fossickers, in 1897, as against 1,898 in 1896.

The above is exclusive of telegrams and circulars.

In addition to the above, 1,284 papers on various subjects were received from the Records and 1,497 sent on to the Records, which were dealt with by me on various matters in connection with the department, and of which a skeleton register has to be kept to prevent miscarriage.

982 persons were recommended by me during the year to the Government Labour Bureau for railway passes to enable them to go fossicking for gold. This system has enabled many persons to earn a respectable livelihood on our gold-fields, and has, to some extent, eased the labour market of the metropolis. A fair percentage of those assisted have been able to return their railway fares, and have been able to make a home for themselves on our gold-fields, which, without the assistance given by Government, they would not have been able to accomplish. If more of our working population would settle on the gold-fields instead of in the larger towns, take advantage of the liberal laws by which any miner's right holder can take up a residence area (in addition to a claim) sufficiently large to grow all vegetables required, besides numerous other privileges which cannot be obtained on such easy terms in any town, it would be more beneficial, not only to the working men, but for the Colony at large.

The diamond-drill work for the year has been confined to Forest Reefs, Orange district; Junction Point, Mandurama district; Grassy Gully, Nowra district, and the Island of Funafuti.

At the Forest Reefs the depth bored during the year was 835 ft. 3 in., of which nearly 800 ft. was through hard basalt. At the Lyndhurst Gold-fields Company's property (Junction Point), 544 ft. 9 in. was bored through hard vertical slates, hard diorite and granite.

At Grassy Gully, 300 ft. were bored horizontally through a hill of hard felsite formation. At Funafuti boring operations were greatly retarded owing to the difficult strata the bore had to pass through. Of the 698 ft. reached by the drill; the strata consisted of honeycombed corals with sand mixed throughout. Professor David, when questioned on the subject of boring through the coral beds at Funafuti says, "It was by far the most difficult piece of work that our Government diamond drill branch has ever attempted. It was due principally to the constantly varying nature of the strata. For a few feet the drill would be in cavernous coral rock, the boring of which caused a violent jarring of the machinery, leading to frequent breakages and much splintering of diamonds; then it would suddenly pass into a bed of quicksand or coral rubble; and again without a moment's warning into a bed of rather dense limestone. On account of the numerous beds of loose quicksand and rubble, it was necessary to line the bore throughout with the best artesian iron tubing. It was impossible to drive the tubing down without first resorting to a process of under-reaming, which occupied fully twice as much time as the actual boring. After this had been done the artesian tubing had to be driven down with a heavy wooden "Monkey." I could dwell further on the difficulties the expedition had to contend against, but the above is sufficient to show that the depth of 698 ft. was reached under great difficulties.

Re the Funafuti expeditions, I drew special attention in my Annual Report of 1896 to the fact that as the expedition of that year had been a partial failure, it would be prudent not to drop such scientific enterprise, but to follow up the subject determinately, and bring it to a successful issue. This, I am pleased to state, has been done, and a second expedition, which started on the 2nd June last, has returned with very valuable scientific information. As stated above, 698 feet were bored through the coral beds. To the Royal Geographical Society of Australasia is due the outfit of the second expedition, although other kindred societies and private individuals assisted the enterprise. The leadership was given to T. W. E. David, Esq., B.A., &c., Professor of Geology, Sydney University, and was accompanied by his wife, who took a great interest in the work and ably assisted to bring the expedition to a successful issue. The Government of New South Wales lend the diamond drill machinery, which, with the six men who worked it, was selected by me. By knowledge gained from the first expedition, several items of new machinery were added to cope with the difficulties, the whole diamond drill plant weighing about 30 tons; and sufficient rods, &c., were taken to bore 1,200 feet.

There is no doubt whatever that notwithstanding the partial failure of last year's operations, the knowledge gained by the first expedition, under the leadership of Professor Sollas, F.R.S., LL.D., then of the Dublin University but now Professor of Geology, Oxford, has been such as to form a great guide for the second expedition, and I certainly think that although the greatest credit is due to Professor Anderson Stuart, who first, five years ago, mooted and urged the matter on the Government of New South Wales in connection with the loan of a diamond drill, and to Professor David, B.A., F.G.S., who so ably and successfully led the second expedition, none of those in Australia interested in the Funafuti boring operations have the slightest desire to lessen the great credit certainly due to the Royal Society, London, and to Professor Sollas, of the first expedition. Personally I have left no stone unturned, or an opportunity pass of furthering the objects of the expedition, by laying the case properly and in all its aspects before the Government, and by the selection of suitable machinery and men, or in any other way my services could be utilised, and generally to make the expedition a thorough success.

The first expedition under Professor Sollas ought not to be looked upon as a failure, but, rather, as a partial success, and the second expedition under Professor David, was a great success and improvement on the first, considering all the circumstances; nevertheless, the work was not thoroughly completed, inasmuch as the whole thickness of the coral beds have not been bored through, and the bed-rock has not been reached. Great satisfaction, however, remains in connection with the fact that the British, and not a foreign nation, has unravelled the principal portion of the interesting questions in connection with the creation and formation of the coral atolls. The inhabitants of New South Wales as a rule are in sentiment as British as the Britishers, hence the first expedition had as hearty wellwishers from this part of the globe as if it had been of an entirely Australian origin. As it is, this Colony has been honoured, and has been extensively advertised, not only by the Royal Society, London, and kindred societies, but by the whole scientific world, for the action of the Government of New South Wales, in the cause of science, by assisting the expedition with not only a diamond drill, but also other useful and valuable privileges.

I would very strongly recommend that still further assistance may be rendered, and another expedition started to complete the boring operations at the Island of Funafuti, through the whole depth of the coral bed, whatever depth that may be, and into the bed-rock.

Until this is accomplished, the object for which the former expeditions were formed has not obtained the fullest realisation, and the sooner this is accomplished the better, especially as the principal tubing has been left in the borehole, and it would cost less than any of the former expeditions, as only three (instead, as formerly, six) men would be required.

Herewith I also attach my reports (eight in number) of various districts, including reports on dredging the New South Wales rivers for gold, with illustrations of river dredge. Also, sections of diamond drill bores and the Inspectors' of Mines reports as appendices to my annual report.

I have, &c.,

W. H. J. SLEE,

Chief Inspector of Mines and Superintendent of Diamond Drills.

The Under Secretary for Mines and Agriculture.

TABLE A.

Showing Fatal, Serious, and Minor Accidents during 1897, which may be regarded as True Mining Accidents.

No	Date	Name of Mine	Locality	Person Killed	Person seriously Injured	Minor Accidents	Occupation	Nature and Cause of Injury or Death
1	2 Jan	Sunlight Mine	Metz		John Tweedie		Miner	Fall of stone—fractured arm
2	8 "	Myall United	M'Phail		T C Finn		"	Fall of earth—broken leg
3	20 "	Maritana G M	Cobar			Matt Guntripp	"	Explosion of detonator—injured hand.
4	25 "	Mt Diomedary G M	Tilba Tilba			Alex Paice	"	Pick fell and cut his back
5	27 "	Ironclad G M	Cargo			Henry Mobbs	"	Fall of slab—injuries to leg
6	8 "	B H Proprietary	Broken Hill			Edward Viant	"	Struck by cage—scalp wounds
7	8 "	"	"	Ed Dagenhardt		"	"	Fell into pass—concussion of brain.
8	13 "	"	"		John Rooney	"	"	Struck by cage—injured back
9	14 "	Eleanora G M	Hillgrove	A E Goodwin		"	"	Killed by fall of skid board
10	18 "	Silver Hill S M	Broken Hill		Henry Howes	"	"	Fall of ground—broken collar bone, &c
11	28 "	B H Proprietary	"	John Gailey		"	"	Struck by skip—concussion of brain
12	2 Feb	Jingera Propriety S M	Whipsnack			Thos Osborne	"	Collapse of stage—cuts and bruises
13	11 "	M'Auley s Lead	Ballina		Thos Roman	"	Alluvial miner	Fall of earth—broken leg
14	20 "	B H Proprietary	Broken Hill		Thos Uren	"	"	Fall of ore—broken legs
15	23 "	Godlees Flat	Tinaha	Alfred Hayden		"	"	Fall of earth—crushed
16	17 Mar	Junction S M	Broken Hill			Stephen Giles	"	Fell into pass—cuts and bruises.
17	23 "	Central Mine	"	John Harvey		"	"	Fall of ground—fractured spine
18	30 "	Russell s Mine	Bundarra			B Ryan	"	Fell down shaft—bruises
19	5 April	Block 10	Broken Hill	Wm Thompson		"	"	Fall of ore—crushed
20	1 May	B H Proprietary	"			Jas Sims	"	Injured while tipping truck
21	5 "	Lawson s Plains	Rockley	Thos Prindle		"	"	Crushed by fall of earth
22	5 "	B H Proprietary	Broken Hill		Wm Lee	"	"	Fell off stage—concussion of spine
23	7 "	Tarrawingee Flux M	Tarrawingee	Fredk Williamson		"	Quarryman	Slip of rock—cuts, bled to death
24	12 "	B H Proprietary	Broken Hill			Joseph Murphy	Miner	Slipped while handling timber—injured back
25	22 "	Lake George C M	Captain's Flat			E Reynolds	Plumber	Struck by cage—injured jaw
26	27 "	The Sands	Trunkley		D Wilson	"	Alluvial miner	Fall of earth—bruises unknown.
27	29 "	Block 10	Broken Hill		John Auld	"	Trucker	Fell into pass—scalp wounds.
28	29 "	B H North S M	"			J G Miller	Miner	Slipped and injured ribs
29	4 June	B H Proprietary	"	James Taylor		"	"	Fall of ground—loss of limb
30	4 "	"	"	Timothy Ryan		"	"	Fall of ground—general injuries
31	5 "	Tarrawingee F M	Tarrawingee	James Kennedy		"	Quarryman	Premature explosion—fractured skull.
32	5 "	"	"	Henry Sawyer		"	"	"
33	8 "	Block 10	Broken Hill	W Andrwartha		"	"	"
34	17 "	B H Proprietary	"			F Barnett	Miner	Caught in rope—general injuries
35	24 "	Jerry s Gully	Uralla		August Stahlhut	"	Alluvial miner	Fall of earth—cut ankle
36	25 "	B H Proprietary	Broken Hill			T J Sampson	Miner	Fall of earth—crushed
37	26 "	Silver Point M	Rockvale			"	"	Fell down pass—dislocated elbows
38	28 "	B H Proprietary	Broken Hill			J W Cairns	"	Struck by falling bucket—injured head and body
39	29 "	Great Cobar C M	Cobar		J Schick	Richard Dwyer	"	Jammed in tunnel—bruises
40	30 "	The Gap	Adelong		John Causon	"	"	Fell down pass—broken ribs and arm
41	17 July	Central Mine	Broken Hill			F Layers	"	Explosion—amputated leg
42	20 "	"	"			Thos Cahill	"	Injured by truck—small bones of leg fractured
43	21 "	Junction North S M	"		J Roberts	"	"	Fell down slope—cuts and bruises
44	27 "	Gilmandyke G M	Burriga		Wm Harris	"	"	Truck wheel fell down shaft—injured arm and chest
45	29 "	Block 14	Broken Hill		John Rowe	"	"	Explosion of dynamite—shattered hand
46	29 "	B H Proprietary	"			R M Lang	"	Strumbled over rock—fractured leg
47	3 Aug	Johnston s Mine	Bywong			Jas Berrigan	"	Struck himself with pick—wounded ankle
48	7 "	Pinnacles M	Broken Hill			David Gault	"	Explosion of detonator—shattered hand
49	13 "	Cobar G M	Cobar	Thos Barry		"	Quarryman	Fell down shaft in cage—shock
50	14 "	Prince of Wales M	Gundagai	Andrew Johnston		"	Miner	Barring down rock—crushed
51	16 "	Great Farcombe	Gulgong			Edward Eason	"	Fell down shaft in cage—crushed
52	19 "	Mount Rea G M	Dalmorton		Thos Gibbons	"	"	Fell off ladder—bruises
53	28 "	Warrambucca M	Warrambucca	Bowman, alias Cates		"	Alluvial miner	Explosion—injured eyes and face
54	3 Sept	Alluvial Mine	Golden Gully		John Dumble	"	"	Fall of earth—crushed
55	4 "	"	Araluen		Michael Dillon	"	"	"
56	8 "	Sunlight Mine	Metz			Joseph Dean	Miner	concussion of spine
57	9 "	Witney Green G M	Byng			John Field	"	broken leg
58	9 "	British Mine	Broken Hill			"	"	Fall of rock—dislocated collar bone
59	11 "	Warratta Battery	Warratta			— Mannix	"	shock to system
60	11 "	B H Proprietary	Broken Hill		Patrick O Dea	"	"	Fall of stone—scalp wound
61	15 "	Pinnacles M	"			J Walsh	"	Portion of bucket fell down shaft, striking him—injuries not stated
62	23 "	Lake George C M	Captain s Flat			George Burns	"	Explosion of dynamite—injury to eyes
63	24 "	Mitchell s Creek G M	Daviesville			Chas McBride	"	Stumbled over ore—dislocated elbow
64	8 Oct	White Rock Mine	Drake		Bernard Costa	"	"	Fall of stone down pass—injury of hip
65	12 "	B H Proprietary	Broken Hill	Wm Kneec		"	"	Fall of stone from bucket—injuries to head
66	12 "	"	"	John Hude		"	"	Premature explosion—injured eyes
67	12 "	"	"	J Wm Mulcaster		"	"	Locating fire in Block 12—suffocated.
68	21 "	Mitchell s Creek G M	Daviesville	Ld Hughes		"	"	"
69	25 "	Scrub Reef	Parkes			"	"	"
70	25 "	"	"		John Ritchie	"	"	Killed by truck—neck broken
71	25 "	"	"		St n M Donough	"	"	Drilling out mis shot—cuts and bruises.
72	26 "	Great Cobar C M	Cobar			R Allen	Trucker	Truck rebounded—injured leg
73	26 "	Block 10	Broken Hill		J Farnilo	"	Miner	Fell into pass—fractured leg
74	27 "	Patron Mine	Wyalong	Pobt Moiley		M Browning	"	—shock and bruises
75	31 "	B H Proprietary	Broken Hill	J M Grant		"	"	Fell down shaft—fractured leg
76	10 Nov	Bakers Creek G M	Hillgrove	Arch Frew		"	"	While in a fit fell off stage into well-hole—drowned
77	10 "	B H Proprietary	Broken Hill		H Dickson	"	"	Fall of stone—crushed
78	11 "	Alluvial Mine	Dog trap	Alf L Wedger		"	"	Fall of ore—injury to spine
79	15 "	Piccaniny Mine	Yalgogrin			Ben Manson	"	Fell off ladder—fractured skull
80	18 "	B H Proprietary	Broken Hill		W H Jenkins	"	"	—shock and bruises
81	27 "	Star of Peace	Hill End	John Lonsdale		"	"	Stumbled over timber—fractured leg
82	3 Dec	Girilambone C M	Girilambone	James Harris		"	"	Fall of stone down pass—concussion of brain
83	4 "	Macquarie G M Co	Macquarie River	Chris Guthrie		"	Alluvial miner	Returned to mis shot—various injuries
84	13 "	B H Proprietary	Broken Hill	John Olsen		"	Quarryman	Collapse of timber—crushed
85	24 "	"	"		John Varty	"	Mullicker	Loading truck—strains—resulting in death
								Slipped on mullock—fractured thigh

SUMMARY

Fatal—Gold, quartz, 6, gold alluvial 5, silver, 12, copper, 2 tin alluvial, 1 limestone, 3 Serious—Gold, quartz, 9 gold, alluvial, 4, silver, 16, copper, 1. Minor—Gold, quartz, 8, gold, alluvial, 0, silver, 13, copper, 5 Total mining accidents during 1897—Fatal, 29, serious, 30, minor, 26

TABLE B.

TABLE B.

Showing Fatal, Serious, and Minor Accidents on Surface as distinguished from true Mining Accidents, during 1897.

No.	Date	Name of Mine.	Locality.	Person killed	Person seriously injured.	Minor Accidents.	Occupation.	Nature and cause of injury or death.
1	21 Jan	Central Mine . . .	Broken Hill	. . .	Samuel Gunther .	. . .	Surface-hand	Injury to back—fell off ore bin.
2	17 Feb	Great Cobar C. M.	Cobar	. . .	Richard McCabe .	. . .	Surface-hand	Fall of earth—broken leg.
3	9 Mar	Caloola Creek G. M.	Caloola	Wm. Henderson .	. . .	. . .	Alluvial miner	crushed.
4	4 April	B. H. Proprietary	Broken Hill	. . .	Wm. Smith . . .	. . .	Laborer	Derrick guys gave way—scalp wounds, &c.
5	15 "	Great Cobar C. M.	Cobar . . .	. . .	. . .	N. Scalletti	Sawyer	Working circular saw—cuts, &c.
6	28 "	B. H. Proprietary	Broken Hill	. . .	Jas Shapley	. . .	Surface-hand	Slip of tailings heap—crushed.
7	7 May	"	"	. . .	Thos Allison	. . .	"	Fell off tram line—spinal injury.
8	13 "	Block 10	"	. . .	Wm Garland	. . .	Machinery attendant.	Tangled in belt—leg cut off.
9	1 June	" 11	"	. . .	. . .	W Hanlon	Surface hand	Runaway truck—shock and bruises.
10	1 "	" 11	"	. . .	. . .	J Overall	"	"
11	5 "	B. H. Proprietary	"	. . .	Joseph Eiffe	. . .	Machinery attendant	Caught in cog wheel—various injuries.
12	16 "	Royal Standard G M	Stewart's Brook	Alex Watt	. . .	. . .	"	Caught in machinery—crushed, &c.
13	28 "	B. H. Proprietary	Broken Hill	. . .	. . .	J H Murch	Timber man	Adze slipped—cut ankle.
14	20 July	Junction Mine	"	. . .	D Matters	. . .	Surface hand	Jambled by truck—fractured ribs
15	26 "	B. H. Proprietary	"	. . .	J Durbridge	. . .	Machinery attendant	Attending machinery—cuts and bruises.
16	28 "	Block 10	"	. . .	. . .	Wm Thompson	Laborer	Struck by windlass handle—fractured ribs
17	19 Aug	B. H. Proprietary	"	. . .	. . .	Ed Oatey	Surface hand	Slipped into vat—scalded.
18	28 "	The Lagoon	Bathurst	G. P. L. Guthrie	. . .	. . .	"	Killed by boiler explosion.
19	28 "	"	"	Wm Rawson	. . .	. . .	"	"
20	27 Sept	Lagoon Creek G. M	Sunny Corner	. . .	. . .	— McKinnon	"	Steam valve burst—scalded.
21	5 Oct	Block 10	Broken Hill	C. M. Leslie	. . .	. . .	"	Jambled by truck—abdominal injuries.
22	13 "	Central Mine	"	. . .	. . .	John Murray	Machinery attendant	Attending machinery—crushed fingers
23	27 "	Block 10	"	. . .	. . .	Wm Walley .	Surface hand	Caught between buffers—bruised foot.
24	29 "	" 10	"	. . .	J Neil	. . .	Machinery attendant	Caught in machinery—broken arm.
25	11 Nov	B. H. Proprietary	"	. . .	Ed Rose	Ed. Oatey . .	"	Opening hot water tap—scalded arms.
26	15 "	"	"	. . .	. . .	. . .	"	Cleaning machinery—crushed hand.
27	14 Dec.	"	"	T. J. Vivian	. . .	. . .	Laborer	Collapse of crane—fractured skull.

SUMMARY.

Fatal—Gold, quartz, 1; gold, alluvial, 3; silver, 2, copper, 0 Serious—Gold, quartz, 0, gold, alluvial, 0; silver, 10, copper, 1 Minor—Gold, quartz, 1; gold, alluvial, 0, silver, 8, copper, 1. Total surface accidents during 1897—Fatal, 6, serious, 11, minor, 10

TABLE C.

LEAD Poisoning Returns from Broken Hill Mines for years 1895, 1896, and 1897.

Name of Mine.	1895.	1896	1897.	Summary.
Broken Hill Proprietary	29	21	12	Total number of cases during 1895 89 Total number of men for same period 4,297 Percentage of cases 2.07
Broken Hill South	15	12	4	
Broken Hill North	0	4	1	
British Broken Hill	0	3	0	Total number of cases during 1896 44 Total number of men for same period 5,400 Percentage of cases81
Block 14	4	1	0	
Block 10	1	1	0	
B.H. Junction South	0	0	0	Total number of cases during 1897 17 Total number of men for same period 6,473 Percentage of cases26
B.H. Junction North.	0	0	0	
Central	40	0	0	
Junction Consolidated	0	Total number of cases during 1897 17 Total number of men for same period 6,473 Percentage of cases26
New Pinnacle Group . . . . .	. . . . .	. . . . .	0
Sulphide Corporation	0	2	0	
Silver Hill Junction	0	0	
A.B.H. Consols	0	0	0	

TABLE D.

NUMBER of Men employed in the Metalliferous Mines of New South Wales, and value of Machinery, at 31st December, 1897; also percentage of persons killed and injured.

Mining Districts.	Alluvial Gold.		Quartz Gold	Silver.	Copper.	Tin.		Other	Total.	Value of Machinery.
	Euro-pean.	Chinese				Euro-pean.	Chinese			
Albert	120	13	26	5,816	34	. . . . .	. . . . .	700	6,709	£ 546,351 0 0
Bathurst	1,832	156	1,991	44	176	. . . . .	. . . . .	3	4,202	122,954 0 0
Clarence and Richmond	204	. . . . .	555	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	759	32,710 0 0
Cobar . . . . .	. . . . .	. . . . .	661	14	428	. . . . .	. . . . .	. . . . .	1,103	101,163 0 0
Hunter and Macleay	38	. . . . .	151	. . . . .	. . . . .	20	. . . . .	17	226	15,320 0 0
Lachlan	888	6	4,388	. . . . .	25	. . . . .	. . . . .	. . . . .	5,307	115,200 0 0
Mudgee	1,213	120	769	. . . . .	220	. . . . .	. . . . .	. . . . .	2,322	60,800 0 0
New England	209	129	135	222	. . . . .	567	260	. . . . .	1,522	68,700 0 0
Peel and Uralla	922	173	1,407	70	75	329	118	12	3,106	113,952 0 0
Tambaroora and Turon	483	118	524	3	. . . . .	. . . . .	. . . . .	. . . . .	1,128	17,470 0 0
Tumut and Adelong	1,063	48	914	. . . . .	748	3	. . . . .	. . . . .	2,776	135,130 0 0
Southern	1,056	239	735	35	4	. . . . .	. . . . .	. . . . .	2,069	99,311 0 0
Total	8,028	1,002	12,256	6,204	1,710	919	378	732	31,229	1,429,061 0 0
Persons killed per 1,000 employed.	.885		.571	2.256	1.169	.771		4.098	1.12	. . . . .
Persons injured per 1,000 employed.	.442		1.468	7.575	4.678	. . . . .		. . . . .	2.465	. . . . .

* The stated value of Broken Hill machinery has been considerably reduced this year by amounts "written off," machinery laid aside and removed from the field.

A Comparison of Accidents recorded during the years 1896 and 1897.

Totals from all causes for the whole Colony.										
1896	123
1897	112
As follows:—										
					Fatal.	Serious.	Minor.			Total.
1896	35	36	52	=		123
1897	35	41	36	=		112
Divided into—										
True Mining Accidents.										
					Fatal.	Serious.	Minor.			Total.
1896	32	26	31	=		89
1897	29	30	26	=		85
And Surface Accidents.										
					Fatal.	Serious.	Minor.			Total.
1896	3	10	21	=		34
1897	6	11	10	=		27
Broken Hill only (but included in above).										
Total from all Causes.										
1896	60
1897	61
Divided into—										
True Mining Accidents.										
					Fatal.	Serious.	Minor.			Total.
1896	9	12	12	=		33
1897	14	15	12	=		41
Surface Accidents.										
					Fatal.	Serious.	Minor.			Total.
1896	3	7	17	=		27
1897	2	10	8	=		20

Report on the Junction Point Reefs, known as the Lyndhurst Gold-fields Company (Limited).

Sir,

I have the honor to inform you that on my recent visit to the Mandurama district, on the 15th instant, I inspected the Junction Point Reefs, with the view of selecting sites for diamond drill boring purposes, to ascertain whether or not other undiscovered ore deposits occur at a lower depth.

Professor David, when Geological Surveyor of the Mines Department, and others versed in mining and geology, have already fully reported on the auriferous ore deposits of the Junction Point Reefs, now known as the Lyndhurst Gold-fields Company (Limited). Hence it is superfluous for me to again report on same, especially at the present juncture, when actual mining operations are being conducted on a small scale.

The ore obtained is at present being treated by that able and well-known metallurgist, Mr. Janitzki, under the Cyanide process, in addition to which he is carrying on various experiments to arrive at the best method of treatment for the class of ore occurring in these reefs.

Mr. Frederick Stahl, the Company's mining manager, is also very sanguine in his belief that he will in the near future be able to make the Junction Point Reefs mining operations a decided success.

The Company was formed with a capital of £400,000, and at present they are carrying on preliminary or prospecting operations only. Their greatest work consists of a dam across the Belubula River, and this is without doubt the greatest engineering work of the kind in connection with mining operations in any part of New South Wales, and is well worthy of inspection and deserving of public notice, as the following interesting particulars given me by the designer and supervising engineer, Oscar Schultz, C.E., will show:—"This dam has been built across the Belubula River, about half a mile above the old battery of the Junction Mine, now belonging to the Lyndhurst Company. Several waterfalls occur between the battery and dam, aggregating 150 feet in height. The dam is built in a narrow gorge, through which the river falls another 25 feet, and above which the valley widens out, the river flowing almost level through same for a considerable distance. The intention of the Company is the construction of a reservoir which will store up enough water to supply continuous working power to the battery during the driest seasons, which could be accomplished by building a dam 45 feet in height above the level of the old water-race. The particular site was chosen on account of the apparent good rock formation visible right across the gorge, and the foundation was laid into and across this bed-rock of solid diorite. Several perpendicular rock elevations running parallel with the water were made use of as foundations for buttresses, built to strengthen

strengthen the main wall, which thereby could be reduced in thickness. The foundations of the main wall and buttresses are carried up in concrete masonry to 12 feet above the water-race, or 10 feet above the outlet pipe, the front wall at this level being about 180 feet long and 14 feet wide, increasing in thickness downwards. The buttresses are six in number, 28 feet apart from centre to centre, each 40 feet long, 12 feet wide on top where they abut the inner wall, and narrowing to 6 feet wide at the outer end, thickening downwards, but carried up to the same level as the concrete formation of the main wall. The height of the foundation varies in accordance with the rugged nature of the bottom (bed-rock) from 1 to 30 feet. On the top of these foundations the buttresses are built up on brick masonry tapering from 8 to 4 feet thick, these are united by brick arches of elliptical shape, which decrease in thickness upwards from 4 to 2 feet, and are built at an inclination of 1 in 2, the spandrils between these arches are faced up flush, with concrete, thus on the water side forming a uniform face 36 feet high, with a batter of 1 in 2. On both sides of the central portion of the dam the ground rises and the wall is continued about 100 feet up and into the hill sides to firm rock faces, and concrete masonry with the same batter continued on the water side, but vertical at the back, the width on top being 2 feet. The whole length of the dam measures thus 340 feet, and shows a straight uniformly battered cemented face on the water side while the back is ribbed and shows five chambers under the overhanging arches between the huge buttresses. A bye-wash is constructed in the extension of the dam on the east side 65 feet wide, divided into five sluice openings with a wing wall built on the rock to lead the water clear of the dam. Allowance is also made for occasional extreme flood waters to run over the dam between the buttresses. The race which was left open during construction being arched over will serve permanently as an emergency outlet for which purpose a projection was built out from the main wall with a 5 feet well in it through which the reservoir can be emptied into the gorge. This well is usually closed by a wooden lid 12 inches in thickness, which can be raised by means of a hydraulic ram of 50 tons power, worked by a pump placed at the back of the wall. The service outlet is carried through the main wall by 24-inch cast-iron pipes the entrance of which being formed by a tapering and rising brick culvert, the vertical opening of which together with that of the emergency outlet and of two 6-inch flushing pipes are enclosed by a wooden grating built in the shape of a steep roof and surrounded by a sediment pit. The dam contains in its construction about 6,000 yards of concrete and 500,000 bricks, together with which 5,000 casks of Henmoor cement were used.

The water in the river will be backed up for a length of $1\frac{1}{4}$ mile and about 500,000,000 of gallons of water will be impounded, which with the fall of 225 feet made available by a conduit of 18-inch welded steel pipes will supply 200 h.p. for a term of three months, even if the river should stop running, which seldom, if ever, happens.

The total cost of the dam was about £9,000; it was built by day-labour under the personal supervision of the designer, the eminent and well known civil engineer, Mr. Oscar Schultz.

At the time of my inspection there were about forty men at work, and Mr. Schultz considered that the dam would be completed within a week.

When this is accomplished then the Lyndhurst Gold-fields Company (Limited) are likely to erect extensive crushing and gold-saving appliances, probably including chlorination works.

The present machinery is being driven by a 6 feet Pelton wheel, from which 200 h.p. can be obtained, but the machinery has been erected in a rather unsuitable site, being much cramped for space and it is difficult and costly to make additions. A splendid site is obtainable in the Company's property lower down the river, but within a few hundred yards of present machinery.

The Junction Point Reefs or Lyndhurst Goldfields Company (Limited) site is situated about 7 miles from Mandurama Railway Station.

I have, &c.,

W. H. J. SLEE,

The Under Secretary for Mines and Agriculture.

Chief Inspector of Mines.

Report on Gold-mining in the Yalgogrin District.

Sir,

Yalgogrin, 5 April, 1897.

I do myself the honor to inform you that I have completed my inquiries and inspection on various official matters in connection with the Yalgogrin district.

Owing principally to the almost unprecedented dry seasons, mining matters at Yalgogrin are somewhat retarded. Water for domestic purposes, and almost unfit for human consumption, has to be carted from a tank some 3 miles from the seat of population. Rain is very badly wanted, and to-day there are promising indications of a good downpour.

Another great drawback for the advancement of Yalgogrin is insufficient crushing and concentrating power. When this is supplied then the Yalgogrin district will be able to profitably support a mining population of at least several hundred persons.

The principal payable mines now at work are situated in what was formerly known as Robert Payne's selection, which was resumed for mining purposes in 1894.

The claim known as Mount Allen, George Mott and Party, is 100 feet in depth. Thickness of vein, from 5 to 12 inches. No crushing so far. Formation, granite.

The Autocrat, Foster, McMahan, and Party, 120 feet in depth. Still prospecting.

The Democrat, Thomson and Party, 126 feet in depth. Thickness of vein, 6 inches. The quartz looks promising; no crushing so far. Formation, granite.

The Picanini, Morris and Party. Present depth, 100 feet. Average thickness of vein, from 8 to 12 inches. Formation, granite. This party crushed 75 tons, yielding 150 oz. gold, and they had just completed the second crushing of 21 tons, yielding 103½ oz. of smelted gold, the concentrates of which assayed 6 oz. per ton. The quartz now being raised from the lowest level ought to yield fully 5 oz. of gold per ton.

The Hero Mine, north of the Picanini Claim, is prospecting, but so far unsuccessful.

The Black Ooon, on the same line of reef as the Picanini, under the able management of Mr. W. S. Bowman, has crushed during the last eight months:—

168 tons, yielding 3 oz. 7 dwt. per ton.

20 tons, yielding 2 oz. per ton.

The vertical depth is about 100 feet, but the reef lies very flat, with an E.N.E strike and southerly underlay. Formation, granite.

The

The Adelaide Mine, now known as the Mossgiel Syndicate, under the able management of Mr. Hector Huntley; depth 180 feet; 5 tons crushed from the 150 feet, yielded 7 oz. 3 dwt. per ton. The vein averages nearly 1 foot in thickness. Formation, granite.

There are several other parties prospecting in Payne's late selection, such as the True Blue, the Boomerang, the Defiance, and others, some of which have promising indications.

Jno. Meldrum C.P.—The principal mine at work is that of Cornelius Skelly and Party, who crushed at different times three parcels of quartz, 16 tons, yielding 3 oz. 17½ dwt. per ton; and 10 tons yielding 4 oz. 10 dwt. per ton. Mr. Skelly has, however, had possession of the land since August, 1893, when I first marked off the land for him, under application for permit under the 1889 Act. Others are prospecting under authority, but so far nothing payable has been discovered.

On Waldrum Conditional Lease only one mine is at work, that known as the Eureka, Waldrum and Party (now Waldrum and Foster). This claim was first marked out by me in August, 1893, before the discovery of the Wyalong Gold-field. It was first held under permit by Mr. W. Waldrum and another. The latter, however, left the field, and Mr. W. Waldrum, the owner of the conditional lease has had with him different parties to work the mine.

The following crushings have been taken out of the Eureka Mine since March, 1895:—

March 16, 1895	...	...	...	...	35 tons, yielded 80 oz.
June 8, 1895	...	...	...	...	11 " " 38 "
December, 14, 1895	...	...	...	...	40 " " 100 "
May 21, 1896	...	...	...	...	7 " " 28 "
January 23, 1897	...	...	...	...	20 " " 79 "
Total	...	...	...	...	113 tons, yielded 325 oz.

The quartz now at grass and on transit to Wyalong promises to give a greater yield than hitherto obtained. There are also other mines, such as the Southern Cross and Butler and Party's, within 4 miles of Yalgogrin. I am returning to Wyalong.

I have, &c.,

W. H. J. SLEE,

Chief Inspector of Mines.

The Under Secretary for Mines and Agriculture.

Report on Fitzgerald Valley.

Sir,

13 May, 1897.

In accordance with your instructions I visited and inspected Fitzgerald Valley and its neighbourhood, in the Newbridge district, on the 7th instant, and do myself the honor to inform you that said valley is very extensive, receiving the drainage from well-known auriferous country such as Mount Willis, Sugarloaf, and other quartz veins, as well as from gullies which have yielded payable auriferous deposits.

There is no doubt in my mind that if the Fitzgerald Valley was Crown lands instead of freehold lands, so that prospectors could roam over same and sink wherever they pleased, perhaps a few hundred persons would find payable employment.

The geological formation is granite. The soil consists of rich agricultural land mostly under cultivation, and whatever gold may be found will no doubt be in patches, which in itself, and the large flow of underground water, will always be a great drawback in prospecting said valley. I would especially draw attention to the brow of Church Hill and the upper part of the valley as places worthy of a thorough prospecting. The last gold discovery, which for a time caused some excitement, was made in the bottom of the creek and in the lower portion of the valley, and was abandoned through the heavy flow of water. Had the upper part of the valley been thoroughly prospected the results might have been more favourable.

I have, &c.,

W. H. J. SLEE,

Chief Inspector of Mines.

The Under Secretary for Mines and Agriculture.

Report on the recently discovered auriferous quartz-reefing district on the Moabala Run, near Condobolin.

Sir,

Condobolin, 20 July, 1897.

I do myself the honor to inform you that I have inspected the recently discovered auriferous quartz-reefing district, situated on the Moabala Run (Mr. Scott's), but which discoveries are partly on Samuel Seberry's conditional lease, and partly on Crown lands, about 14 miles north-westerly of Condobolin.

Owing to the late severe drought, and in consequence of the great scarcity of water and feed for horses, there are only about some seven or eight different parties at work at the reefs, or prospecting in the neighbourhood. But the principal discovery so far is that of Winter and Party, which is situated on Samuel Seberry's conditional lease. This party has exposed to view a well defined quartz vein averaging fully 2 feet in thickness, about 10 feet from surface, and the length opened is about 10 feet. Gold can be seen in the quartz, with the naked eye, across the thickness of the reef; but it appeared to me that the richest part is about 8 inches in thickness, nearest to the hanging wall. A prospect knocked out in my presence, and washed, yielded about ¼ dwt. of free gold, and several gold specimens. Present indications are such that, with economical and systematic workings, the reef ought to be made to yield good payable returns. The reef occurs between slate and sandstone, and as further developments takes place it will no doubt be found in lenticular blocks faulting into the footwall.

Westerly of Winter and Party's discovery, and on Crown lands, Auld and Party are at work. This Party has discovered several small quartz-veins, containing fair prospects of gold, but so far not of as great an importance as Winter and Party's. A proper system of prospecting, both by trenching across and along the veins, would very probably bring forth better results than the present system adopted by the party.

About

About $\frac{1}{2}$ mile north-westerly from Winter and Party's, Phifer and Party have about 30 tons of quartz at grass, estimated by them to yield about an oz. of gold per ton. Here the quartz-vein is very broken, of very erratic occurrence, in short shoots, and which are costly to follow. There are a few other claims at work, but so far without any promising results.

The auriferous area in the locality referred to is of considerable extent, and well worth the attention of the energetic, persevering gold-pro prospector, both for alluvial and quartz. The great drawback for thoroughly prospecting this locality is the scarcity of water even for domestic purposes, and the want of any kind of food for horses. The nearest place any provisions are obtainable is Condobolin. But a good wet season would alter these impediments to thorough prospecting very considerably.

The quartz reefs, such as Lady Julia, Reuben Sheppard and Party, Byron and Party, and others, are apparently idle, or doing very little work, notwithstanding which some of these mines contain fairly large bodies of low-class ores, some of which are somewhat refractory. Nevertheless, if a proper system of developing these deposits were adopted, under the guidance of practical and scientific knowledge, they would very probably yield payable returns for capital judiciously invested, although they may prove worthless in the hands of individual miners, or even by the aid of the ordinary quartz-crushing plant. It will only be a matter of time before a number of persons will be profitably employed on the above-mentioned reefs.

Copper deposits also occur on the stock route, within a short distance of the above-mentioned reefs, which is at present held by Mr. B. Roberts, of Condobolin. A shaft has been sunk about 28 feet in depth, the lode averaging from 6 to 12 inches in thickness, some of which is of high quality ore. Still, so far the lode is not sufficiently large to be payable, unless gold should be discovered, of which there appears to be very good indications.

Taking the district as a whole, the prospects of the mining industry are certainly brightening, and the town of Condobolin may yet rank as the centre of an industrious, well-to-do mining population.

I have, &c.,

W. H. J. SLEE,

Chief Inspector of Mines.

The Under Secretary for Mines and Agriculture.

Report on the Mines at Uralla.

Sir,

Uralla, 25 August, 1897.

I do myself the honor to report that, during the limited time at my command, I inspected several mines in the Uralla District.

Mining, especially sluicing, has been greatly retarded of late owing to the severe drought. The principal mines at present at work are the Brown's Paddock Gold-mines (Limited), which is an hydraulic sluicing and dredging company; the Sydney Flat Gold-mining Company, which is a company working for alluvial under the basaltic formation; the John Brown, Kentucky Creek, Uralla, hydraulic sluicing, Cottie and Party, Little Grace Mine, which are quartz mines, and a few others. The John Brown is a sluicing claim worked by water from Kentucky Creek, which is about 2 miles distant from the mine; the water being raised to the head race by means of a large pump. The prospect of this mine is promising, and the yield is likely to give payable returns, as soon as an ample supply of water is obtained, by which constant sluicing can be carried on.

The Brown's Paddock Gold Mines Company (Limited), has lately put into operation a novel and cheap system of mining in alluvial.

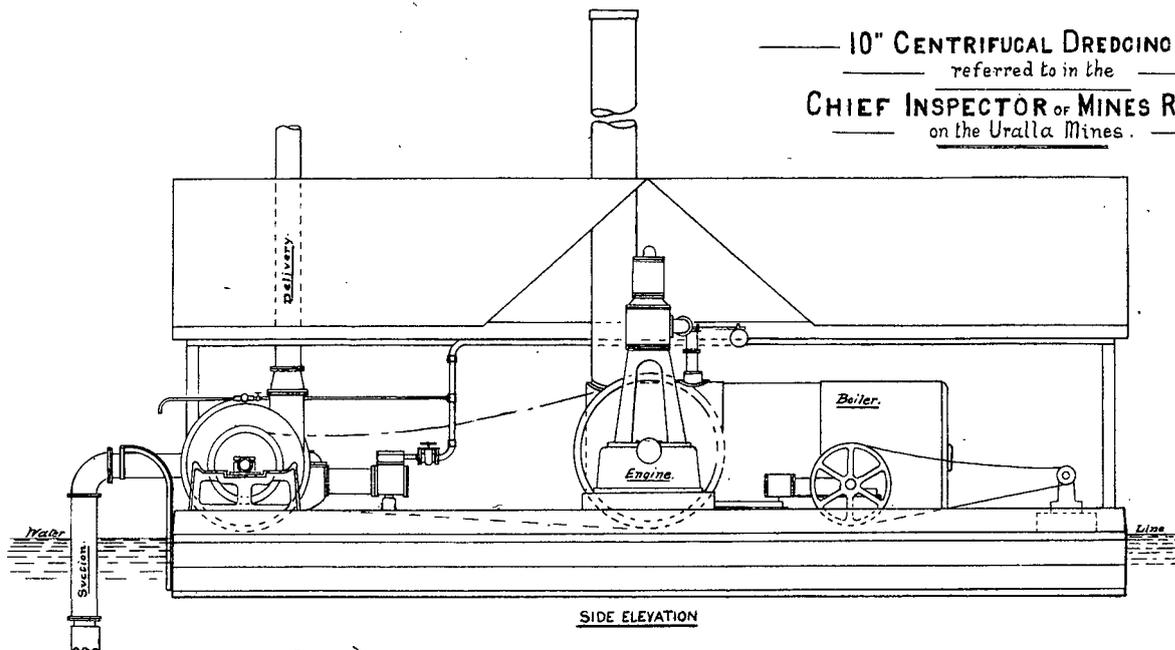
The Uralla Creek which is the site of the operations, has for years past been the depository of the tailings from old Sydney Flat diggings which have filled the creek and adjoining flats several feet above their original level, and all of which carries more or less gold; in addition to which there is, below the sediment, an alluvial deposit resting on the bed rock from 10 to 20 feet in thickness containing gold. But to mine this profitably, the whole of this material on to the bed rock has to be removed and washed, and the debris raised to such a level to provide the necessary fall for sluice boxes, and carry it clear of the workings. In addition to which provision has to be made to ensure the safety of the plant in the event of a sudden flooding of the workings, and also to expeditiously shift the whole plant from point to point as the ground is being worked out, or circumstances demand such to be done. Hence to provide for such contingencies a system of dredging and hydraulic sluicing combined has been adopted. The whole plant is set on a pontoon of sufficient capacity to float easily. This barge or pontoon is of strong pine timber thoroughly secured, the seams and joints are caulked to make them water-tight. The plant consists of a vertical Tandem Compound Steam Engine of 75 h.p. (actual); steam being provided by a locomotive type of boiler working at a pressure of 100 lb. per square inch. The pump for raising the wash stuff and water is of the centrifugal type, 4 feet 6 inch diameter, lined inside with hard cast-iron renewable-liners, the runner is 3 feet 6 inch diameter, and S shaped and made in halves, bolted together to admit a lining of hard cast-iron or steel to take the wear.

The motion and delivery pipes are of steel 9 inches diameter, the suction pipe has a ball and socket with swivel joint, so that it can be raised on a level with the barge when floating.

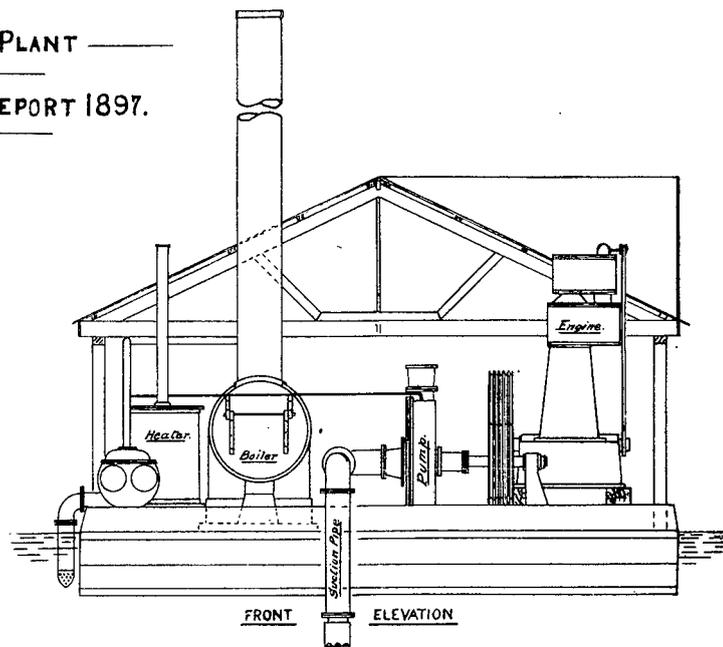
Special arrangements have been made in the bearings of the pump to provide against excessive wear due to the pressure of sand and stones in the water, the bearings are fitted in a pocket which is kept filled with clean water at a pressure greater than the centrifugal pump is working to, and this water leaking through into the pump keeps back the sand which otherwise would grind out the bearings. Steam ejectors are fitted on the suction pipe for priming it in starting. The plant has a capacity to raise 60 cubic yards of ground or gravel and 150,000 gallons of water per hour. The pump raises all the wash dirt into sluice-boxes which stand on trestles at a convenient place close to the barge. These sluice-boxes are 4 feet wide and 120 feet in length, fitted for the whole length with coarse fibre matting and ripple plates acting as under currents.

The

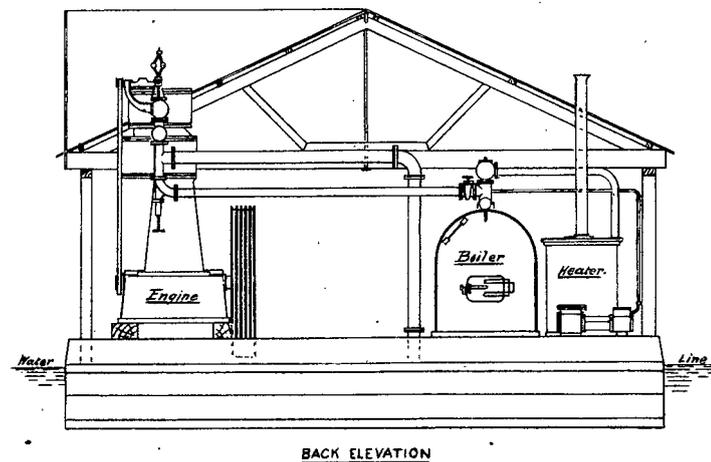
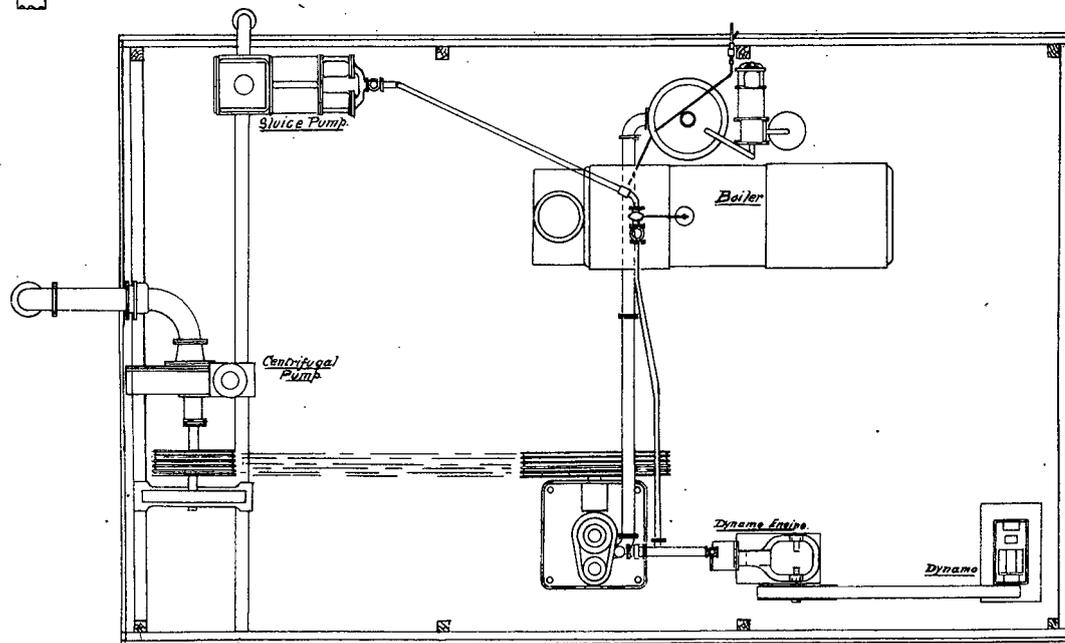
— 10" CENTRIFUGAL DREDGING PLANT —
 referred to in the
CHIEF INSPECTOR OF MINES REPORT 1897.
 on the Uralla Mines.



SIDE ELEVATION

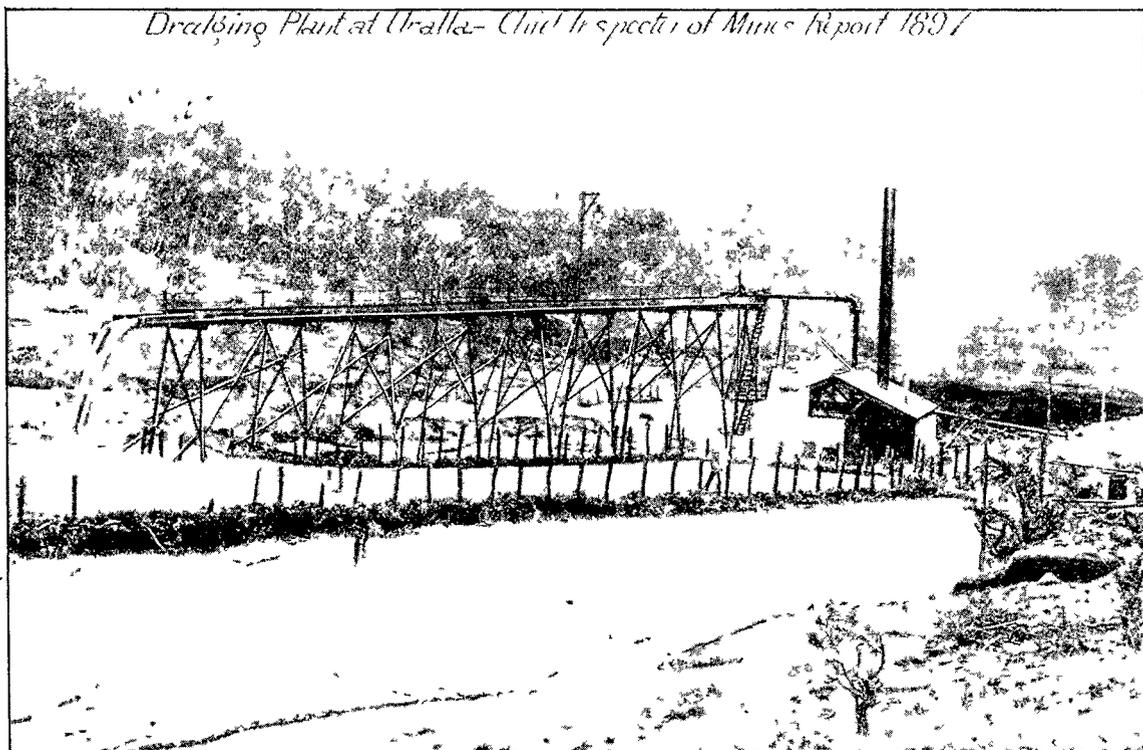
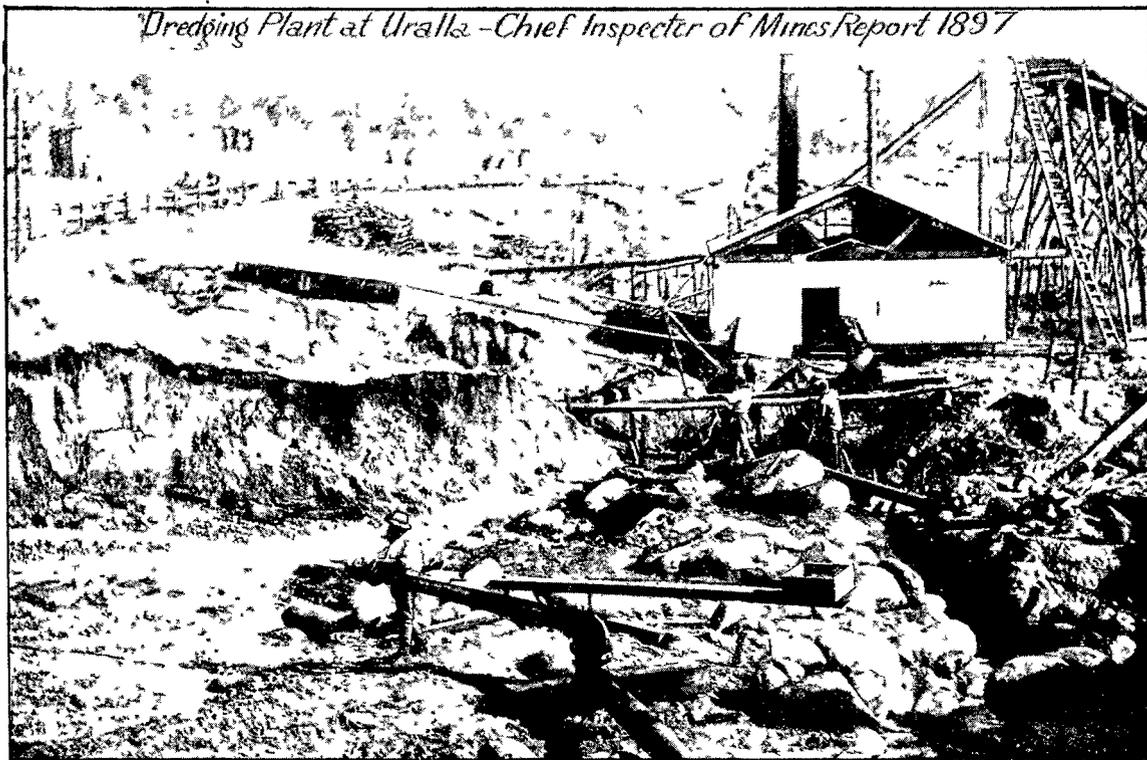


FRONT ELEVATION



BACK ELEVATION

The barge or pontoon also carries an electric light installation for the working of the machinery and mine during night-time. The plan herewith shows the arrangements and disposition of the machinery on the pontoon very clearly, whereas the two accompanying photographs show the plant in actual work, as well as the nature of the excavation and the mode of cleaning up the gold on the bed rock.



The above described system of gold-mining has been in use in Victoria for some time, and is said to be a great success. Reliable estimates of the work done show that the cost of mining has been as low as threepence (3d) per cubic yard dealt with, including all charges of management.

The above named company have so far spent about £4,000 in the erection of a large reservoir (known as Salisbury Lagoon), piping in connection with said reservoir and connecting the mine, and cost of machinery and its erection.

My thanks are due for the principal part of the above information to Mr. L. B. Mitchell, the general manager of the company, under whose able and energetic supervision the whole of these extensive mining operations have been carried on and brought to a successful issue.

The plant was constructed and erected by the Austral Otis Engineering Company (Limited).

I have, &c.,

W. H. J. SLEE,

The Under Secretary for Mines and Agriculture.

Chief Inspector of Mines.

Report on the new Gold Discoveries at Middle Flat, situated about 5 miles from Cooma.

Sir,

Cooma, 25 September, 1897.

I have the honor to inform you that, in company with Mr. Warden J. F. McKensy, P.M., of Cooma, I visited the new gold discoveries at Middle Flat, about 5 miles from Cooma, situated on the freehold of Messrs. Godwin, parish of Bunyan, and notwithstanding a heavy rainfall, a large number of interested persons had assembled to meet us. The discovery was made by Britton and Party in a diorite formation. A trial crushing taken out by them from near the surface averaged 1 oz. 8 dwt. of gold per ton. The quartz vein occurs in lenticular blocks, and although the strike of Britton's vein is N.E., indications are not wanting that discoveries will be made of quartz veins in the abovementioned diorite formation, whose strike will be towards nearly all points of the compass. In fact, it may be termed a network of quartz veins.

I again visited the locality on the 24th instant, after my return from Cowra Creek, but am unable to add anything to my first impressions. Whatever auriferous quartz veins will be discovered in the diorite formation, which stretches from Britton's Reef to within 1 mile of the town of Cooma, will occur in lenticular-shaped blocks, and very probably not one of these blocks will reach a continuous length or depth of, say, 100 feet; hence parties working on these veins must closely observe any faulting that has taken place. From my observation, faults are more likely to occur in the footwall. I would strongly advise prospectors in the abovenamed locality to do their work by trenching, and not sink until a shoot of gold has first been discovered. There may be many auriferous shoots in the quartz veins between Britton's claim and Cooma. Those on the slate formation, such as Stewart and Party, if they discovered payable gold, would be completely distinct from anything discovered in the diorite by Britton's Party.

Edward Perkins and Party are working near Bushy Hill, on the temporary common, in the porphyry formation, within $1\frac{1}{4}$ mile from Cooma, in a narrow quartz vein in which good gold can be seen with the naked eye. Although the vein is narrow, and the country rock very hard, it is, nevertheless, a promising prospecting venture, and if payable gold should be discovered, it is likely to be of a more permanent nature than the quartz veins near Middle Flat.

A syndicate, known as the Dartmoor, is also prospecting about $4\frac{1}{2}$ miles east of Cooma, in a locality known as the Green Hills. So far, the lode, consisting of silver and copper with a small percentage of gold, has been taken out from a width of two to six (2 to 6) feet and to a depth of 20 feet from the surface. The manager informed me that 12 tons of ore he forwarded to the Wallaroo Reduction Works yielded 9 per cent. of copper and 36 oz. of silver per ton; and 6 tons treated at Dapto yielded 14 per cent. of copper and 59 oz. of silver, also gold to the amount of slightly under 4 dwt. per ton. This lode is well worth thorough systematic prospecting.

Cowra Creek, about 25 miles from Cooma, was also visited by me. There are still five different quartz-crushing plants on this field, three of which were crushing. The number of miners has, however, been greatly reduced during the year, notwithstanding that payable gold is still being obtained by a few parties of miners, and further prospecting about the district may probably bring forth favourable results.

Taking the field as a whole, it is more likely to pay parties of miners than large companies.

I have, &c.,

W. H. J. SLEE.

The Under Secretary for Mines and Agriculture.

Chief Inspector of Mines.

Report on dredging for gold in some of the rivers of New South Wales.

Sir,

Sydney, 23 November, 1897.

I do myself the honor to draw public attention to a system of dredging for gold in the rivers of New South Wales. The question is frequently asked by our mining community whether dredging for gold in some of our rivers would yield payable returns for the capital required. So far very little advancement has been made to solve, by actual results, such a very important question.

In New Zealand, river dredging has, of late years, made great strides, and has become a very important industry, owing to the great improvement recently made in dredging and gold-saving machinery.

The first dredge in New Zealand was landed in the early sixties by Ben Knight and Party, which was of a very primitive design, known as the Spoon dredge, being only 45 feet in length, 16 feet beam, and had only one pontoon on which was a derrick and winch.

Some of the present dredges are over 100 feet in length, and worked by steam power, they show as much difference compared with Ben Knight's dredge as our mail steamers did of that date with those of the present time. One of the last and largest dredges built belongs to the Molyneux Hydraulic Dredge Company. Some of the very best steam dredges, with all necessary gold-saving appliances, as well as force-pumps, hydrants, &c., cost about £3,000; but there have been one or two instances where large dredges have been constructed at a higher cost; for instance, the dredge known as the "Dunedin" cost £6,000.

For some time past the Roxborough correspondent of the *Otago Witness* newspaper has given very valuable and interesting detailed information on the construction and working of the several dredges in said district. Time will not permit me to go into full details; suffice it to say that the gold-dredging industry in New Zealand, not only profitably employs a large number of persons on fair wages, but, with the exception of very few instances, the capital invested yields profitable returns.

This

This being so, the question naturally arises—are there no rivers in the Colony of New South Wales which traverse through extensive tracts of auriferous country worthy of a test for gold dredging purposes? There can be but one answer to such a question, which is that there are very favourable indications that some of our rivers will yield highly payable returns for any capital which may be invested for gold-dredging purposes. The tub, cradle, long tom, and even ground sluicers are fast disappearing on our rivers, notwithstanding thousands or even hundreds of thousand ounces of gold were won with these primitive appliances by the energetic and persevering gold-miner. But not only the individual miners, but also companies have always failed to follow the auriferous strata from the banks into the river owing to the flow of water. In some instances shafts have been sunk and drives constructed under the river, only to be swamped before the auriferous strata in the river-bed could be reached; hence dredging the river appears to be the only feasible method by which the gold known to exist there can be won.

Each dredge would cost about £3,000, and about ten persons are employed on one.

I have inquired into this important matter very considerably and have given the question of dredging on some of our rivers for gold-producing purposes very careful consideration, and feel confident that in the near future successful dredging for gold will be an accomplished fact, not only in the Macquarie and Shoalhaven Rivers, but also in other rivers in the north, south, and west.

There are large numbers of instances where a good deal of time and money has been spent to turn creeks and rivers from their natural course, but unsuccessfully, owing to the occurrence of floods, and it is in such parts where dredges could be introduced and successfully worked.

Objection may be raised by some persons unacquainted with river dredging, of the removal of bars in the shape of outcrop of rocks which occur in some parts across river-beds, and form the natural embankment of deep and extensive water-holes, and which water-holes are certainly very valuable especially during times of dry seasons. These objections may be answered by the fact that dredges are not capable of removing solid substances or solid rock such as would form the embankments of natural water-holes in our river-beds, and even if such bars could be removed by river dredges, provision could be made in leases, or even registration of claims, compelling intending dredgers not in any way to interfere with such bars.

Property holders along banks of rivers would naturally object, and in many instances with good valid reason, against intending dredgers of river-beds as that mode of producing gold would be quite a new feature. But I think that such objection may be easily overcome by mutual forbearance and consent of the owner by agreement of parties concerned as, in most instances, only the bed of the river would be required and the land-owners' consent to access for persons and machinery to and fro.

I have, &c.,

W. H. J. SLEE,

Chief Inspector of Mines.

The Under Secretary for Mines and Agriculture.

Further report on Dredging for Gold in the Rivers of New South Wales (Appendix to his Report of 23rd November, 1897.)

Department of Mines and Agriculture, Chief Inspector of Mines Branch,

Sydney, 24th November, 1897.

Sir,

In submitting to you further detailed information in connection with dredging for gold in some of the rivers and creeks of New South Wales, I do myself the honor to add to my report of the 23rd instant, as an appendix, the following information on some of the dredges in use on the rivers and creeks of New Zealand, and other matters in connection with said dredging.

It must be borne in mind that dredging for gold in the rivers and creeks of New South Wales, will have more difficulties to contend against than the dredging on the more extensive rivers of New Zealand. As a rule, the rivers in New Zealand form a continuous water-shed for several miles in length, and in several instances of great breadth, whereas, the rivers in New South Wales (with the exception of the Clarence and Upper Murray, where successful dredging may also be carried on) are during the principal part of the year, and especially during dry seasons, nothing but mere chains of water-holes. Hence the erection, and moving of pontoon and dredges, is more difficult than the same work would be in New Zealand. Again, in New Zealand it has been proven by actual results, that dredging for gold is yielding payable returns, and therefore the industry is established on a sound foundation. Whereas, the pioneer prospectors who undertake to start the gold-dredging industry in New South Wales, will have for some time to come grope, as it were, in the dark; erect their dredges, and spend some thousands of pounds sterling, before they can actually start their prospecting dredging operations. This being so, the pioneer prospector of river or creek dredging in New South Wales, deserves (short of any Government subsidy) every possible justifiable encouragement.

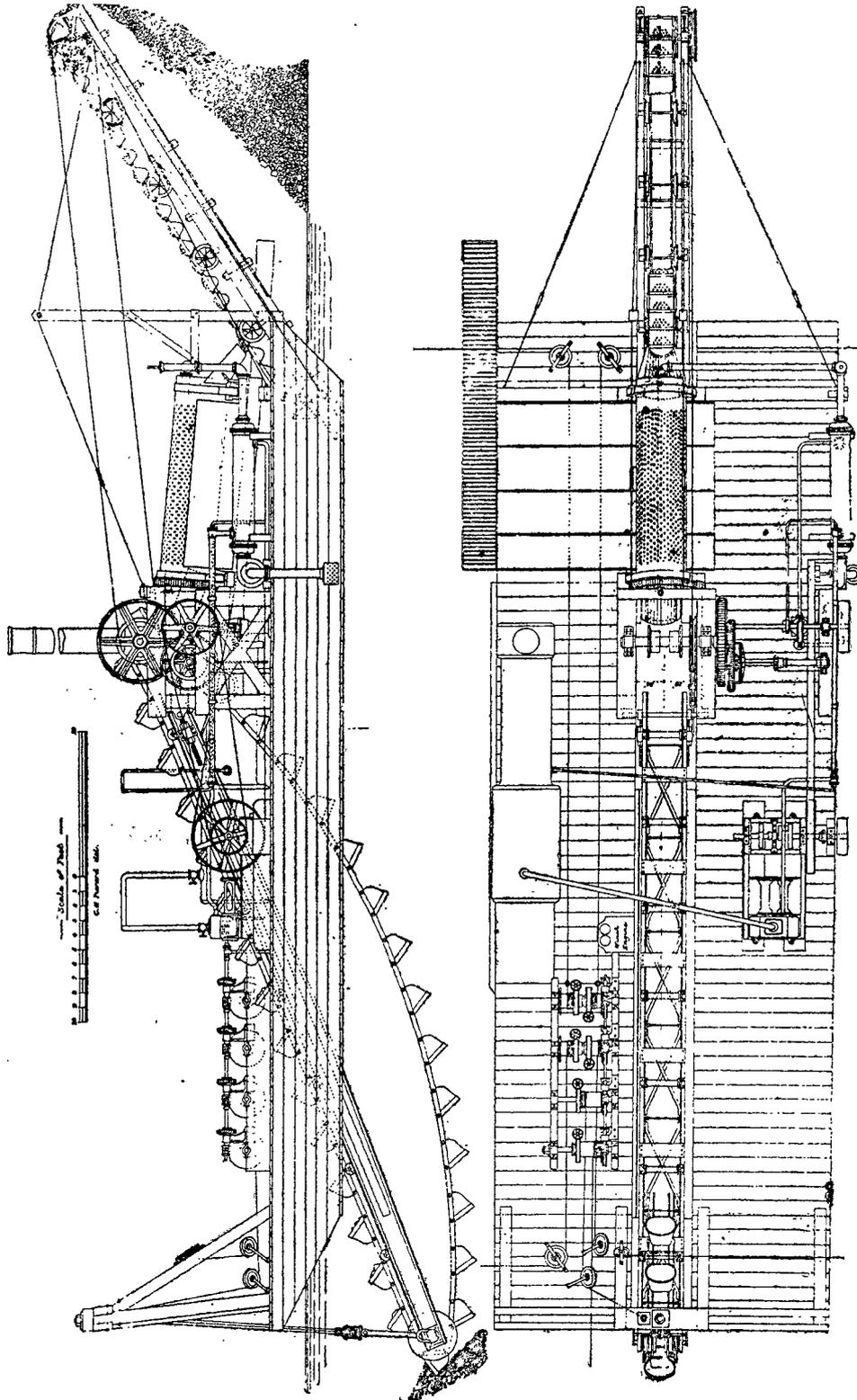
A larger area (lease or claim) should also be allowed of the rivers or creek beds to the prospector, or others who follow in their wake, than the area which can be lawfully held in New Zealand, for reasons as above stated: namely, the contention of greater difficulties. If once the dredging industry has been fairly started and worked on a satisfactory basis, not only a large number will find profitable employment, but the rivers and creeks will rather be improved, than injured; and residents and property-owners on the banks of said rivers and creeks, will be greatly benefited.

Not only are some of the rivers in New Zealand yielding payable returns, but dredges are actually at work with payable results in some of the river tributaries, and creeks. What has been done in New Zealand can be done on some of the rivers and creeks of New South Wales; even if not on such an extensive scale as in New Zealand. But when it is considered that from 2 to 3 grains weight of gold per ton give profitable returns, then there can be but little, if any doubt, that a great deal of successful river-dredging will, in the near future, be carried on in this Colony.

To give the public a thorough knowledge of the plants used in New Zealand for gold-dredging purposes, I submit a drawing for publication with my Annual Report of one of the typical dredges at present in use namely, the "Mannorburn Dredge," which was lately built by Cutten Bros., Consulting Engineers, of Dunedin for Park Bros., and placed on the Manuherikia River, and is one of the best designed dredges in New Zealand, both for dredging and gold-saving purposes. There are, however, dredges in New Zealand nearly if not fully double the size of that mentioned above.

I herewith give Messrs. Cutten Bros', Consulting Engineers, own version as to river dredging in New Zealand:—

Dredging for gold in Otago has recently developed into a very important branch of the mining industry, and is with good and modern appliances extraordinarily profitable. There are at present forty-six bucket-dredges at work in Otago, and five more being built nearly completed, and the probability of twelve more during the next twelve months. The greater number of these dredges are working on the Clutha River and most of them are doing well, some have actually paid off their total cost of construction in a few months.



MANORBURN DREDGE.
The blocks for these illustrations were kindly lent by the proprietors of the *Australian Mining Standard*.

The "Manorburn Dredge," plan of which is published herewith, was designed by Messrs. Cutten Bros., and now working on the Manuherikia River, a tributary of the Clutha, at Alexandra. This dredge is doing very well, and is averaging about 25 ounces of gold per week, while the washing expenses are covered by 9 ounces per week. The work is for 144 hours, as the dredge runs night and day, except Sunday.

This dredge is 75 feet long by 24 feet wide, and 5 feet deep. It is built of Kauri throughout, with the exception of a few bluegum frames. The

The engine is a compound condensing one of 12 horse power nominal, capable of working up to about 48 horse power but only 30 horse power is required. The boiler is a 16 horse-power nominal, and is of the half Cornish multitubular type.

The buckets have each a capacity of 3 cubic feet and deliver at the rate of twelve buckets per minute, which would make 80 yards per hour but as it is impossible to keep the buckets always running full, the average will be brought down to about 60 cubic yards per hour, or 7,800 yards per week, of 130 hours being considered fair average dredging time for a week.

The buckets are made of steel and have hard steel connection-links, pin and cutting lip, and they are made of a peculiar shape to retain the dirt freely. The ladder in which the buckets work is made of steel, it is 45 feet long, and is capable of dredging to a depth of 25 feet below the water level.

The dredge is moved about while working and the ladder lifted or lowered by means of a special steam winch which has seven separate drums or barrels, with flexible steel wire rope attached; any single drum can be worked separately, or all seven simultaneously.

The gear is all made very accurately and strong, to meet the shocks, and strains, which come upon it, when the buckets come in contact with any very hard substance such as large stone, or rocky bottom.

The wash dirt after being raised is delivered into a large moving perforated steel cylinder, or screw, about 15 feet long, by 42 inches in diameter.

Through this cylinder, along the top, there is a perforated pipe, 8 inches in diameter, supplied with water from an 8 inch centrifugal pump. The water washes all the fine dust and gold through the perforations in the revolving cylinder on to a sieve of tables below, about 12 feet long and 12 feet wide, covered with cocoanut matting which catches the gold.

If there is any shotty or nuggetty gold it is advisable to put more iron ripples on the upper end of the matting where the gold falls. The coarser dirt or stone pass out of the lower end of the screen or cylinder down a short shoot into an elevator and are carried up dry and stacked to any height that may be found necessary. This elevator is not necessary in all cases. The above-named dredge cost, in thorough working order upon the claim, about £3,200. Another dredge of similar dimensions, but without an elevator, cost £2,900.

There are other dredges which cost £4,000, £5,000, and £6,000. The latter is the largest dredge built in New Zealand. It is to dredge 38 feet deep and elevate its tailings 40 feet above the water level behind it. It is to work a high beach on the banks of the Clutha River. The cost of a dredge to the site of dredging operations depends to a certain extent upon the locality, as the carriage of machinery and timber are very heavy items.

The working expenses of a dredge also depends upon the locality; for instance, fuel may be a very heavy item when it has to be carted a great distance. Again, if the claim is very rough the wear and tear to the buckets and machinery is considerable. In Otago some of the dredges pay their working expenses on an average of one grain of gold to the cubic yard of dirt lifted. The Jutland Flat dredge, for instance, working on the Waipiri River flat during the year obtained an average of 1.23 grains of gold to the yard of dirt lifted; and yet, on this small yield of gold dividends amounting to £1,230 were paid for the year. Again, in another year with the same dredge the average of gold obtained was 1.35 grains per cubic yard, and that year £1,100 odd was paid in dividends, in addition to £750 towards cost of litigation. In the case of this dredge coal is rather an expensive item and the dredge is not a modern one.

On the Clutha River, between Alexander and Clyde, there are at present ten large dredges working and without exception they are all doing well. The ground there is from 12 feet to 30 feet deep, which usually consists of from 4 to 6 feet of original washdirt covered with loose gravel, the latter of which contains little or no gold.

Higher up the river there is a dredge which was recently dredging to a depth of 42 feet below the water, lifting about 29 feet of gravel and only about 12 inches of auriferous wash. This wash was so rich that the dredge obtained in one week 177 ozs. of gold and over £2,000 worth of gold in thirteen weeks.

There is not the slightest difficulty in saving the gold as the dredges are now made with the most complete and efficient appliances, more so than any other class of alluvial mining machinery; consequently there is little or no gold lost.

Some dredges are paying handsomely, working in parts which have already been worked by hand.

The following may be taken as a fair average of the dredge workings in Otago, where fuel can be obtained at a reasonable price:—

				Wages.		
				£	s.	d.
Dredge-master and engineer combined	...	...	...	5	0	0
Three (3) firemen, £2 10s. each	...	...	...	7	10	0
Three winchmen, one at £3, two at £2 10s. each	...	...	...	8	0	0
Fuel, wear and tear of machinery, and other incidental expenses	20	0	0			

10½ ozs. of gold, at £3 17s. 6d. per oz. would cover all working expenditure.

I may here mention for public information that the Etrick dredge is a similar type and has done, and is doing, successful work. The length of this dredge is 90 ft., beam 20 ft., depth 4 ft., width of well 4 ft., length of ladder 60 ft., number of buckets 38, capacity of buckets 2½ cubic ft., speed per minute 12 buckets. It is estimated that 1,000 cubic feet of washdirt are lifted per hour, and reckoning that the cubic yard weighs about 1½ tons, the quantity lifted per hour is about 55 tons. The buckets are connected with single links, some are using double links.

The gold saving appliances are very good; the main run is 40 feet long and projects for some distance beyond the stern. The return boxes comprise the *save all* or *catch all*, 15 feet long. Plush is used in the top box of the main run, also in the "save all" or "catch all" and is taken up after every shift.

Cocoanut matting is used in major part of the boxes. Water for sluicing is supplied by a 9-inch centrifugal pump driven by belting. The average depth dredged from the water level is 30 feet.

The Dunedin dredge is one of the largest, if not the very largest, dredge in New Zealand; it cost £6,000. The dredge is 80 ft. long and consists of two pontoons, one 7 feet the other 14 feet in beam and 7 feet depth. In the body of the larger pontoon are placed the boiler and engine, and along the pontoon, to protect them, are placed two strong pieces of timber. The well is 5 ft. 6 in. broad. The ladder is 60 feet long, and there are thirty-two buckets, the capacity of each being 3 cubic feet. The gantry is of angle iron, which is also used for stays in the pontoon. The dredge is worked by steam power, and is

working at a depth of 32 feet, the washdirt as it comes up in the buckets falls into a hopper, thence into a revolving screen about 10 feet long. The stones and coarse shingle fall from the screen down a semi-circular iron shoot back into the river, the fine material from the screens falls on the tables, which are about 10 ft. in width, covered with cocoa-nut matting, having a small mesh-wire screen on top. Water for sluicing purposes is supplied by centrifugal pump, worked by sets of belting off the main shaft. Most of the water passes over the tables, and a perforated pipe runs through the screen. There is also an overflow channel, which washes away the material after passing over the tables which are placed at right angles to the screen.

Having gone fully into detail matters in connection with river and creek dredging in New Zealand, I trust that they will be found to be instructive and interesting to the mining community, and so become a guide to the successful river and creek dredging for gold in New South Wales.

So far only Messrs. Garland & Low, and a Mr. Parks, of New Zealand, have taken the initiative steps towards river dredging by taking up applied-for leases on the Macquarie River, a few miles from Stuart Town.

I have, &c.,

W. H. J. SLEE,

Chief Inspector of Mines.

The Under Secretary for Mines and Agriculture.

Section of Bore No. 7 (No. A Diamond Drill),
at Forest Reefs.

Nature of Strata.	Thickness.	
	ft.	in.
Alluvial	21	6
Broken grey basalt.....	6	0
Hard honey-combed basalt	5	7
Blue honey-combed basalt	7	1
Hard grey basalt	8	1
Hard blue basalt.....	52	7
Red honey-combed basalt.....	12	0
Very hard brown basalt	14	2
Red honey-combed basalt	9	0
Hard blue basalt.....	12	3
Red basalt, much broken	12	3
Red basalt	6	0
Blue basalt	16	6
Hard blue basalt.....	24	3
Blue basalt	10	2
Black clay	2	4
Soft clay bottom.....	5	0
Total depth of Bore.....	224	9

Compiled from the Foreman's Weekly Report Sheets.

Section of Bore No. 8 (No. A Diamond Drill),
at Forest Reefs.

Nature of Strata.	Thickness.	
	ft.	in.
Alluvial	23	0
Grey basalt.....	22	0
Blue broken basalt.....	34	0
Hard blue basalt.....	22	0
Red honey-combed basalt.....	19	0
Blue honey-combed basalt	17	6
Blue basalt	51	0
Blue honey-combed basalt	9	0
Blue clay	2	6
Soft red diorite	6	0
Total depth of Bore.....	206	0

Compiled from the Foreman's Weekly Report Sheets.

Section of Bore No. 9 (No. A Diamond Drill),
Forest Reefs.

Nature of Strata.	Thickness.	
	ft.	in.
Alluvial	26	9
Hard blue honey-combed basalt	15	3
Hard blue basalt.....	60	0
Red honey-combed basalt	8	0
Hard brown basalt.....	6	9
Hard blue basalt.....	8	0
Honey-combed basalt.....	4	0
Brown basalt	4	9
Hard brown basalt.....	3	3
Brown honey-combed basalt.....	5	6
Brown honey-combed basalt (much broken)	10	3
Hard blue basalt.....	67	3
Blue clay.....	2	3
Sandy clay bottom	2	6
Total depth of Bore.....	224	6

Compiled from the Foreman's Weekly Report Sheets.

Section of Bore No. 10 (No. A Diamond Drill),
Forest Reefs.

Nature of Strata.	Thickness.	
	ft.	in.
Alluvial	29	0
Blue broken basalt.....	4	6
Blue honey-combed basalt.....	6	3
Very hard blue honey-combed basalt	5	0
Very hard blue	8	3
Hard blue basalt.....	53	6
Brown honey-combed basalt.....	8	0
Red broken honey-combed basalt.....	11	3
Red honey-combed basalt	4	0
Hard brown basalt.....	15	0
Blue honey-combed basalt.....	10	6
Grey broken basalt.....	14	9
Blue basalt	8	6
Blue honey-combed basalt.....	5	0
Broken honey-combed basalt	5	0
Clay and broken basalt	5	0
Blue broken basalt.....	11	6
Sandy clay bottom	4	0
Total depth of Bore.....	209	0

Compiled from the Foreman's Weekly Report Sheets.

Section of Bore No. 1 (No. 7 Diamond Drill),
Junction Point Reefs, near Mandurama.

Nature of Strata.	Thickness. ft. in.
Alluvial	66 0
Broken slate	78 11
Granite	10 9
Slate.....	0 4
Soft pyritical rock, with small rings	4 1
Soft shale.....	2 1
Black slate	9 9
Hard slate	3 7
Hard broken slate	7 3
Hard black slate.....	3 6
Slate.....	3 6
Hard black slate.....	7 0
Slate.....	8 9
Soft grey formation	11 3
Grey chert rock	10 4
Hard slate	3 0
Grey pyritical rock.....	2 9
Slate.....	1 7
Hard slate	20 10
Slate.....	7 6
Slate, much broken.....	2 1
Slate.....	5 5
Total depth of Bore.....	270 3

Compiled from the Foreman's Weekly Report Sheets.

Section of Bore No. 2 (No. 7 Diamond Drill),
Junction Point Reefs, near Mandurama.

Nature of Strata.	Thickness. ft. in.
Alluvial	5 0
Soft formation, no core	10 0
Soft broken slate	10 0
Broken slate	9 0
Red clay formation	1 0
Broken slate	19 6
Soft broken slate.....	14 9
Red clay formation.....	2 6
Broken slate	2 6
Light granite	4 9
Broken slate.....	5 0
Hard broken flint	2 6
Very hard broken blue chert	4 3
Very hard broken slate	3 3
Hard broken slate	1 3
Hard light granite	9 3
Light granite, with mundic	2 0
Hard granite and mundic	3 3
Very hard blue flint	3 3
Hard granite, with mundic	1 6
Hard granite and mundic	6 3
Hard broken slate	5 0
Hard blue broken slate	11 3
Hard blue slate	4 0
Hard blue broken slate	13 6
Hard broken slate	7 0
Blue broken slate	5 6
Hard broken slate	3 0
Very hard broken blue slate.....	2 6
Hard broken blue slate	6 6
Hard broken slate	1 6
Hard blue broken diorite	3 9
Hard broken diorite	16 3
Hard granite	12 0
Hard broken granite	3 0
Hard granite	4 0
Hard broken slate	10 6
Total depth of Bore.....	230 0

Compiled from the Foreman's Weekly Report Sheets.

Section of Bore No. 3 (No. 7 Diamond Drill),
Junction Point Reefs, near Mandurama; in
course of progress.

Nature of Strata.	Thickness. ft. in.
Alluvial	38 0
Soft broken slate.....	17 9
Broken slate	11 0
Hard broken granite	7 9
Broken granite	2 6
Gray slate	5 9
Hard blue broken slate	4 0
Hard blue diorite	8 9
Hard blue slate	6 3
Hard broken chert	4 0
Hard broken slate	4 6
Hard broken slate with pyrites.....	1 3
Very hard broken slate	8 0
Hard broken cherty slate	5 0
Hard broken slate	27 0
Total present depth of Bore	151 6

Compiled from the Foreman's Weekly Report Sheets.

Section of Bore (No. 8 Diamond Drill), Grassy
Gully, near Nowra.

Nature of Strata.	Thickness. ft. in.
Felsite	84 11
Hard blue chert or flint.....	3 2
Felsite	171 6
Quartz vein	1 0
Felsite	39 5
Total depth of Bore.....	300 0

Compiled from the Foreman's Weekly Report Sheets.

Section of Bore No. 1 (No. 8 Diamond Drill).
Second Expedition to the Island of Funafuti,
Ellice Group, under the leadership of Pro-
fessor David, B.A., F.G.S., &c., University of
Sydney.

Nature of Strata.	Thickness. ft. in.
Coral	158 0
Coral and coral sand	111 0
Coral sand	10 11
Coral.....	0 1
Coral sand	93 6
Coral.....	4 9
Coral sand	36 9
Coral.....	2 0
Sand	8 0
Coral sand	5 0
Coral.....	2 6
Sand	2 6
Coral and sand	14 8
Coral.....	2 10
Sand	4 6
Coral sand with small bands of coral	23 0
Coral sand	7 0
Coral and coral sand	39 0
Coral	29 0
Sand	2 0
Coral sand	41 0
Coral.....	5 0
Coral and sand	40 0
Coral.....	55 0
Total depth.....	698 0

Compiled from the Foreman's Weekly Report Sheets.

Inspector Milne's Annual Report.

Sydney, 20 January, 1898.

Sir,

I have the honor to submit my annual report for the year 1897.

The whole of my time has been spent in the Western District, where the following places have been inspected, some of them as often as four times:—

Bathurst, Blayney, Byng, Brown's Creek, Burruga, Black Springs, Burnt Yards, Binni Creek, Bobadah, Byrock, Burrendong, Burra Burra, Booramugga, Bunnamagoo, Capertee, Clear Creek, Cheshire Creek, Crudine, Caloola, Carcoar, Canowindra, Cowra, Cargo, Cobar, Euramby, Eurenderry, Flyer's Creek, Forest Reefs, Galley Swamp, Gilgunnia, Girilambone, Hill End, Hobby's Yards, Ilford, Junction Point, Lewis Ponds, Lucknow, Mudgee, Mullion Creek, Mitchell's Creek, Molong, Mandurama, Mount Allen, Mount McDonald, Mount Hope, Mount Drysdale, Mount Boppy, Mumbil, Macquarie River, Newbridge, Nymagee, Nangeribone, Oberon, O'Connell, Perth, Palmer's Oakey, Rock Forest, Rockley, Restdown, Sofala, Sunny Corner, Stuart Town, Tuena, Trunkey, Vermont Hill, Walli, Warne, Woodstock, Wellington, and Wattle Flat.

The total number of mines inspected is 482, of which some were inspected under application for aid out of the Prospecting Vote, in the execution of which I travelled 7,589 miles.

Cobar is the most active field, and the Great Cobar Copper Mine the most prosperous, although the average yield per ton is not so high as the previous year.

The increased tonnage of ore raised and smelted makes amends for the slight decrease in the returns.

Two blast-furnaces have been kept continuously at work on the mine reducing the ore, and a third is just completed, and will further increase the returns in the future.

Underground there is an abundance of ore showing, and the mine never looked so well for a permanent supply as at the present time.

The principal drawback being the want of a good main shaft for hauling purposes, which would greatly augment the output of ore, as those now in use are too small, and tend to hamper the general working of the mine both underground and on the surface.

The system of mining adopted is to back-stope and fill in with mullock, which, owing to the immense bodies of ore broken out, has to be sent from the surface. In stoping, so as to save time and economise, the stope is beaten out, and the ore allowed to remain for the men to stand on until a fair stope is beaten out (slightly arched for strength). It is then trucked out. When this is done the open space is timbered up with pig-styes or bulkheads and filled in, leaving one, or where the lode is very wide, two levels formed in the timber.

The mode of timbering is to lay long stringers on the bottom of the stope (for convenience of picking up the timber again from below), and on these timbers pig-styes are built, and filled in between, and levels constructed. Owing to the immense bodies of ore there must at times be a large amount of ground standing open.

When breaking the ore the miners can thoroughly examine the back of the stope, and as it is not allowed to stand for any length of time after the ore is trucked out before filling, there is very little chance of it "winding."

As an example of the method of stoping, suppose the level passes through a large body of ore, a main pass is sunk from the level above to connect, and a leading stope the full width of the ore is started, this stope is worked out gradually forward and upwards, the men standing on the broken ore, the full height of a stope usually being about 20 feet, this stope is carried on to the mullock pass or some distance ahead.

The timber is then put in, thus forming the levels, and sufficiently high for a strong foundation for filling, passes are also rearing up through the filling at convenient places; the filling is then run down the pass and spread over the top of the timber, filling up the open spaces and to within a few feet of the back of the stope. All the timber is scarfed out to prevent slipping. In the shallower workings they are working in and around old stopes where the nature of the ore bodies are more rotten.

In the olden times when these bodies of ore were worked they evidently followed only the richer bunches of ore which appear to have been principally in the centre of the formation, leaving large quantities of gossan ore on the sides and the centre filled with mullock, which has now to be run out and the flakes of ore broken down from the sides back to the walls which are hard. In working these stopes it is the practice to work up to the back of the stope for about 10 feet in height, then run the mullock and break down the ore.

This mine is in a very prosperous condition, and to all appearances likely to return handsome profits for sometime to come.

It has been proved beyond doubt that in depth all the large bodies of ore in this district will eventually be aurocupriferous formations, as has been proved by the Cobar Mining Company, which for years gave highly remunerative returns as a gold mine.

Amongst the gold mines at work the usual satisfactory returns have been obtained and a substantial increase in the erection of machinery on the field which can boast of being the first district in the Colony to have 100 stamps at work on one mine.

This plant is erected on the Cobar Mines Company (late Fort Bourke Mine), and consists of two separate plants of fifty head of stamps, parallel to each other under the same roof, which may be termed a twin battery, of American manufacture, the stamps weigh 800 lb. each, and are driven at the rate of 105 drops per minute with a 5 in. drop crushing 300 tons every twenty-four hours. They are driven by two separate horizontal engines, each of 150 h.p., made by Whitlock, with Scott and O'Neill's patent cut-off; steamed by four steel boilers set in furnaces, with two boilers in each furnace and return flues (150 in each boiler) to front of furnace, working at a pressure of 80 lb. per square inch. The ore is fed direct from the tunnel connecting with the open cutting to the battery first over grizzlies, all rock too large to pass through the grizzly is fed by hand through the rock-breaker falling into the hoppers from which it automatically passes through the challenge ore feeders to the mortars.

The machinery is substantially erected and works very smoothly.

There is one serious difficulty, that is the storing of the tailings which are to be cyanided later on.

The results from this mill will be watched with considerable interest, as there is diversity of opinion as to whether amalgamation and later on cyaniding or dry crushing, and direct cyanide treatment, will be the most economical for this district.

The

The success or otherwise of this plant will be a guide for others as to which is the better treatment of the low-grade ores of this district, which must be handled in large quantities on economical lines to give profitable returns.

There is up to the present only one cyanide plant on the field which has treated successfully some thousands of tons of tailings from the Fort Bourke Mine and others.

In the coming year there will be at least three others at work, one being now in course of erection and the other two started early in the year.

Along the whole line of lode are immense bodies of low-grade ore which will sooner or later be mined and treated with satisfactory returns. There is a very bright future for the Cobar District which will be one of the largest, if not the largest, mining district of the Colony.

There is at present at work in the district 195 head of stamps; four Huntingdon mills, each equal to five stamps; the total crushing capacity being about 500 tons per day. There are also three blast furnaces, two of 80 tons and one 40 tons capacity, on the field.

In the mines generally the timbering and securing is well done and every care taken for the protection of the men employed.

In most of the mines the country rock is good standing ground, being diagonal to the lode and banded with ironstone veins.

Boppy Mount.—Considerable energy is being shown in prospecting the Burra Burra Copper-mine.

The main shaft is sunk to the depth of 200 feet and crosscut west in lode formation some 70 feet, carrying bunches of sulphide ore which appears to be the back of a body of sulphide ore, to prove which it is intended to continue sinking the main shaft and crosscut at a deeper level. A small winding plant has recently been added to the mine.

Some 3 miles north-east of Burra Mine are the Florida Reefs, of which so far nothing can be said further than that it is a promising locality for prospecting.

Again south some 13 miles is another very promising locality for prospecting known as the Restdown Reefs, which occur in lenticular blocks in slate country. Some of these have been proved to carry payable gold, notably the Good Friday and Jeffery's Mine; from both of these crushings of 2 oz. and upwards per ton have been obtained.

The reefs are not large, being from 2 or 3 inches to 18 inches in thickness in soft country, easy to prospect, the only drawback being scarcity of water, which has to be carted a distance of about 4 miles.

In the Nymagee district a great improvement has been made on the Nymagee Mine, particularly on the surface, in the erection of blast furnaces to replace the old reverberatory furnaces; also tramway and hauling engine for the economical shifting of ore from the open roasting kilns to the blast furnaces, and an electric lighting plant and a thorough overhaul of all the old machinery has been made.

The results have not been as satisfactory as was expected. This is not in any way reflecting on the mine as an ore producer, but in the difficulty in keeping a stock of coke and firewood on the mine owing to the bad state of the roads in the wet season.

In the mine no new bodies of ore have been discovered, the principal work being the working out of bunches of ore left by the previous owners as too poor for the old reverberatory process.

There are still large bodies of sulphide ore in sight in the mine. This, with the amount of ore now being obtained from the old dumps, will no doubt give profitable returns for some time to come.

Bobadah.—The Overflow Mine, which is still in its infancy, will, when properly opened up, considerably add to the mineral output of this district.

On this mine it was originally proposed to erect blast furnaces for the treatment of the ore; but as there are large bodies of gossan in sight carrying gold, it has been decided to treat these bodies of ore by dry crushing and direct cyaniding, for which a Krupp ball mill and cyanide plant is now in course of erection.

A fair amount of prospecting is now being done in this district with every prospect of good results.

Mount Hope.—A considerable improvement in the output may be looked for from this district, particularly at the Great Central Mine, where a number of hands are now employed, and there is every appearance of this mine being a large producer for some time to come.

It is the intention to work largely on the open cut system, and a concentrating plant is in course of erection for the material raised from the cutting, which is a network of small veins of carbonate and grey ore intermixed with the country rock.

The Mount Hope Copper-mine is worked by a party of tributors in a very creditable manner considering the small margin of profit they have to work on, more especially when we see so many mines in the hands of tributors pig-rooted, gutted out, and mullocked up.

The same system is, however, adopted here as elsewhere. They naturally seek out the richer patches of ore which can be worked with a profit in the reverberatory furnaces, the poorer ore being left in the ends and sides of the stope, and filled up. In the future, when this district is within a reasonable distance of a railway, and more improved appliances for treatment of the ore, a large number of men will be employed with profitable results.

We may also look for some good return from the Girilambone District when the new concentrating plant (May Bros.) now in course of erection is completed.

There has been considerable activity shown during the year in developing the mine, and erecting machinery for the more economical treatment of the ore.

There is the same solid work being done in the Mitchell's Creek Mine as in previous years. This is one of the best opened-up mines in the colony, the only drawback being the hauling shafts, which are too small for the work required.

At Sunny Corner, Burnt Yards, Rockley, Cargo, Canowindra, and Mt. M'Donald, a considerable improvement of a permanent character has taken place, and in some of these places most extensive plants have been erected for the treatment of ore, which will materially add to the returns from these districts in the future.

Taking the Western District generally, there would have been a decided improvement in the mining industry, only for the severe drought that prevailed for a great portion of the year preventing alluvial miners from washing up, and the stoppage altogether of most of the sluicing claims.

On

On all mines where steam boilers are in use I have been particularly careful in seeing that the boilers have been subjected to hydraulic tests at least once in six months, such tests entered in a book kept on the mine, showing the date on which the test was made, the pressure to which the boiler was subjected, also the working pressure, and any faults that may have been noticed while under test. These entries are duly signed by the engineer and a witness, for the information of the visiting inspector.

During the year I have inquired into the cause of four fatal accidents:—

- 1st. At the Caloola Gold-mine, by a fall of earth in an excavation for a machinery site, the bank only being some 3 ft. 6 in. in height.
- 2nd. Two men killed by a boiler explosion on a sluicing claim, Campbell's River, caused by a want of water in the boiler, and the crown coming down and cold water suddenly fed into the boiler.
- 3rd. In the Star of Peace Mine, Hill End, by a stone falling down a pass.
- 4th. By a collapse of timber in an alluvial mine on the Macquarie River, owing to the leading set not being securely dogged.

In each case a verdict of accidental death was returned by the Coroner's jury.

All of these accidents were preventable, but are such as no inspector can prevent unless the men themselves assist by taking ordinary precautions for their own safety.

I have, &c.,

DAVID MILNE,
Inspector of Mines.

The Chief Inspector of Mines, Department of Mines, Sydney.

Inspector Hebbard's Annual Report for 1897.

Sir,

Broken Hill, 12 January, 1898.

I have the honor to present my Annual Report for the year 1897 as follows:—

The prosperity of the mining industry, indicated in my Annual Report for 1896, as resulting from the increased demand for the sulphide ores of the district, has been continued. The demand for the products of concentration has increased, and to meet this demand large additions have been made to the existing concentrating plants.

An entirely new plant, of 5,000 tons weekly capacity, has been erected on the Broken Hill Proprietary Mine; and new plants of large capacity are now in course of construction on the Junction and Junction North Mines.

As a consequence of the increased output of ore, the number of men employed has largely increased, the highest number recorded for the year being 6,473. These figures apply only to Broken Hill and its immediate neighbourhood at 1 August, 1897.

The prosperity of the industry as a whole has, however, received two severe checks—first, by the creep affecting the Junction and Junction North Mines, which occurred on the 16th April, 1897; and second, by the fire which broke out in Block 12 of the Broken Hill Proprietary Mine on the 12th September, 1897.

Regarding the first of these causes, the absolute necessity (if only on economical grounds) of filling up depleted stopes with mullock is now universally recognised.

The arrangements for the carrying out of this work in some of the mines has involved a large expenditure of both time and money, and though in this instance (Junction and Junction North) arrangements were in progress for the systematic filling of the stopes by a series of mullock passes from the surface to the 600 feet level, the work was not sufficiently advanced, and this cause, with perhaps a little too much eagerness to take out the ore, led to the creep.

However, it should, in justice to the management, be pointed out that the hanging wall of this place is of such a nature, and in such a position, that no timber would sustain it.

The immediate effect of the creep was to throw about 360 men out of employment, and almost completely stopped the production of ore.

At this date the mine is again producing ore in fairly large quantity and employing the usual number of men.

The second cause acting as a check on the prosperity was the Block 12 fire.

In the effort to locate its site, three men named William Knee, John Hude, and John William Mulcaster were suffocated in the fumes and smoke generated by the burning timber. Fortunately, within a few hours of its discovery, the efforts of those dealing with the fire were so successful in locating it that its spread was effectually checked—a work of very great danger and difficulty, considering that the perfect labyrinth formed by the workings of these mines was filled with smoke and gas from the fire.

There is no doubt that the self-sacrificing bravery of the men engaged in fighting the fire, and the officers of the Company who led them, by preventing its spread, averted what would have amounted to a national disaster, and preserved the livelihood of thousands of persons. Too much praise cannot be accorded to the officers and men, as they had to work amid great danger of suffocation from gas, and crushing timbers, &c.

In the early stages of the fire nothing at all could be accomplished without accepting extraordinary risk.

Every possible precaution was taken, but, notwithstanding, men were being constantly brought to the surface badly affected with gas and smoke, where they were attended to by the doctors in a temporary hospital hastily fixed up for the purpose.

The

The fire continues to burn, although, apparently, there is no actual flame; and the method adopted to quench the last remains of it is to put in a drive and crosscut over the affected portion, and allow water to percolate through the mullock in the hope of its reaching the smouldering timbers.

The fire had the effect of throwing about 1,000 men out of employment; but having been got under complete control, the bulk of these men have again been absorbed.

The disastrous consequences of fires in mines containing so much timber (as is necessary in any mine timbered on the square set system), has led managers to seriously consider the question of the advisability of continuing the system in its entirety. Numerous attempts have been made to modify it, with a view to minimising the risk of fire occurring, and in the case of partly worked out ground, to presenting to a possible fire sections of mullocked-up stopes containing no timber, and thus effectually preventing its spread. (In Block 12 fire, there seems no doubt that the fire has been gradually eating its way along the timber of the square sets, though entirely surrounded by mullock filling, and it is this fact apparently that up to the present time prevented the complete extinguishing of the fire.)

One of the many plans for the accomplishing of this object is a reversion to a very old plan. This is the drawing of the timbers after the depleted portions have been filled, and the timbers have served the purpose of temporarily securing the back and side of the stopes.

Another plan is to work the ore on a sloping face, using the mullock, which is at regular intervals put in, as a base of operations, and temporarily securing any weak portions with props, &c.

In very hard ground the ore is taken out to a sufficient height to allow of the level timbers and covering being put in, and then the stoping is done from the field in mullock as a base, all passes being reared through the mullock at regular intervals; meantime, pending the building of the level, the back or roof is secured by bulkhead or pig-stye stacks.

This plan also is a reversion to an old system.

In all these cases a permanent level is found with strong timber, especially strengthened with angle or mitre sets within the main timbers.

So far these plans have worked well, especially where the ore was of a very hard nature; and I am of opinion that one or other of these plans, with perhaps some modification to fit certain circumstances, will soon be adopted throughout the mines.

Boilers of all classes, there are now 104 in the district, aggregating 5,400 h.p., and supplying steam to engines totalling 3,600 h.p. These include the following types:—Cornish, Lancashire, Water Tube, Multitubular, Locomotive, and Vertical boilers.

The provisions for testing them under hydraulic pressure, as prescribed by the "Regulations for the Inspection and Regulations of Mines other than Coal and Shale Mines," have been carried into effect, every boiler having been tested within the six months' limit, providing it has been under steam.

In addition to the requirements of the Regulations, at every period of testing, an examination of the boiler is made, and necessary repairs effected. The boiler is then tested under hydraulic pressure at least one-third above the ordinary working pressure, and the safety valve set to blow off at that pressure.

A record of every test, signed by two witnesses, is kept on the mine, together with a note as to the repairs effected if necessary, and the general conditions of the boiler.

A monthly report of these tests is now being furnished by me.

Open Cuts.—The open-cut system is still in operation on the Broken Hill Proprietary Mine, and to a small extent on the Block 14 and Central Mines, but in the two last-named, only for the purpose of supplying mullock for the underground filling.

The quantity of material taken out of these open cuts during the year amounts to about half a million cubic yards.

The open cuts are being extended in depth, but the permanent batter is kept at a safe angle. A very large proportion of the waste material of the cuts is being sent as filling direct underground, as in the Broken Hill Proprietary Mine; and other mines, as Block 10 and Central, have made large contracts with the Proprietary Mine for supplies of mullock from their clumps for the same purpose.

The great bulk of the material is now raised from the cuts by means of inclined tram lines and waggons, these having almost entirely superseded the flying-fox and cranes.

At Tarrawingee the number of hands employed has been greatly reduced, owing to the gradual shutting-down of the local furnaces, and possibly in the near future the demand for flux will cease altogether, resulting in the stoppage of the quarries.

During the year 67,590 tons of flux have been raised, besides a large quantity of waste material.

Accidents.—The accidents for the year reported on by me number 62, including 16 fatal, 25 serious, and 21 minor accidents.

There have also been numerous casualties reported to me, which I have not thought of sufficient importance to call for further report.

The accidents recorded are the results of a great variety of causes; but it is a significant fact that only ten should be the results of falls of ground, showing that in operations of such magnitude great care is exercised in timbering and otherwise securing the grounds.

The bulk of the remainder of the accidents were of such a nature that no human foresight could have prevented them.

Numbers of men and work accomplished.—The highest number of men employed during the year is 6,473; and though this number, from causes before explained, has been reduced quite recently to 5,466, I have every reason to believe that, notwithstanding the cessation of smelting operations, the highest number recorded for 1897 will be exceeded in 1898. As instancing the amount of work accomplished by these men as a set-off against the accidents, the following figures (compiled from data furnished by the various companies) will be of interest:—

Ore extracted	...	...	...	...	...	...	1,165,234 tons.
Cubic yards filling put into depleted stopes	...	...	...	...	...	...	350,004
Lineal feet of work in way of cross-cuts, drives, winzes, rises, and shafts	...	...	...	...	...	...	20,670
Material moved from open cuts	...	...	...	...	...	...	500,000 cub. yds.

To accomplish this work has involved the use of 340,656 lb. of high explosive (including dynamite, gelegnite, gelatine, rack-a-rock, and roburite) and 343,275 detonators; besides these, 60,000 lb. of blasting powder have been used. The value of this lot of blasting material is given as £27,317.

The number of detonators used indicate pretty nearly the number of explosions required in breaking the grounds, the average per day being about 1,000; and a very limited number of injuries to workmen arising from explosives is significant of the general care exercised in handling explosive substances.

As respecting the progress of the industry, new machinery to the value of £111,192 has been erected on the mines, making the total value of machinery and plant in the district £546,351.

16,141,189 superficial feet of timber has been used in securing the main workings, and 350,000 cubic yards of mullock filling put into depleted stopes for their future security.

The total gross value of the output of the district is £3,620,611, based on the market value of the silver and lead contents, exclusive of zinc, which is not yet fully established as a marketable product.

However, about 30,000 tons of zinc-containing material, chiefly tailings, formerly regarded as worthless, has been sold from the various mines during the year, and there seems reasonable grounds for hoping that large quantities will be shipped during 1898, as a fair price was realised for that already sold.

Lead-poisoning.—With regard to the lead-poisoning regulations, I find that the majority of the managers are very willing to do all that is possible, in compliance with them, and that, on the whole, there is a desire to comply with the spirit of the regulations, having for their object the health and well-being of the men employed.

The principal difficulty apparent now is the scarcity of water at some of the mines.

I find that this is more generally caused by want of pressure in the mains, than by any disinclination on the part of the companies to supply the water.

During the year only 17 cases of lead-poisoning have been reported to me, as against 44 for the year 1896. Of these, 8 are uncertified and 9 certified.

This falling off is, I think, more largely to be attributed to the lesser quantity of carbonate ore extracted than to any other cause.

The rigid enforcing of clause 2 of this Act has brought under my notice several cases of hardship, where lads under the age of 16 have been the support of families. I may be allowed to express the opinion that, under the circumstances, viz. :—

- (1.) The decreased number of cases of lead-poisoning;
- (2.) That all the boy labour is absorbed in concentration works, blacksmith, fitting, and carpenters' shops;
- (3.) That the great bulk of the ore now being handled is sulphide;—

that there is now very little, if any, danger of the boys being lead-poisoned, and that, therefore, the rule might with very good reason be relaxed somewhat.

The whole of my time during the year has been occupied in the immediate vicinity, including visits to The Pinnacles, Balaclava, Rockwell, Angas, Thackaringa, Silvertown, Yuba, Pernamoota, Maybell, and Tarravungee.

In July, I attended all the sittings of the Royal Commission on Mining Accidents in the district, and accompanied the Commissioner, His Honor Judge Murray, in visits of inspection and investigation to the various mines of the district.

I also gave evidence before the Commission, as Inspector of Mines, general conditions of mines, and prospects of the industry generally.

The systematic filling of depleted stopes in the mines has added much to the stability and safety of the mines, and enabled portions of the lode to be worked, chiefly consisting of pillars formerly left standing as too poor to pay for the cost of treatment in the early days, which, in my opinion, could not now be worked at all if the mines had now to depend in the square-set system.

In fact, so firm is now the conviction as to the security obtained by the thorough filling of the stopes, that in many instances the square-set system is regarded as a temporary expedient pending the complete securing of the stopes by the mullock filling, and the adoption of this system has minimised the effect of creeps, as predicted in my report of last year's operations.

The prospects of a continuance of the prosperity of the mining industry are excellent, the payable ores when prospected for have been found to continue in depth, as instance the 700 feet level, Kelly's shaft, block 10; the 700 feet level at main shaft of Broken Hill South Mine; the deeper levels at M'Bryde's and other shafts at the Broken Hill Proprietary Mine; and the developments in the deep levels of the Junction, Junction North, and Broken Hill North mines.

The increasing efforts at improvement in concentrating machinery, put forth by the concentrating engineers, have also borne fruit, and the result is that gradually poorer ores are being brought within the limit of profitable treatment, thus largely increasing the quantity of payable ore in sight, until, notwithstanding the quantity extracted from the mines during the year, it may safely be said that the quantity of payable ore in the mine is larger than ever before in their history.

With immediate prospects of the zinc contents of the ore in the mines, also returning its share of the profits, the outlook can only be regarded as brilliant.

I have, &c.,

JAMES HEBBARD,
Inspector of Mines.

The Chief Inspector of Mines, Department of Mines, Sydney.

Inspector

Inspector Godfrey's Annual Report.

The Chief Inspector of Mines, Sydney,—
Sir,

Sydney, 1 January, 1898.

I have the honor to forward you my annual report for the year 1897.

The localities visited by me during the year are as follow :—

Northern District—Bingara, Bullahdelah, Copeland, Coolongolook, Crow Mountain, Hillgrove, Ironbarks (Wood's Reef), Moonanbrook, Paddy's Creek, Rawdon Vale, Stewart's Brook, Upper Gloucester, and Whispering Gully.

Western District—Cobar, Carlisle, Diejou, Eugowra, Forbes, Fifield and Platina, Gilgunnia, Girilambone, Gulgong and Cudgebegong, Mount Allen, Mount Drysdale, Mount Hope, Mount Boppy, Myall, Mudgee and its localities, Nymagee, Overflow, Peak Hill, Parkes, Pinnacles, Restdown, and the Rookery, Tomingley, and Windeyer.

South-western—Barmedman, Billy's Lookout, Buddigower, Grenfell (twice), Temora, Scrub Yards, Springdale, Wyalong (where I was constantly engaged for two months), and Yalgogrin.

Southern—Adelong, Braidwood, Bungonia, Corang, Gundagai, Jerralong, Nerriga, Quartzville, and Snowball.

During the year I inspected and reported upon 404 mines, including a considerable number for aid from the Prospecting Vote.

I served upwards of forty written notices, where such an action was rendered advisable by the defects in the mines.

I travelled upwards of 8,700 miles, made up as follows :—4,814 by train, and the remainder by vehicle and horse.

I was present at two inquests on accidents in mines during the year; these were—Albert Goodwin, who was killed in the Eleanora Mine, Hillgrove, owing to a skid board falling down the shaft; and Robert Morley, who was injured and subsequently died from falling down a shaft at the Patron Mine, Wyalong, owing to the hook of the whip rope on which he was riding becoming detached from the harness. Both these accidents should have been prevented.

The mining industry in the districts through which I have travelled shows a decided advance, both in the permanency of the work done, and in matters of safety, while there seems also to be more regard given to the future development of the mines.

The Wyalong field, since my last inspection, shows a marked improvement in the class of mining done. All the larger mines are constructing main working shafts, putting in permanent levels, and erecting winding plants. The following mines now have small winding plants capable of working to at least 500 feet in depth, *i.e.*, the Perseverance, the Junction, the True Blue, Neild's Prospecting, Bolte's Lucknow, the Curragong, and the Prince of Wales; the latter being a large and powerful engine. While the Rose and Shamrock has a small plant fit to work to 250 feet in depth.

The output of the field has maintained its previous promise, but owing to the refractory nature of the ore at deeper levels, the stone has, as a rule, to be subjected to special treatment which has caused a number of plants to be erected on the field.

The principal of these are—Cox's Huntingdon Mill, West's Battery, with Cottle's patent concentrators, Gough's battery and shaking tables, Channon's cyanide plant, Nicholas and Raymond's battery, vanners, and grinding and amalgamating pans. The Wyalong Chlorination Works, which have a large chlorination and cyanide plant, with revolving, drying, and roasting furnaces; and they have just erected a Krupp Ball Mill for dry crushing, which, so far, has given every satisfaction, both for speed and economy.

Messrs. Neild have a well-arranged and compact chlorination plant. At present they use rolls for crushing, but intend to erect a Krupp Ball Mill. Roasting is done in an inclined reverberatory hearth, and precipitation is effected by means of ferrous sulphate.

Up to a few months ago the bulk of the refractory ore was bagged up, and sent away for treatment; but since the above plants have been erected a considerable proportion of the ore is locally treated, and provided that reasonable and equitable charges are made, there is no reason why the local plants should not treat the whole of the stone.

Although the system of timbering and working at Wyalong has advanced, there is still room for considerable improvement in many of the mines.

At Adelong, the Gibraltar Consolidated Mine is being worked on a large scale, and has been very elaborately equipped since my last inspection.

The system of treatment includes crushing, concentration, chlorination, and cyanidation.

Crushing.—Is done by 30 head of stampers, each 10-head being driven independently. The stone is brought to the battery by a truck road which connects with ore bins corresponding to the several shafts (and which are filled from the shafts by inclined tram lines), the stone passes over grizzlies through rock-breakers, and is then fed automatically to the stampers by challenge ore-feeders.

The battery can be driven either by steam or water-power—the latter being only occasionally available when there is sufficient water to drive the turbines in the compressor sheds.

Concentration.—Is done upon frue vanners, of which there are twelve—ten of them being the 6-foot, and two of them 4-foot vanners.

Chlorination.—The concentrates thus obtained are subjected to chlorination.

The roasting furnace is known as Edwards' Patent, and consists of a rectangular iron frame about 55 feet long and 6 feet wide, lined with firebrick and swung on central pivots, so that it can be inclined at any angle. Rabbling is done by circular rabbles driven off a longitudinal counter-shaft by bevel wheels—every pair of rabbles revolve in opposite directions, and there are five pairs in all. There is an automatic feed and discharge.

The chlorination vats are small, with india-rubber luting, which enables them to use the gas under pressure, if necessary. Precipitation of the gold is done on charcoal.

Cyanide.—The tailings after concentration are subjected to cyanidation, which is done by the Siemens-Halské process, in which precipitation of the gold is effected on thin lead sheets by electrolysis. It is claimed for this process that weaker solutions can be used, and poorer ore treated profitably, than by other means.

The company has also a large air compressor shed containing also the two turbines mentioned above. The ventilation in the mines generally may be described as excellent, and all the larger mines have made provision for carrying down air as new levels and stopes are opened up.

The condition of shafts is as a rule good, miners being alive to the fact that the main shafts are the means of communication with the surface; one or two shafts, however, were found to be in a very bad condition.

I found that some of the indicators on the winding engines were very inaccurate owing to faulty construction; very few winding engines, even of modern design, have proper indicators attached. As a rule it is necessary to put a spindle in the end of the drum shaft and use sliding weights as indicators. In all winding engines with loose drums, the indicator should be designed to work direct off the drums themselves, so that in changing levels there should be no need to alter them.

Another bad practice—with loose-eccentric winding engines, especially—is to have the brake on the fly-wheel and none on the drums; or, if there are brakes on the drums, the levers for controlling them are placed in some position out of reach of the driver, unless he leave his engine.

Having the brake on the fly-wheel is defective for two reasons; firstly, because, if one of the drums slipped out of gear (owing, for instance, to the clutch slipping or breaking) the brake would be useless; and, secondly, because in the event of the engine getting a run on it and the cages getting away, the sudden application of the brake on the periphery of the fly-wheel would throw an enormous torsional strain on the shaft, and tend to break it.

When a brake is used on the fly-wheel, there should be brakes on each of the drums, and the levers of these placed close to the driver so as to be at once under control, should the necessity for using them arise.

The testing of boilers by hydraulic test is usually done as a matter of course. A few years ago considerable pressure had to be used to get mine-owners to comply with this rule, but they have gradually come to do it themselves at the half-yearly overhaul.

Records are kept showing date of test, pressure to which boiler was subjected, defects observable, &c.; and usually in large boilers an internal examination is also made. The above record is signed, witnessed, and counter-signed by the visiting inspector.

Many boilers are sent out with safety-valves attached which were made for some other boiler; the weights attached to the levers being so light as to load the valve down to about one-half the pressure to which the boiler could work with safety.

In one case the valve was so faulty in construction as to blow off at 15 lb. per square inch where the boiler was capable of working to 45 lb. In such cases it is absolutely necessary to load the valves, but this is usually done with pieces of angle-iron, old rails, hammer-heads, &c., put on anyhow, and anywhere, and without the men in charge knowing to what pressure they are loading the valve, except by the pressure gauge, which is often inaccurate. I therefore endeavoured to get them to put proper weights on, properly adjusted, for the pressure under which the boiler has to work (being, of course, below its safe working pressure), and so that the weights cannot be shifted at the caprice of any irresponsible person.

Wyalong, as already mentioned, shows a great improvement in the class of timbering done in the levels and stopes, it being better fitted, better put in, and stronger than it used to be.

A corresponding improvement is noticeable in other new fields, while the older ones are as a rule working with due regard to safety, as shown by the fact that nearly all the serious accidents for the year were due to causes other than any defects in the system adopted; and I think that this improvement is a proof that systematic inspection tends to keep the mine-owners up to the mark.

I have, &c.,

J. R. GODFREY,

Inspector of Mines.

The Chief Inspector of Mines, Department of Mines, Sydney.

Inspector Hooke's Annual Report.

Sir,

Sydney, 1 January, 1898.

I have the honor to submit my annual report on the working of the Regulations for the Inspection and Regulation of Mines other than Coal and Shale Mines in such districts as I have visited during 1897.

During the year I have visited the following localities, viz.:—Adelong, Armidale, Bago, Billapalula, Brungle, Barmedman, Bygalorie, Bringenbrong, Burrowa, Breakfast Creek, Coolongolook, Coolac, Combaning, Chandler River, Carabost, Cullinga, Craiglea, Demondrille, Dungog, Garangula, Gundagai, Gundaroo, Gooda Creek, Hillgrove, Harden, Humula, Junee Reefs, Moonan Brook, Murrumburrah, McMahon's Reef, Muttama, Metz, Melrose, Nanima, Nottingham Hill, Niangala, Nundle, Reefton, Rockvale, Rye Park, Stewart's Brook, Springdale, Stockinbingal, Sherwood, Sunnyside, Swamp Oak, Tumut, Toomoorooma, Temora, Tumberumba, Tia, Uralla, Ungarie, Wyalong, Walcha, Wee Jasper, Yass.

The total number of mines inspected was 344, of which some were in connection with the Prospecting Vote from which aid was being sought. The distance travelled amounted to 7,018 miles.

During the year, two inquests were attended by me; in each case, after close inquiry, the verdict of the coroner was "Accidental death, no blame attaching to any person."

Of these, one occurred in the Gundagai District, and was caused by the breaking of a winding-rope and the failure of the safety catches on the cage to operate. In this instance, the mine manager, himself, was killed; he was alone and, in contravention of the Regulations, was ascending in a loaded cage. This, I believe, was the only cage accident, through breakage of rope, recorded during the year; and

and although the use of safety appliances on cages is not compulsory in this Colony, yet in this instance the cage was so fitted, but, unfortunately, proved inefficient. This incident, however, indicates the usual absence, in this Colony, of accidents from this cause, which good result is due to the close examination of winding-ropes and attachments to which they are subjected by inspectors, who immediately cause to be thrown out of use any gear unduly worn or showing defects.

The other fatality happened at Hillgrove, and was occasioned by a fall of stone. It occurred in a mine under able management, but in accidents from this cause the safety of the miner, in a great measure, depends upon himself, and I am continually inculcating the need of frequent examination of working places by means of "sounding," &c., by the miners themselves.

No accident came under my notice during the year which occurred from any unusual cause, and of those (11 in number) recorded from the districts north of Sydney, 7 were from falls of stone or other material, mostly from stopes and other working places in which the injured person was working, and which accidents in several cases might have been averted by the exercise of more care. From the cause mentioned, 4 were killed and 3 injured.

Amongst other causes, 1 man was injured by falling down a shaft, 2 were injured by explosions, and 1 was killed through becoming entangled in machinery he was attending.

The general condition of the mines may be regarded as safe; the shafts, however, in several of our larger and older mines are not by any means in as satisfactory a condition as they might be, and although safe enough for working, they are only so through frequent examination and repairs, and hence are a continual source of anxiety to all concerned.

The travelling roads underground are generally well kept and in good order, and but little fault can be found in this respect.

In regard to removal of ore, stull stoping is generally resorted to, and as the filling of depleted stopes is insisted upon, the two combined render the workings very secure, and thus always permit of the deeper ground being opened without undue risk, even after long intervals of idleness.

The handling and use of explosives are not such fruitful sources of complaint as hitherto. This is due, to a great extent, to the better understanding of the risks to be guarded against by the miner, and although accidents do occur, they are now infrequent. Special storage of explosives is always insisted upon, and the larger mines are equipped with magazines of approved design, carefully attended, while for underground use suitable boxes are provided.

In regard to ventilation much improvement has been effected, mainly by causing the connection of various surface outlets, thus securing an adequate supply of air by natural means. In so far as the deeper mines are concerned, however, the absence of system is very apparent in regard to providing adequate and controllable ventilation, and it seems desirable that regulation should enforce the existence of two shafts or a series of winzes for this purpose. This would materially aid the operation of managers, who succeeding each other on any particular mine would then feel it incumbent to continue their predecessor's work towards this end, without re-arranging and repeating such work.

The machinery connected with the winding and pumping may be regarded as in good order, although much of it is of antiquated type, still insufficient attention is given this subject, and many of the plants are an eyesore so far as cleanliness, &c., is concerned. This is due to lack of ability on the part of attendants, and as no certificate of competency is required of engine-drivers by regulation, the removal of a proved incapable attendant is as often followed by the replacement of another. This defect has thrown considerable responsibility upon the inspectors in regard to the care of steam boilers, especially in the case of those mines in remote parts receiving but an occasional visit. The practice of the inspectors generally has always been to have a duly witnessed cleansing, examination, and hydrostatic test every six months, a signed record of which is entered in a book, stating particulars and defects in boiler, if any. A strict insistence upon such requirements has materially assisted in the prevention of accidents.

In regard to mine management there is a decided improvement, and it is a pleasing duty to record that as a rule managers do all in their power to obviate accidents, and in no instance have they declined to accept my suggestion for the further protection of their men. That the provisions of the Regulations are complied with is shown by the fact that managers' omissions in this respect have been so promptly made good, that no prosecutions have been deemed necessary.

In reviewing my work of the year, the district traversed has been practically the length of the Colony, hence my remarks in general will only apply to the northern portion which was twice visited by me.

The principal metalliferous mining centre in the Northern District is still at Hillgrove, the output of gold from which, during the year, approximates 32,000 oz.; this, however, is less than that of the preceding year, but is to some extent due to shortness of water supply during portion of the time. Other causes have also operated to lessen the output, notably the falling off in the yields of the Eleanora Mine, which at time of writing has partially suspended work underground; and also of the Sunlight, the output of stone from which being temporarily reduced.

Amongst the mines the Baker's Creek still holds the leading position, both in depth and otherwise, the deepest workings in which being about 900 feet below the Adit level. In the West Sunlight the deepest workings are at 800 feet, at which depth the developments have been very satisfactory. In both of these mines development work is kept well forward, thus enabling their batteries to be continually running, to which in a great measure their success is due.

In regard to other mines on this field, development work has been somewhat retarded, with consequent diminution of output of stone. This, however, is being speedily rectified, and they, in common with such new properties as the Hillgrove Proprietary and Cooney Creek Proprietary, will take their stand during the ensuing year as large producers, and as these latter properties possess the essentials of dividend paying concerns, it may be fairly asserted that the future of the field is not likely to be retrogressive for some time, and that the dull condition noticeable at the close of the year is only transient.

As indicating the activity generally displayed, it may be of interest to state that 160 stamps were falling during the year; some of these, however, are now idle.

In regard to battery practice upon this field, nothing new has been put into vogue during the time under review. An endeavour to treat the tailings by the cyanide process was, however, tried, but so far with indifferent success owing to the presence of minerals and metals inimical to the process, but this doubtless will be overcome in time.

During

During the year also an alteration of the fuel for steaming purposes from wood to coal was tested with a view to ascertaining actual difference in cost, with the result that the use of wood was reverted to.

Sundry improvements in detail have, however, been carried out with success, both financially and otherwise, as most of the mines now have their own electric lighting plants, and in one instance an electric deposition plant for re-silvering copper plates for amalgamating purposes. One mine also is about to instal an electric winding plant for its sinking operations, which will be the first application of electricity to this purpose in this colony.

It is, however, singular that the advantages of hydraulic motive power have not yet been utilised on this field, as unusual facilities for same exist, with consequent cheapening of cost of gold production.

No other metal than gold has been mined during the year, the antimony deposits remaining untouched owing to the low price of that metal.

Apart from the prospecting, inseparable from the particular operations of each mine, very little of such work has been done, which is to be regretted, as ample scope exists for systematic work in this regard.

In other districts than Hillgrove, extensions of the gold-mining enterprises have made a decided advance. Owing mainly to the sale of various properties to English and other buyers, due to which cause at Tia, Rockvale, Swamp Oak, Niangala, Hanging Rock, Drake, Coramba, Stewart's Brook, &c., mines of admitted value, are now being developed with bright prospects for the ensuing year.

The application of improved processes to the treatment of the ores and tailings is receiving attention, and cyanide plants have been erected on various fields.

In the technical branch of mining also, the more recently formed companies who have mostly purchased properties prospected or worked out to shallow depths are devoting funds to the development of the deeper ground, in which respect important progress has been made towards pushing the industry beyond its infantile stage, and already improvements in the prospects of the mines are due to this fact.

Very little development has been made in regard to the mining of other metals than gold, mainly due to the low prices ruling for those metals, still prospecting in this direction has continued and with satisfactory results, so far as discovery is concerned.

I have, &c.,

HENRY HOOKE,
Inspector of Mines.

COAL AND OIL-SHALE MINES.

Report on the Inspection of Mines under the Coal Mines Regulation Act, in the Colony of New South Wales, for the year ending 31st December, 1897. By A. A. ATKINSON.

Sir,

Mines Department, Sydney, 31st January, 1898.

As required by section 21 of the Coal Mines Regulation Act, 1896, I have the honor to submit the following report of inspection, together with a detailed list of fatal and non-fatal accidents, and other tabulated statistical information relating to coal and shale mining generally.

The report is divided as follows:—

- Section I. Persons employed.
 „ II. Output and export of mineral.
 „ III. Accidents.
 „ IV. Prosecutions.
 „ V. General remarks.

The quantity of coal wrought during the year amounted to 4,383,591 tons, the quantities in each District being as follows, with the comparative figures for the year 1896:—

	1897.	1896.	Increase or Decrease.
	Tons.	Tons.	Tons.
Northern District	3,176,869	2,623,015	+ 553,854
Southern and South-Western Districts.....	918,862	1,008,376	— 89,514
Western District	287,860	278,124	+ 9,736
Totals.....	4,383,591	3,909,515	+ 474,076

The quantity of oil-shale wrought during the year amounted to 34,090 tons, the quantities in each District being as follows, with the comparative figures for the year 1896:—

	1897.	1896.	Increase or Decrease.
	Tons.	Tons.	Tons.
Northern District .....	.....	.....	.....
Southern and South-Western Districts.....	5,486	2,995	+ 2,491
Western District	28,604	28,844	— 240
Totals.....	34,090	31,839	+ 2,251

SECTION I.
PERSONS EMPLOYED.

TABLE showing the number of persons employed in and about mines (Coal and Shale) under the Coal Mines Regulation Act, divided according to ages and occupation below or above ground, and in the several districts as tabulated below:—

Districts.	Number of Mines.	Below ground.			Above ground.				Total number of persons employed below ground and above ground.
		Ages.			Ages.				
		Boys under 16.	Males above 16.	Total below ground.	Boys under 14.	Boys of 14 and under 16.	Males above 16.	Total above ground.	
Northern	60	188	5,737	5,925	1	109	1,194	1,304	7,229
Southern and South-western	17	85	1,723	1,808	...	32	497	529	2,337
Western	15	4	340	344	...	8	61	69	413
Totals, 1897	92	277	7,800	8,077	1	149	1,752	1,902	9,979
Totals, 1896	101	Not returned.		7,699	Not returned.			1,761	9,460

These figures are obtained from the statutory return made by the mine owners under section 27 of the Coal Mines Regulation Act, 1896.

SECTION

SECTION II.
OUTPUT OF MINERALS.

TABLE showing the output of minerals (Coal and Shale) from mines under the Coal Mines Regulation Act, 1896, in the Colony of New South Wales, during the year 1897:—

Quantity of Mineral raised.

District	Coal.	Oil-Shale	Shale used for other purposes	Total.	Value.
Northern	3,176,869	...	.....	3,176,869	£ 938,774 4 8
Southern and South-western	918,862	5,486	...	924,348	239,415 5 3
Western	287,860	28,604	.....	316,464	92,463 6 2
Totals, 1897	4,383,591	34,090	..	4,417,681	£1,270,652 16 1
Totals, 1896	3,909,515	31,839		3,941,354	£1,159,482 0 0

TABLE showing the Output of Minerals (Coal and Shale) per person employed in Mines under the Coal-mines Regulation Act, 1896, in the Colony of New South Wales during the year 1897:—

Quantity of Mineral raised per person employed.

Districts.	Below-ground.	Below and Above ground.
Northern	Statute tons. 536	Statute tons. 439
Southern and South-western	511	395
Western	919	766
	} 546	} 442

The corresponding figures for 1896 were 522 tons per person employed below-ground, and 427 tons per person employed above and below-ground, whilst for the United Kingdom the figures were 374 tons per person employed under-ground, and 301 tons per person employed under-ground and above-ground. This comparison is favourable to the Colony.

Showing Coal and Shale separately, we obtain the following figures:—

Quantity of Coal and Shale raised per person employed.

Districts	Below ground		Below and Above ground	
	Coal	Shale	Coal	Shale
Northern	Statute tons. 536	.....	Statute tons. 439	.....
Southern and South-western	508	66	393	58
Western	836	175	697	110

COMPARATIVE Statement of Returns for 1896-7.

	Men and boys above ground	Men and boys below ground	Tons of round and small coal		Value	
			tons	cwt. qr.	£	s. d.
NORTHERN DISTRICT.						
Australian Agricultural, Newcastle, Wallsend, Newcastle Coal, Lambton, Co operative, Brown's, Cardiff, Duckenfield, Waratah, Wickham and Bullock Island, Hetton, Burwood, Stockton, West Wallsend, New Lambton, Bloomfield, Thornley, Greta, New Anvil Creek, Rix's Creek, New Park, Rosedale, Dulwich, Centenary, Ebbw Vale, South Wallsend, East Greta, Morriset, Wallarah, Elemore Vale, Denton Para, Maryland, Hillside, Marshall's, Seaham, Pacific, Rose Hill, Kyuga, Lonsvale, Northumberland, South Hetton, Wright's, Bayley's Reward, Gunnedah, Oakvale, Side, Mawk's, Morris', Jenkins, Durham, Quarry, South Greta, Northern Extended... ..	1,304	5,925	3,176,869	0 0	938,774	4 8
Total in 1896	1,244	5,697	2,623,015	14 2	802,956	1 0
" 1897	1,304	5,925	3,176,869	0 0	938,774	4 8
Increase in 1897	60	228	553,854	0 0	135,818	3 8
Decrease ,, ... ..	.....	.....	.....	.....	.....	.....
SOUTH AND SOUTH-WESTERN DISTRICT						
Metropolitan, Bulli, Coal Cliff, South Bulli, Osborne-Wallsend, Mount Kembla, Australian Kerosene Oil and Mineral Co., Bellambi, Corrimal, Mount Pleasant, South Clifton, Hillend, Collins	529	1,808	918,862	0 0	232,557	15 3
Total in 1896	338	1,506	1,008,376	10 0	265,686	13 11
" 1897	529	1,808	918,862	0 0	232,557	15 3
Increase in 1897	191	302	.....	.....	.....	.....
Decrease ,, ... ..	.....	.....	89,514	0 0	33,128	18 8
WESTERN DISTRICT.						
Oakey Park, Vale, Zig Zag, Vale of Clywdd, Lithgow Valley, Eskbank, Eskbank Old Tunnel, Hermitage, Coerwull, Irondale, Cullen Bullen, Folly, Ivanhoe, Retort (N.S.W. Shale and Oil), Black Diamond	69	344	287,860	0 0	58,709	1 2
Total in 1896	63	335	278,124	8 0	56,638	1 8
" 1897	69	344	287,860	0 0	58,709	1 2
Increase in 1897	6	9	9,736	0 0	2,070	19 6

From these returns we find that in the Northern District, in the year under notice, there has been an increase of 288 persons employed in and about the collieries, and an increase of 553,854 tons of coal raised.

In the South and South-western Districts there has been an increase of 493 persons employed in and about the collieries, and a decrease of 89,514 tons of coal raised.

In the Western District there has been an increase of 15 persons employed in and about the collieries, and an increase of 9,736 tons of coal raised.

Years.	Exports to Intercolonial Ports.			Exports to Foreign Ports and United Kingdom and other British Possessions.			Total Exports.			Home consumption.
	Quantity.	Average per ton.	Value.	Quantity.	Average per ton.	Value.	Quantity.	Average per ton.	Value.	
	Tons.	£ s. d.	£	Tons.	£ s. d.	£	Tons.	£ s. d.	£	Tons.
1894	1,175,072	0 7 1-73	419,751	950,053	0 8 1-26	385,018	2,121,525	0 7 6-88	804,769	1,546,951
1895	1,196,504	0 6 9-69	407,271	969,726	0 7 6-75	366,653	2,166,230	0 7 1-74	773,954	1,572,359
1896	1,371,796	0 7 0-34	482,096	1,103,111	0 7 6-98	418,168	2,474,907	0 7 3-30	900,264	1,434,608
1897	1,498,992	0 6 11-49	521,462	1,197,631	0 7 2-20	430,592	2,696,623	0 7 0-73	952,054	1,686,968
	5,242,364	0 6 11-80	1,830,580	4,220,521	0 7 7-01	1,600,461	9,459,235	0 7 3-05	3,431,041	6,240,886

Years.	Total output and value.			Coal raised per each person employed in and about the mines.			Value of coal raised per each person employed in and about the mines.			Tons of coal raised per each life lost.		
	Quantity.	Average per ton.	Value.	Quantity.	Average tons per each person employed.	Persons employed.	Value.	Average value per each person employed.	Persons employed.	Quantity.	Average tons per each life lost.	Lives lost.
	Tons.	£ s. d.	£	Tons.	Tons.	Number.	£	£ s. d.	Number.	Tons.	Tons.	Number.
1894	3,672,076	0 6 3-55	1,155,573	3,672,076	402	9,126	1,155,573	126 12 5	9,126	3,672,076	524,582	7
1895	3,738,589	0 5 10-31	1,095,327	3,738,589	414	9,017	1,095,327	121 9 5	9,017	3,738,589	373,868	10
1896	3,909,517	0 5 9-08	1,125,280	3,909,517	423	9,233	1,125,280	121 17 6	9,233	3,909,517	162,896	24
1897	4,383,591	0 5 7-34	1,230,041	4,383,591	455	9,626	1,230,041	127 16 3	9,626	4,383,591	273,974	16
	15,703,773	0 5 10-39	4,606,221	15,703,773	424	37,002	4,606,221	124 9 8	37,002	15,703,773	275,504	57

PETROLEUM OIL CANNEL COAL OR BOGHEAD MINERAL RETURNS.

Western and Southern Districts.

Tons of boghead mineral or petroleum oil cannel coal	34,090 tons.
Value of boghead mineral or petroleum oil cannel coal raised	£40,611 15s.
Persons employed above ground	107
Persons employed under ground	246

COKE RETURN.

	Tons.	£	s.	d.
Northern District	21,012	Value, 45,391	18	0
Southern and Western Districts.....	43,190			

Total..... 64,202 tons at 14s. 1d. per ton.

The following table shows comparisons between the year under notice and the preceding year, as regards the proportion the accidents and deaths bear to the persons employed, and the quantity and value of the coal for each person employed in and about the mines and underground, in the Northern, Southern, and Western Districts.

	Northern District.		Southern and South-western Districts.		Western District.	
	1896.	1897.	1896.	1897.	1896.	1897.
Number of persons employed in and about the mines..	6,941	7,229	1,894	2,337	393	413
Number of persons employed underground	5,697	5,925	1,506	1,808	335	344
Quantity of coal raised in tons	2,623,015 14 2	3,176,869	1,008,376 10 0	918,862	278,124 8 0	287,860
Number of non-fatal accidents	38	55	17	4	7	1
Number of lives lost by accident	18	14	6	1	Nil	1
Persons employed per each non-fatal accident	182	131	111	584	56	413
Persons employed per each life lost	385	516	315	2,337	No life lost.	413
Tons of round and small coal raised per each non-fatal accident.	69,026	57,761	59,316	229,715	39,732	287,860
Tons of round and small coal raised per each life lost..	145,732	226,919	168,062	918,862	No life lost.	297,860
Tons of coal raised per each person employed in and about the mines.	377	439	532	395	698	766
Tons of coal raised per each person employed underground.	460	536	669	511	830	919
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Value of coal raised	802,956 1 0	938,774 4 8	265,686 13 11	232,557 15 3	56,638 1 8	58,709 1 2
Value of coal raised per each person employed in and about the mines.	115 13 7	129 17 2	140 5 6	99 10 2	142 6 1	142 3 0
Value of coal raised per each person employed underground.	140 8 10	150 0 1	176 8 4	128 12 6	168 18 4	170 13 6

DECENNIAL RETURN.—Port of Newcastle.—Foreign and Intercolonial Ports.

Year.	Vessels cleared outwards for Foreign and Intercolonial Ports.		Total value of Imports from Foreign and Intercolonial Ports.	Quantity and value of Coal exported to Foreign and Intercolonial Ports.		Total value of Exports (inclusive of Coal) to Foreign and Intercolonial Ports.	Total amount of Revenue collected.
	No. of Vessels.	Tonnage.		Tons.	Value.		
			£		£	£	£
1885	1,388	1,076,346	930,200	1,552,136	832,495	1,927,626	108,834 18 6
1886	1,335	1,097,382	843,474	1,544,694	828,189	1,398,728	119,131 15 0
1887	1,334	1,154,439	781,796	1,658,386	886,921	1,788,664	117,543 7 10
1888	949	815,516	758,586	1,580,337	852,083	2,067,460	126,036 7 9
1889	1,277	1,126,892	924,150	2,091,557	1,102,722	1,894,321	132,018 0 1
1890	916	842,180	816,694	1,628,038	875,197	1,768,379	124,782 14 10
1891	1,425	1,476,097	877,063	2,244,729	1,160,965	2,032,522	166,048 2 9
1892	1,307	1,381,318	765,083	1,894,735	879,482	1,846,953	191,394 12 10
1893	1,108	1,209,467	451,253	1,583,882	702,190	1,700,813	151,286 8 1
1894	1,255	1,415,159	427,581	1,891,674	710,341	1,485,475	158,895 12 11
1895	1,207	1,410,004	420,778	1,920,378	678,217	1,417,122	155,362 8 1
1896	1,180	1,479,033	611,872	2,070,304	729,444	1,496,687	123,280 15 3
1897	1,375	1,740,345	510,721	2,431,489	842,347	1,746,925	112,548 14 2

RETURN showing the quantity raised, price per ton, and value of the boghead mineral or petroleum oil (cannel coal), commonly called kerosene shale, from 1865 to 1897 inclusive.

Year.	Tons.	Average price per ton.	Value.	Year.	Tons.	Average price per ton.	Value.
		£ s. d.	£ s. d.			£ s. d.	£ s. d.
1865	570	4 2 5·47	2,350 0 0	1882	48,065	1 15 0·00	84,114 0 0
1866	2,770	2 18 10·48	8,154 0 0	1883	49,250	1 16 10·77	90,861 10 0
1867	4,079	3 14 9·21	15,249 0 0	1884	31,618	2 5 7·85	72,176 0 0
1868	16,952	2 17 7·11	48,816 0 0	1885	27,462	2 8 11·62	67,239 0 0
1869	7,500	2 10 0·00	18,750 0 0	1886	43,563	2 5 10·79	99,976 0 0
1870	8,580	3 4 3·18	27,570 0 0	1887	40,010	2 3 10·43	87,761 0 0
1871	14,700	2 6 3·91	34,050 0 0	1888	34,896	2 2 2·26	73,612 0 0
1872	11,040	2 11 11·91	28,700 0 0	1889	40,561	1 18 3·55	77,666 15 0
1873	17,850	2 16 6·55	50,475 0 0	1890	56,010	1 17 2·07	104,103 7 6
1874	12,100	2 5 1·48	27,300 0 0	1891	40,349	1 18 8·90	73,160 0 0
1875	6,197	2 10 2·22	15,500 0 0	1892	74,197	1 16 8·16	136,079 6 0
1876	15,998	3 0 0·00	47,994 0 0	1893	55,660	1 16 4·44	101,220 10 0
1877	18,963	2 9 0·82	46,524 10 0	1894	21,171	1 10 0·20	31,781 5 0
1878	24,371	2 6 11·49	57,211 0 0	1895	59,426	1 5 3·78	75,218 18 8
1879	32,519	2 1 10·96	66,930 10 0	1896	31,839	1 1 5·81	34,201 18 0
1880	19,201	2 6 7·03	44,724 15 0	1897	34,090	1 3 9·09	40,611 15 0
1881	27,894	1 9 2·59	40,748 0 0				

The following Statistical Return, furnished by the Sub-Collector of Customs of Newcastle, shows that the greatest increase in the export of coal from that port has been:—To South Australia, 75,514 tons; Western Australia, 53,111; Victoria, 38,106; Singapore, 39,869; New Zealand, 24,459; Chili, 32,084; Phillipine Islands, 24,016; Java, 17,780; India, 20,972; Hong Kong, 37,446. And the greatest decreases are:—To Peru, 15,994; Sandwich Islands, 9,189; and New Caledonia, 6,858.

NEWCASTLE.—New South Wales export of Coal during the years 1896 and 1897.

Countries.	1896.	1897.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.
Victoria	583,956	622,062	38,106	.....
New Zealand	127,883	152,342	24,459	.....
South Australia	229,595	305,109	75,514	.....
Queensland	26,083	28,315	2,232	.....
Tasmania	51,963	54,825	2,862	.....
Western Australia	118,476	171,587	53,111	.....
Hong Kong	29,735	67,181	37,446	.....
United States	234,655	240,281	5,626	.....
Java	36,404	54,184	17,780	.....
Ecuador	1,242	2,667	1,425	.....
New Caledonia	16,475	9,617	.....	6,858
Mauritius	7,909	5,864	.....	2,045
Fiji	3,240	8,833	5,593	.....
India	47,861	68,833	20,972	.....
Phillipine Islands	65,782	89,978	24,016	.....
Peru	42,381	26,387	.....	15,994
Chili	306,202	338,286	32,084	.....
Sandwich Islands	53,262	44,073	.....	9,189
Mexico	15,160	21,403	6,243	.....
South Sea Islands	1,510	.....	.....	1,510
Singapore	25,882	65,751	39,869	.....
United Kingdom	6,020	7,850	1,830	.....
New Hebrides	1,795	2,470	675	.....
Ceylon	5,900	3,600	.....	2,300
Panama	21,903	24,149	2,246	.....
Other Countries	9,030	16,022	6,992	.....
Total	2,070,304	2,431,489	399,081	37,896

NEWCASTLE.—Export of Coke for the year 1897.

Countries to which exported.	Quantity.	Value.
	Tons.	£
Victoria	2,227	2,796
New Zealand	393	514
New Caledonia	3	4
Western Australia	122	135
Peru		
South Australia	7,640	9,535
Mexico	7	8
Tasmania	20	30
United States	26	29
Java	10	13
Total	10,448	13,064

SECTION III.

ACCIDENTS.

The total number of accidents reported during the year 1897, including accidents on private branch railways, &c., was 76, the corresponding number for the previous year being 74. During 1897 there were 16 fatal accidents and 60 non-fatal, resulting in the deaths of 16 persons and injuries to 63 persons, the figures for the previous year being 24 deaths and 62 persons injured.

No accident has happened during the year which caused more than one death, and only three of the non-fatal accidents caused injury to more than one person.

SUMMARY of fatal and non-fatal accidents, classified according to place and cause.

Place and cause.	Fatal accidents.		Non-fatal accidents reported.	
	Number of separate fatal accidents.	Number of deaths.	Number of separate non-fatal accidents.	Number of persons injured, including those injured by accidents which proved fatal to their companions.
Explosions of fire-damp or coal dust				
Falls in mine :—				
Falls of side	7	7	28	29
Falls of roof	2	2	5	5
Total falls	9	9	33	34
In shafts :—				
Overwinding				
Ropes and chains breaking				
Whilst ascending or descending by machinery				
Falling into shaft from surface				
Things falling from surface				
Falling from part way down				
Things falling from part way down				
Miscellaneous	1	1	1	1
Total in shafts	1	1	1	1
Miscellaneous under-ground :—				
By explosives	1	1	4	6
Suffocation by natural gases				
Irruptions of water				
Falling into water				
On inclined and engine planes	1	1		
By trams and tubs	1	1	13	13
By machinery				
By under-ground fires				
Ropes and chains breaking				
Sundries	2	2	1	1
Total Miscellaneous under-ground	5	5	18	20
On surface				
By machinery			1	1
Boilers bursting				
On railways and tramways	1	1	4	4
Miscellaneous			3	3
Total on surface	1	1	8	8
Gross total	16	16	60	63

RETURN showing the number of fatal and non-fatal accidents in Coal and Shale mines; those caused by "falls of coal," stone "roof" and Lithgow, Ferndale, Bulli, A. A. Co.'s Hamilton Pit, South Burwood Sinking Pit, Metropolitan, and Stockton disasters, 1873 to 1896 inclusive.

Year.	Fatal accidents.	Remarks on fatal accidents.	Non fatal accidents.	Remarks on non-fatal accidents.	Men above and below ground.	Tons of coal raised.	Tons of coal raised per life lost.
1873	13	9 by falls of coal	10	4 by falls of coal, 1 by stone roof	*.....	1,192,862	91,758
1874	5	3 by falls of coal, 2 by stone roof	13	6 by falls of coal, 4 by stone roof	*.....	1,304,612	260,922
1875	8	4 by falls of coal, 3 by stone roof	10	6 by falls of coal	3,308	1,329,729	166,216
1876	4	2 by falls of coal, 1 by stone roof	8	4 by falls of coal	4,084	1,319,918	329,979
1877	7	4 by falls of coal, 1 by stone roof	21	16 by falls of coal	4,657	1,444,271	206,324
1878	8	2 by falls of coal, 1 by stone roof	15	12 by falls of coal, 1 by stone roof	4,792	1,575,497	196,937
1879	5	2 by falls of coal, 2 by stone roof	19	10 by falls of coal	5,035	1,583,381	316,676
1880	8	4 by falls of coal, 1 by stone roof	19	8 by falls of coal	4,676	1,466,180	183,272
1881	2	2 by falls of coal	33	25 by falls of coal	4,098	1,769,597	884,798
1882	12	10 by falls of coal	33	23 by falls of coal	4,487	2,109,282	175,773
1883	15	8 by falls of coal, 1 by stone roof	34	15 by falls of coal, 4 by stone roof	5,481	2,521,457	168,096
1884	14	6 by falls of coal, 2 by stone roof	34	14 by falls of coal, 6 by stone roof	6,227	2,749,109	196,364
1885	11	7 by falls of coal, 2 by stone roof	40	13 by falls of coal	7,097	2,878,863	261,714
1886	29	10 by falls of coal, 1 by stone roof, 8 by Lithgow disaster, 1 by Ferndale flooding.	43	15 by falls of coal, 2 by fall of roof	7,847	2,830,175	97,592
1887	94	81 killed by Bulli catastrophe, 5 by falls of coal, 2 by falls of stone roof.	45	22 by falls of coal, 5 by fall of stone roof.	7,998	2,922,497	31,090
1888	15	5 by falls of roof	43	12 by falls of coal, 4 by stone roof	9,301	3,203,443	213,562
1889	41	11 by crush at Hamilton Pit, 11 by falls of coal, 4 by over-winding at South Burwood.	57	24 by falls of coal	10,277	3,655,632	89,161
1890	13	4 by falls of coal, 1 by fall of roof	36	17 by falls of coal, 3 by stone roof	10,315	3,060,876	236,145
1891	21	7 by falls of coal, 3 by fall of roof	54	27 by falls of coal, 6 by stone roof	10,820	4,037,929	192,282
1892	8	4 by falls of coal, 3 by fall of roof	77	38 by falls of coal, 10 by stone roof	10,514	3,780,967	472,620
1893	13	10 by falls of coal, 1 by fall of stone	45	22 by falls of coal, 5 by fall of stone	9,971	3,278,327	252,179
1894	7	2 by falls of coal, 2 by fall of stone	40	28 by falls of coal, 1 by fall of stone	9,126	3,672,076	524,582
1895	10	5 by falls of coal, 3 by fall of stone	47	25 by falls of coal, 1 by fall of stone	9,017	3,738,589	373,858
1896	24	5 by falls of coal, 2 by fall of roof	62	28 by falls of coal, 4 by fall of roof	9,460	3,909,515	162,896
1897	16	7 by falls of coal, 2 by fall of roof	60	28 by falls of coal, 5 by fall of roof	9,979	4,383,591	273,974

* Figures not available.

LIST of Fatal Accidents.

Date of Accident, 1897.	Name of Mine.	Situation of Mine.	Name, Age, and Occupation of Person killed.	Cause of Accident and Remarks.
22 Jan.	Gunnedah Colliery.	Gunnedah	Bernard McCosker, miner; age, 21.	Fatal injuries whilst wedging at the coal face by fall of coal and stone from the roof; a shot had been fired, which failed to bring the coal down, and deceased proceeded to wedge it, with fatal results.
22 Mar.	South Waratah Colliery.	Charlestown, Newcastle.	Alfred Frederick Foster, miner; age, 36.	Fatal injuries by fall of coal from the face; deceased was holing, and had one sprag set, which was deemed sufficient; but the fall occurred from a slippery facing.
25 "	Co operative Colliery.	Plattsburg, Newcastle.	John A. Thomas, Wheeler; age, 17½.	Killed by being crushed between tubs and a prop; deceased was riding without a light, on the buffer of the first of three tubs he was bringing out of a heading on to the going or main bord; part of his body projected beyond the corner of the tub, and, in passing round a curve, it was crushed between the tub and some props fixed on the outside of the curve to secure the roof; died in Wallsend hospital on following day.
22 April	Wickham and Bullock Island	Carrington, Newcastle.	Thomas Coxon, miner; age, 44.	Killed by a fall of coal; block of "little tops" coal fell upon him as he was working down some bottom coal, for the purpose of freeing a wedge he required to wedge down the coal that fell upon him.
19 July	Stockton	Stockton, Newcastle.	Charles Hansen Stormm, miner; age, 29.	Killed by fall of coal; large block of coal fell away from a sooty facing, twisting out a sprag he had fixed to it.
2 "	Do	do	William Hughes, stoneman; age, 31	Crushed to death by a baulk falling upon him. This accident is fully described in the report.
18 Aug.	Waratah	Charlestown, Newcastle.	Michael Sheedy, miner; age, 40.	Fatal injuries by fall of roof in an 8-yard bord; the stone came from a feather edge on two sides, and terminated at a clearly defined facing near the working face.
13 Sept.	Osborne-Wallsend.	Wollongong	Charles Benjamin Drew, shunter.	He was severely crushed between the waggon buffers whilst engaged in coupling them, and died a few hours afterwards.
27 "	Hetton	Carrington, Newcastle.	Hezekiah Williams, miner; age, 51.	Fatally injured by fall of coal; died, October 4th. Deceased and his mate worked in a bord getting bottom coal; they had worked away the lower coal, 4½ feet thick, leaving the "little top coal," 20 inches thick, secured with a prop; on wedging down a block of the bottom coal, it rolled over, and knocked out the prop; deceased evidently considered it unnecessary to refix it, as he resumed his work in the bottom coal; a few minutes only elapsed when a large portion of the "little tops" coal fell upon him, inflicting terrible injuries, from which he died.
29 "	Co operative Colliery.	Plattsburg, Newcastle.	Thomas McCroraly, miner; age, 68.	Killed by fall of coal. His son and mate had holed the "back end" coal, and had two sprags fixed under it; deceased took a pick and sounded it, saying it would not take much powder to bring it down; before he could step back a block of about 30 cwt. fell from between the wallside and one of the sprags, almost burying him; he died two hours afterwards.
11 Oct.	South Greta	Farley	Ernest Albert Moore, miner; age, 20.	Fatal injuries whilst riding on a train of loaded tubs (contrary to Special Rules), his head coming in contact with the roof.
15 "	Wallsend	Wallsend, Newcastle.	John Mawkes, Shiftman; age 51	Died on October 18th from injuries received. Mawkes and others were engaged in taking up the floor of one of the engine banks to reduce the gradient; a shot-hole was bored about 4 feet deep in hard post stone; a plug of compressed powder was put in this hole, and, whilst Mawkes was in the act of placing a second one with the rammer (which was copper), an explosion occurred, and he was severely burned on the face and chest, and his right hand and arm were shattered. It is difficult to say what caused this accident.
30 "	Stockton	Stockton, Newcastle.	David Williams, Wheeler; age, 20	Killed by kick from a horse. He was standing behind his horse, striking it with his whip; it lucked out, hitting him in the chest, killing him instantly.
11 Dec.	Newcastle Co.'s A Pit.	Newcastle	Wm. Thomas Skillings, miner; age, 21.	Killed by fall of coal in an 8-yard bord; seam, 6 ft. 7 in. thick. The coal was holed about 2 ft. 6 in deep; about 1 ton came away at a "grey back" or slip; there was one sprag in, 4 feet long, and plenty about.
14 "	Newcastle Co.'s B Pit.	do	William George, miner; age, 28.	Killed by fall of coal. The coal was spragged, and there was plenty of timber about; the coal knocked out a "soldier" or large sprag, which may also have struck deceased, who was said to be a very careful miner.
18 "	Vale of Clwydd Colliery.	Lithgow	Daniel Gendeis, on-setter or hooker; age, 22.	Deceased was caught by descending cage when crossing the shaft bottom, causing fracture of the skull.

The following tables show the districts in which the accidents occurred:—

FATAL ACCIDENTS.

Districts.	Fatal accidents.						Deaths.					
	Explosions of fire-damp and coal-dust.	Falls of roof and sides.	In shafts.	Miscellaneous under ground.	On the surface.	Total.	Explosions of fire-damp and coal-dust.	Falls of roof and sides.	In shafts.	Miscellaneous under ground.	On the surface.	Total.
Northern	9	...	5	...	14	...	9	...	5	...	14
Southern and South-western	1	1	...	...	...	...	1	1
Western	1	...	1	...	...	...	1	...	1
Totals, 1897	9	...	6	1	16	...	9	...	6	1	16
Totals, 1896	7	...	15	2	24	...	7	...	15	2	24

NON-FATAL ACCIDENTS.

Districts.	Non-fatal accidents.						Number of persons injured, including those injured in accidents fatal to other persons.					
	Explosions of fire-damp and coal-dust.	Falls of roof and sides.	In shafts.	Miscellaneous under ground.	On the surface.	Total.	Explosions of fire-damp and coal-dust.	Falls of roof and sides.	In shafts.	Miscellaneous under ground.	On the surface.	Total.
Northern.....	...	27	1	17	8	53	...	28	1	19	8	56
Southern and South-western	5	...	1	...	6	...	5	...	1	...	6
Western	1	...	...	...	1	...	1	...	...	...	1
Totals, 1897	33	1	18	8	60	...	34	1	20	8	63
Totals, 1896	33	...	27	2	62	...	33	...	27	2	62

LIST of Non-fatal Accidents.

Date of Accident, 1897.	Name of Mine.	Situation of Mine.	Name and Occupation of Person Injured.	Cause of Accident and Remarks.
12 Jan. ..	East Greta	West Maitland	Henry Atkinson, miner	Injury to foot by fall of coal.
20 " ..	Co-operative ..	Plattsburg, Newcastle....	Robert Drysdale, miner.....	Thigh broken by fall of coal; coal broke over the sprag, and almost buried him.
21 " ..	Duckenfield ..	Minmi, Newcastle	Alexander Dobbie, miner	Injury to face by shot. Returned to shot which had "hung fire," when it went off.
2 Feb. ..	Wickham and Bullock Island	Carrington, Newcastle ..	Hugh Riddle, miner.....	Collar-bone broken by fall of "Morgan" stone.
24 " ..	Wallsend Main Tunnel.	Wallsend, Newcastle ...	James Craig, miner.....	Fracture of left leg by fall of coal.
25 " ..	Newcastle Coal Co., A Pit.	Merewether, Newcastle ..	John Morgan, screenman.....	Injury to foot whilst riding on empty coal wagons.
2 Mar. ..	Duckenfield ..	Minmi, Newcastle	William Price, checkweigher...	Broken ribs, collar-bone, and bruised hip, by falling off screen platform on to railway below.
10 " ..	Newcastle Coal Co., A Pit.	Merewether, Newcastle ..	Aquilla Pipe, miner.....	Severe flesh wound, caused by a falling pick whilst descending the mine in the cage.
25 " ..	South Waratah.	Charlestown, Newcastle ..	James Wilson, shunter	Fracture of leg.
26 " ..	Hetton.....	Carrington, Newcastle ...	George Wile, driver.....	Horse stepped on a loose rail, which struck the boy's leg and broke it.
3 April ..	Wallsend.....	Wallsend, Newcastle ...	Evan Jenkins, driver.....	Fracture of collar-bone. Crushed between his horse and a tub.
29 " ..	Metropolitan ..	Helensburgh.....	David Ridley, miner	Arm broken by a fall of coal.
8 May ..	South Bulli....	Bellambi	Richard Gibson, dayman.....	Leg broken by a fall of stone.
18 " ..	Burwood	Newcastle	Joseph Moss, miner	Leg fractured by a fall of coal whilst holing.
18 " ..	Zig-zag.....	Lithgow	William Dyer, miner	Head hurt by a fall of coal.
19 " ..	Dudley.....	Newcastle	Daniel Kelly, miner.....	Coal struck him when drawing a sprag. Shock to system—no bones broken.
20 " ..	Co-operative ..	Plattsburg, Newcastle....	Wm. Paviour, driver.....	Injury to head by falling on a rail when shunting a wagon.
20 " ..	Stockton	Newcastle	Albert Burt, driver.....	Arm broken by tubs.
25 " ..	Stockton	Newcastle	Thomas Desmond, miner	Leg broken by a fall of coal.
28 " ..	Co-operative ..	Plattsburg, Newcastle....	Alexander Marchem, endless-clip boy.	Thigh broken by a runaway tub.
2 June ..	Newcastle Co., B pit.	Merewether, Newcastle ..	James Banks, wheeler.	Injury to both hips whilst attempting to jump into empty moving tub.
3 " ..	Dudley.....	Newcastle	John King, trapper.....	Flesh wound on leg by tubs when riding without a light.
15 " ..	Co-operative ..	Plattsburg, Newcastle....	Thomas Hepplewhite, miner....	Leg broken by piece of coal falling from face whilst filling coal.
15 " ..	South Bulli....	Bellambi	W. Metcalfe, clip boy	Arm broken by a skip.
16 " ..	Wallsend, No. 2 tunnel.	Wallsend, Newcastle	Anthony Bell, and Wm. Bell, miners.	Injured by fall of coal.
17 " ..	Burwood.....	Newcastle	J. Sutherland, miner	Injury to toes by fall of coal.

Date of Accident, 1897	Name of Mine.	Situation of Mine.	Name and Occupation of Person Injured	Cause of Accident and Remarks
23 June	Co operative	Plattsburg, Newcastle	Edward Coxon, miner	Severe injury to head by piece of coal from a shot which broke through the pillar between two bords
30 "	A A Co's, New Winning	Newcastle	Fred Brogen, engineman	Fracture of left arm by falling from a ladder on the surface
1 July	Burwood	Newcastle	Walter Grayson, screen boy	Left arm crushed in machinery, and had to be amputated
5 "	Co operative	Plattsburg, Newcastle	Christopher Goldie, shiftman	Eye destroyed by a piece of rust flying from a rail
13 "	Stockton	Stockton, Newcastle	Frederick Desmond, driver	Arm broken by kick from a horse
20 "	Wickham and Bullock Island	Carrington, Newcastle	Thomas Shakespere, miner	Collar bone broken by a fall of coal
20 "	East Greta	Maitland	James Ryan, miner	Severe injury to spine by fall of coal
23 "	Co operative	Plattsburg, Newcastle	Patrick White, endless rope boy	Injury to back and legs by being run over by tub
6 Aug	A A Cos, New Winning	Newcastle	Samuel Harris, miner	Severe powder burns on head, face and neck
9 "	Wickham and Bullock Island	Carrington, Newcastle	Thomas Screen, miner	Hand burnt by powder which exploded from a spark from the light on his cap
18 "	Duckenfield	Minmi, Newcastle	George Oliver, miner	Thigh broken by fall of coal
18 "	Seaham	West Wallsend, Newcastle	John Cotter, driver	Eye destroyed by iron sprag striking it, whilst attempting to use it from inside the tub, instead of from outside
19 "	Seaham	West Wallsend, Newcastle	John Parkes, driver	Leg broken by tub running over it
22 "	Wickham and Bullock Island	Carrington, Newcastle	Thomas Lock, shiftman	Thigh broken by fall of coal
23 "	Newcastle Coal Co, B Pit	Merewether, Newcastle	Thomas Gray, miner	Fall of coal causing fracture of ribs
2 "	Hetton	Carrington, Newcastle	Benjamin Lewis, miner	Injury to head and hand by fall of coal
31 "	Co operative	Plattsburg, Newcastle	Henry Outram, miner	Run over by tram of tubs when attempting to jump on whilst in motion. Leg had to be amputated
10 Sept	Lambton	Lambton, Newcastle	Francis Lloyd, miner	Fracture of ribs and injury to shoulder by fall of coal
21 "	Duckenfield	Minmi, Newcastle	Alexander Henderson	Two ribs broken by fall of stone from a slip
23 "	Co operative	Plattsburg, Newcastle	Herbert Hancock, endless rope clip boy	Head crushed and jawbone broken by being crushed between tubs. Coupling tubs whilst in motion
27 "	Wallsend (Main Tunnel)	Wallsend, Newcastle	Joseph Walker, wheeler	Severe bruises. Jambled between timbers and a loaded tub
27 "	A A Co (No 2 Pit)	Newcastle	George Parsons, miner	Fracture of arm by fall of coal
1 Oct	Wallarrah	Catherine Hill Bay, Newcastle	Thomas Poxon, wheeler	Thigh broken by being jambled between full and empty tubs at a junction
4 "	Stockton	Stockton, Newcastle	Joseph M'Alister, miner	Crushed about the loins by fall of coal whilst setting a sprag
6 "	Dudley	Newcastle	Thomas Williams, miner	Internal injuries by fall of coal
11 "	Mount Kembla	Kembla	G Whiteman, miner	Hurt about the back by fall of coal
13 "	Burwood	"	William Filmore, miner	Fall of coal, injuries slight
15 "	Osborne Walls end	Wollongong	Thomas Dimithy, miner	Leg broken by a fall of stone
15 "	Wallsend Main Tunnel	Wallsend, Newcastle	John Conn, shiftman	Injured by premature explosion of a shot
30 "	Osborne Walls end	Wollongong	Edward Row's, shiftman	Leg broken by fall of stone whilst setting a prop
1 Nov	Stockton	Stockton, Newcastle	David Lewis, miner	Head and eye seriously injured by fall of coal
15 "	Co operative	Plattsburg, Newcastle	John M Dermot, miner	Leg broken by fall of coal
3 Dec	Greta	Greta	John Stewart, loco engineman	Scalded on neck and shoulders by escape of steam and water, caused by fracture of bolt which secures the mud hole cover of the boiler
7 "	Maryland	Plattsburg, Newcastle	John Miller, miner	Leg broken by fall of coal
13 "	Wickham and Bullock Island	Carrington, Newcastle	Charles Broadhead, miner	" "
14 "	Stockton	Stockton, Newcastle	James Mitchell, miner	Two toes broken by a piece of coal falling upon his foot

The following table shows the death-rate from accidents for the Colony:—

DEATH-RATE from Accidents for the Colony.

Per 1,000 persons employed below ground	Per 1,000 persons employed above ground	Per 1,000 persons employed below and above ground
1.857	0.526	1.603

The following figures afford a comparison of the death-rate, &c, at mines under the Coal Mines Regulation Act, 1896, in this Colony during the year 1897, and in Great Britain and Ireland during the year 1896, including the persons employed on private branch railways, &c, and accidents to such persons —

Place	Death rate from Accidents per 1,000 Persons employed	Number of Persons employed per Fatal Accident	Number of Persons employed per Life Lost	Tons of minerals raised per Fatal Accident	Tons of minerals raised per Life Lost
In New South Wales for 1897.....	1.603	624	624	273,974	273,974
In Great Britain and Ireland, 1896 ...	1.480	798	676	240,212	303,418

EXPLOSIONS of Fire-damp and Coal-dust—Nil.

Date and hour.	Colliery	Seam	Barometer.		Number of Non fatal Accidents	Number of Persons Injured
			Height	Rising or falling		

ACCIDENTS from Explosions of Fire-damp and Coal-dust, classified according to cause.

Cause of Explosion.	Number of Fatal Accidents.	Number of Deaths.	Number of non-Fatal Accidents.	Number of Persons Injured.
Naked lights	Nil.	.....	.....	.....
Safety lamps	do	.....	.....	.....
Shot firing	do	.....	.....	.....
Miscellaneous	do	.....	.....	.....
Totals .....	.....	.....	.....	.....

Fortunately there were not any accidents from explosions of fire-damp and coal-dust.

ACCIDENTS from Falls of Roof and Side, classified according to the place where they happened.

Place where the fall occurred.	No. of Fatal Accidents.	No. of Deaths.	No. of Non-fatal Accidents.	No. of Persons Injured.
At the working face	9	9	31	32
On roads while repairing or enlarging .....	...	...	2	2
On roads while otherwise working or passing .....	...	...	...	...
Total from falls underground	9	9	33	34

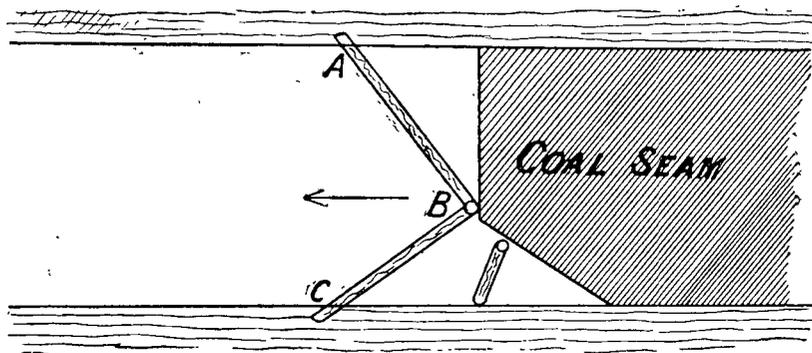
During 1897 there were reported 42 accidents due to falls, causing the death of 9 persons, and injuries to 34 persons, the corresponding figures for the previous year being 40 accidents, 7 deaths, and 33 persons injured.

Accidents by falls of roof and sides afford by far the most fruitful source of fatal results, this amounting in 1897 to 56.25 per cent. Eight of the deaths were caused by falls of coal, and one by a fall of stone; all the accidents taking place in the working face. All of them happened in the Northern or Newcastle district.

The Borehole seam, in which all these fatal accidents have occurred, varies from 5 to 14 feet in thickness, and contains many facings or slippery backs, which occur generally at regular intervals, and it is often that the accidents take place as these are reached in the holing, especially if the sprags or timber supports are not sufficient to hold the coal.

In such a thick seam it is advisable to use sprags under the holing as well as the longer or "soldier" sprags, which is the local name.

A very useful form of sprag for thick seams is that known as the "cockermeg," as shown on the sketch:—



The two thick props AB and BC are let into the roof and floor, and as the pressure increases at the point B these props become wedged more tightly.

This form of sprag is extensively used in the thicker seams in England, and if used in the Newcastle district might have the effect of preventing some of the accidents from falls of coal.

This matter is worthy of the attention of managers, officials, and miners, especially in the Newcastle seams.

It is satisfactory to note that in all the fatal accident inquiries there had always been sufficient timber of all descriptions ready for use and close at hand.

Greater immunity from this class of accidents can only be expected to result from more care on the part of the workmen, together with more diligent supervision by the officials, coupled with the punishment of miners who break the special rule with reference to the use of sprags.

The non-fatal accidents do not require any special remarks.

Shaft Accidents.—On the 18th December, Daniel Genders, onsetter at the Vale of Clwydd Colliery, was fatally injured by the cage at the bottom of the shaft. He had, evidently, been passing underneath one corner of the shaft when he was caught by the descending cage, causing a fracture of the skull, and almost instantaneous death. This was a breach of special rule 28, which states that "No person, while work is going on in the pit, shall be permitted to cross the bottom of the shaft."

Miscellaneous Underground Accidents.—In 1897, there were reported 5 fatal and 18 non-fatal accidents, resulting in the deaths of 5 persons, and injuries to 20 persons.

By Explosives.—There were 5 accidents from explosives, resulting in 1 death, and injuries to 5 persons.

ACCIDENTS with explosives, classified according to the nature of the explosive:—

Name of Explosives.	No. of Fatal Accidents.	No. of Deaths.	No. of Non-fatal Accidents.	No. of Persons Injured.
Gunpowder	1	1	4	5
	1	1	4	5

ACCIDENTS with explosives, classified according to their character or cause:—

Nature of Accident.	No. of Fatal Accidents.	No. of Deaths.	No. of Non-fatal Accidents.	No. of Persons Injured.
While conveying explosives	1	1
While thawing explosives
While charging { from sparks of lamp or candle.....
or stemming { when using iron or steel tools
holes { when using wooden, brass, or copper tools	1	1	1	2
Premature ex- { with squibs or straws
plosions { with safety fuse
Delayed explosions, due to fuse hanging fire	1	1
Blows from stones projected by shots	1	1
Sundries and unknown:
Totals.....	1	1	4	5

The only fatal accident occurred at the Newcastle Wallsend Colliery, on 15th October, when John Mawkes, shiftman, lost his life. He and his mate were engaged in taking up the floor of one of the engine planes to reduce the gradient. A hole about 4 feet deep was bored, and a plug of compressed powder was put into it, and whilst Mawkes was in the act of placing a second one, and feeling with the rammer (which was a copper one) if it was touching the first, an explosion occurred, which caused his death on 18th October. John Conn, his mate, was also severely burned on the face and shoulders, by the premature explosion of the shot, and his eyesight was seriously endangered.

At the inquiry and inquest there was no evidence produced to account for this accident, the hole having been of sufficient size, well bored, and the tools used all in accordance with the Coal Mines Act.

Of the other accidents caused by explosives, one was in consequence of a spark getting on to the powder carried by a miner when in the token cabin; the powder was in a tin bottle, and the accident was unexplainable.

Another occurred at Minmi Colliery, where a miner returned too soon (in contravention of special rules) to a shot which had missed fire.

At the Co-operative Colliery a miner was injured on the head by a piece of coal from a shot, which broke through the pillar between two bords.

At the Wickham and Bullock Island Colliery a miner had his hand burnt by powder which exploded therein from a spark which fell from the lamp on his head. In this case the miner was prosecuted for a breach of special rule.

UNDERGROUND Haulage Accidents.*

Nature of Accident.	No. of Fatal Accidents.	No. of Deaths.	No. of Non-fatal Accidents.	No. of Persons Injured.
While engaged in pushing tubs or skips .....	.....	.....	1	1
While engaged in coupling or uncoupling tubs or skips.....	.....	.....	3	3
Run over while passing along or across levels or engine planes.....	.....	.....	2	2
Crushed between tubs, or between tubs and sides of levels or planes and props	1	1	5	5
In other ways	1	1	2	2
Totals.....	2	2	13	13

* These include all accidents on inclined and engine planes, and by trams and tubs (see table headed, "Summary of Fatal and Non-fatal Accidents, classified according to Place and Cause").

On inclined and engine planes.—There was only 1 fatal and 1 non-fatal accident under this head, resulting in the death of 1 person and injury to 1.

The fatal accident occurred at South Greta Colliery to a miner named Ernest Albert Moore, aged 20 years. He was riding on a train of loaded tubs, when his head came in contact with the roof, causing fatal injuries. In riding on the tubs he was breaking one of the special rules in force at the colliery. The non-fatal accident does not require any remarks.

By trams and tubs.—One fatal and 12 non-fatal accidents, causing the death of 1 person and injuries to 12.

The fatal accident took place at the Co-operative Colliery, Plattsburg, to a wheeler named J. A. Thomas, aged 17½ years. Deceased was killed by being crushed between tubs and a prop. He was riding on the buffer of the first of three tubs, without a light, from a working place along a heading, and was coming out on to the "mothergate" or main bord. Part of his body projected beyond the corner of the tub, and in passing round a curve it was crushed between the tub and some props fixed on the outside of the curve to secure the roof. He died on the following day in Wallsend Hospital.

Although there is no special rule against working without a light, it is a reprehensible practice, and more especially when in charge of a horse and a train of tubs. It would have been much better had the deceased supplied himself with a light before commencing what unfortunately proved to be a fatal journey.

The non-fatal accidents, 12 in number, do not call for any particular comments, and were of the usual character, and may be divided about as follows:—Two were caused by persons attempting to get into tubs when in motion; 2 were jammed between horses and tubs, 4 were crushed between tubs when in motion, whilst 4 were run over by tubs.

By underground fires.—There were no accidents due to this cause.

Ropes and chains breaking.—There were no accidents due to this cause.

Sundries underground.—There were 2 fatal accidents and 1 non-fatal under this head, causing 2 deaths and injury to 1 person.

One death was due to a kick by a horse in the Stockton Colliery, when David Williams, wheeler, was killed. The horse had not the character of being particularly vicious or unmanageable.

The other fatal accident also occurred at Stockton, when William Hughes, stoneman, aged 31 years, was crushed to death by a baulk of timber falling upon him. He and his mate were driving a special place from the No. 3 shaft through a rise fault to connect with Ocean workings. Several baulks had been put in, one end being let into the wall side, whilst the other was supported by a prop. These baulks were covered with wood slabs, upon which was stowed a quantity of stone from the face. Deceased and his mate, thinking one of the props was loose and needed driving up, proceeded to do this, Hughes sitting under the baulk whilst his mate drove up the prop. Everything was wet, the wood was hard, and in consequence thereof, instead of the prop tightening with the blow, it flew out and let down the baulk upon Hughes, who was dead when he was got out. If a middle prop had been used, this accident, in all probability, would not have happened.

ACCIDENTS ON SURFACE—RAILWAYS OR TRAMWAYS.

Description.	No. of Fatal Accidents.	No. of Deaths.	No. of Non-fatal Accidents.	No. of Persons Injured.
While engaged in moving waggons .....	.....	.....	1	1
While engaged in coupling or uncoupling waggons	1	1	.....	.....
Run over while passing along or across railways or tramways.....	.....	.....	.....	.....
Crushed between waggons, or between waggons and structures.....	.....	.....	1	1
In other ways .....	.....	.....	2	2
Totals	1	1	4	4

Accidents on the Surface.—There was 1 fatal and 8 non-fatal accidents, resulting in 1 death and injuries to 8 persons.

The fatal accident happened to Charles Benjamin Drew, shunter on the Osborne-Wallsend Colliery branch, whilst engaged in coupling waggons, when he was severely crushed between the buffers, and died in a few hours afterwards.

Of the non-fatal accidents on the surface, the following are brief particulars:—

A screenman, named John Morgan, at the Newcastle Coal Company's "A" Pit, had his foot severely injured whilst riding on empty coal-waggons. In passing underneath the screens the foot was crushed between the wagon and the wooden uprights supporting the screens.

At South Waratah a shunter, named James Wilson, jumped off a moving train whilst shunting coal-waggons on a siding, and fell, with his leg doubled underneath him, causing a slight fracture.

John Stewart, locomotive engine-driver, at Greta Colliery, was scalded on the neck and shoulders by escape of steam and water, caused by the fracture of a bolt which secured the mud-hole cover of the boiler.

Fred. Brodgen, at the A.A. Company's New Winning, had his arm fractured. When attempting to hang up the key of the fan engine-house, standing on a ladder, he fell off, with the result above-named.

Walter Greyson, screenboy, at Burwood Colliery, had his arm caught in the cog-wheels of the machinery driving the belt, necessitating its amputation. The unfortunate boy was larking with a mate, and not at his place of work, and had often been warned about this before. He alone was to blame.

The remainder of the surface accidents do not call for particular remarks, and were of smaller importance.

SECTION IV.
LIST OF PROSECUTIONS.

Name of Mine.	Description of Offender.	Contravention.	Result of Trial.	Penalty.	Costs.
<i>(a) Prosecutions by direction of Minister for Mines.</i>					
Marshall's Colliery ...	Owner...	Breach of General Rule 20, <i>re</i> fencing of shafts	Conviction	£ 3 0 0	s. d. 4 10
Wickham and Bullock Island Colliery.	Miner ...	Breach of Special Rule 71, <i>re</i> handling explosives with naked light on the head.	do ...	2 0 0	4 10
Mount Kembla	Manager.	Breach of section 38, subsection 1, of Coal Mines Act, <i>re</i> weighing.	do ...	2 0 0	4 10
<i>(b) Prosecutions by Owners, &c., against Workmen.</i>					
Wallsend	Miner ...	Breach of General Rule 12, using an iron tamping rod in the process of stemming.	Conviction	0 5 0	5 6
Osborne-Wallsend ...	do ...	General Rule 12, subsection <i>e</i> , unramming an explosive ...	do ...	2 0 0	4 10
Metropolitan	do ...	Special Rule 193, passing a danger board	do ...	0 10 0	4 10
Do	do ...	Special Rule 211, matches in the pit	do ...	0 2 6	4 10
Seaham	do ...	Special Rules 2 and 23, passing fence and using abusive language.	do ...	0 10 0	11 0
Co-operative	do {	Breach of Special Rule 74, charging hole with naked light on head.	do ...	0 10 0	5 6
Metropolitan	do ...	Special Rule 82, passing a fence	do ...	0 10 0	5 6
Do	do ...	Breach of Special Rule 215, working with a broken lamp-glass, and failed to report same.	Accused did not appear.	.....	...
Do	do ...	Breach of Special Rule 224, having failed to report the broken lamp-glass in former case.	Conviction	2 0 0	4 10
Do	Deputy...	Breach of Special Rule 53, by failing to make a true report of a certain working place.	do ...	0 5 0	4 10

SECTION V.

GENERAL REMARKS.

TRADE.

The coal trade in the Colony during the year 1897 has been in a depressed condition, especially at those collieries depending entirely upon foreign trade, and in consequence the pits, generally speaking, have worked very irregularly.

With a larger demand for coal, the powers of production are such that the output could be doubled in a few years.

The oil-shale industry has also experienced a year of depression, in consequence of which some of the thin shale in several places has been abandoned until trade improves.

LITHGOW VALLEY COLLIERY.

In the beginning of the month of October last that portion of the Lithgow Valley Colliery which had been sealed off since the fire which took place in March, 1886, resulting in the loss of eight lives, was re-opened. Owing to the carefully organised arrangements in doing this, made by Mr. Campbell, the manager, it was successfully performed—the foul gases being carried out by a return airway and over a furnace, which were independent of those required for the ordinary working of the mine.

This fire was caused by an underground boiler which ignited the coal-seam, and is another example of the inadvisability of placing boilers in the workings, which are always a source of danger.

STOCKTON COLLIERY.

The No. 3 district of the Stockton Colliery, which was closed off after the disaster in December, 1896, is at present giving no trouble.

Seeing, however, that many of the stoppings (about eighty altogether) enclosing the abandoned area, are along the side of the main intake and engine plane, it is necessary that the management of the colliery should have them constantly repaired to prevent, if possible, any of them collapsing, which would immediately result in some of the noxious enclosed gases mixing with the intake air current. As many of the stoppings are large in superficial area, and not correspondingly thick, they require particular attention.

SYDNEY HARBOUR COLLIERIES (LIMITED).

Two shafts were commenced by the above-named company in June last, on the Balmain side of the harbour, and within 100 yards of high-water mark. They have proceeded very satisfactorily up to the present, and, having regard to their proximity to the sea, are remarkably free from water. They are expected to reach coal at something under a depth of 3,000 feet.

GENERAL CONDITION OF MINES.

Having commenced my official duties on 13th September last, it has not yet been possible to thoroughly examine all the coal and shale mines in the Colony, although I have been in many of the most important mines in each district.

VENTILATION.

VENTILATION.

Generally speaking the ventilation of the mines will compare favourably with that obtaining in the mines of the United Kingdom, and seeing that very little fire-damp is generated, the miners are able to perform their work under good sanitary conditions.

As far as I have been able to observe, general rule (1) with respect to ventilation is attended to with care by the majority of the colliery managers, the air being judiciously divided into different splits, and conducted to the face of the working places by means of brattice cloth.

During the hot weather, such as was experienced during the month of November, the temperature of the air in the coal-mines of the Colony, which are comparatively shallow, was considerably less than the outside shade temperature. This was tested on several of the hottest days, and it was found that the temperature in the face, or working places, of several mines was 20 degrees Fahrenheit lower than the shade temperature at the time.

Fan versus furnace ventilation.—Both fans and furnaces are used for ventilating purposes, but generally speaking the best ventilated collieries are those where fans are in operation, and their more extended use in the future is to be desired.

Frequently colliery managers are disposed to ventilate by means of a furnace, as the first cost of erection is less than that of a fan, although taken over a period of years, having regard to the extra efficiency of the fan in these shallow mines, the latter is much cheaper than the furnace.

The presence of a large furnace fire in a mine has occasionally given rise to serious accidents by igniting the coal-seam in the vicinity, the most recent one having occurred at one of the collieries belonging to the Bridgewater Trustees in Lancashire, which caused the mine to suspend work for several months this year, and involved the owners in considerable financial loss.

The best fans in use in Great Britain are all adapted to exhaust the air from the mine, and are on the centrifugal principle. Amongst these may be mentioned the Waddle, Guibal, Schiele, Capell, and Walker, any of which will give good results.

The general tendency in England is to adopt fans in preference to furnaces. In fact, at many of the older collieries where the furnace was in use, it has been discarded in favour of the fan. This change has been going on to such an extent recently, that in South Yorkshire at the present time there is not a single large colliery where the furnace is in operation.

EXPLOSIVES.

The regulations with reference to the use of explosives are contained in general rule 12, which is the same as that in the Imperial Act of 1887. The latter, however, has been amended by a short Act which came into operation in 1896, a copy of which is given further on in this report.

Compressed blasting-powder is generally used at the collieries in the Colony, both for coal and stone, fuse being the medium employed to explode the charge.

At the Metropolitan Colliery, Helensburgh, no explosives are used in the coal, and only occasionally, by written authority of the manager, in the stone, special care being taken to comply with all the provisions of general rule 12, and in addition there are the following special rules:—

234. Where it is necessary for, or the manager has directed safety-lamps to be used, a competent person, called a shot-firer, shall be appointed by the manager for firing all charges of explosive substances or shots in the mine where blasting is allowed.

235. No shots shall be fired except by the shot-firer.

236. He shall, if a charge misses fire, immediately put up a signal or fence to prevent persons entering the place, and shall not remove the same for at least eight hours, unless the shot has been attempted to be fired by an electric apparatus, and he has disconnected the wires and removed the battery.

237. No accumulation of gas shall be removed in a district while shots are being fired therein.

238. He shall strictly observe the provision of general rule 12, subsections *a, b, c, d, e, f*, but in lieu of subsections *g, h, i* the following further precautions shall be enforced:—

- (1.) He shall not fire shots in any part of the mine without the authority of the manager in writing, called a "Firing Order," and when the work is completed, for which such specific instructions have been granted, the order must be returned immediately to the manager.
- (2.) He shall not fire a shot if there is any accumulation of gas, however small, within a radius of 50 yards, or if gas is being given off in dangerous quantities. He shall not fire a shot if there is in any place in the same ventilating district an accumulation of fire-damp sufficiently serious to prevent workmen entering or working therein with safety.
- (3.) He shall not fire a shot under any circumstances unless the place for a radius of 20 yards has been cleared of material accumulations of fine small coal or dust; the roof and sides and timber brushed clear of dust; all stringy or readily inflammable bark peeled from timber for 10 yards back from shot-hole; the roof, sides, and floor thoroughly saturated with water; the brattice-cloth damped for 5 yards back, and a wet cloth placed in a position to intercept the flame of a blown-out shot.
- (4.) If the shot is required on a haulage road worked by steam or other mechanical power, he shall remove from the mine all persons other than the men engaged in firing the shot, and such persons, not exceeding ten required for necessary work, as prescribed by general rule 12, subsection *i*.
- (5.) He shall not fire a shot if from any cause whatever he apprehends danger, and that thereby life or property would be in peril.
- (6.) He shall satisfy himself that the hole has been properly charged, and that only clay or other materials, approved by the manager, are used for stemming.
- (7.) He shall upon no account use, or permit to be used, gunpowder, and shall only use such other explosives as the manager may authorise.

239. He shall fire only one shot at a time, and before firing another shall return to the place and carefully examine it for fire-damp, and as to the security of the roof and sides, and shall not permit any person to enter therein (unless for repairs) until he has reported the same to be safe.

When an explosive is required, one of the permitted explosives under the Imperial Act is used.

At most of the collieries the miners use blasting-powder to assist them in getting down the coal in the whole mine, or first working, although it is seldom required in the removal of the pillars, which is called the "broken" or second working. Although

Although there are not many coal-mines in the Colony which would be described generally as very dusty, yet there is, in my opinion, sufficient dry coal-dust to be found on many of the main haulage roads to produce disastrous results under certain conditions.

The following explosions have taken place in England under the same stringent regulations as those contained in general rule 12, as the result of firing shots on dusty haulage roads:—

Camerton, 13th November, 1893	...	...	...	2 lives lost.
Timsbury, 6th February, 1895	...	...	...	7 „
Blackwell, 11th November, 1895	...	...	...	7 „
Brancepeth, 13th April, 1896	...	...	...	20 „

These collieries were practically free from fire-damp, being worked with naked lights, and were looked upon as particularly safe from explosions.

It is in some cases this false idea of safety, arising generally from an unbelief in the danger provided for, which produces indifference to regulations, and it is probable that the explosions named would not have occurred had the provisions of general rule 12 been carried out.

The dreadful explosion which took place at the Bulli Colliery on the 23rd March, 1887, resulting in the loss of eighty-two lives, which, according to the almost unanimous evidence given at the inquest, was caused initially by a gunpowder shot igniting fire-damp in the face of the headings, and was carried to the mouth of the tunnel by means of the fine dry coal-dust deposited on the main haulage road, and but for this latter element of danger the explosion would probably have been a local one, confined to the neighbourhood of the face of the headings.

In view of all these facts it is an important part of the duties of all colliery managers to impress upon all their officials and workmen the necessity for a strict observance of the regulations imposed by general rule 12. As an extra precaution they should not allow any gunpowder shots to be fired on main haulage roads without the written authority of the manager.

The short Act amending the use of explosives under the Imperial Act of 1887, which came into force on the 14th August, 1896, is as follows:—

In substitution for the Order dated 19th December, 1896.

ORDER made by the Secretary of State for the Home Department under Section 6 of the Coal Mines Regulation Act, 1896.

Whereas [by Section 6 of the Coal Mines Regulation Act, 1896, it is enacted that a Secretary of State, on being satisfied that any explosive is, or is likely to become, dangerous, may by order prohibit the use thereof in any mine or in any class of mines either absolutely or subject to conditions :

I hereby, in pursuance of the power conferred on me by the aforesaid section, make the following Order :—

Absolute prohibition of certain explosives in unsafe mines.

- 1.—(1) In all coal-mines in which inflammable gas has been found within the previous three months in such quantity as to be indicative of danger, the use of any explosive, other than a permitted explosive, as hereinafter defined, is absolutely prohibited in the seam or seams in which the gas has been found.
- (2) In all coal-mines which are not naturally wet throughout, the use of any explosive, other than a permitted explosive, as hereinafter defined, is absolutely prohibited in all roads, and in every dry and dusty part of the mine.

Conditional prohibition of other explosives in unsafe mines.

2. In all such coal-mines or parts thereof as aforesaid, the use of permitted explosives is prohibited unless the following conditions are observed :—

- (a) Every charge of the explosive shall be placed in a properly drilled shot hole and shall have sufficient stemming :
- (b) Every charge shall be fired by an efficient electrical apparatus, or by some other means equally secure against the ignition of coal-dust :
- (c) Every charge shall be fired by a competent person appointed in writing for this duty by the owner, agent, or manager of the mine, and not being a person whose wages depend on the amount of mineral to be gotten :
- (d) Each explosive shall be used in the manner and subject to the conditions prescribed in the Schedule hereto, or in any Schedule substituted therefor by any future Order :

Provided that nothing in this Order shall prohibit the use of a safety fuse in any mine in which inflammable gas has not been found within the previous three months in such quantity as to be indicative of danger.

Conditional prohibition of all explosives in main roads.

3. In every coal-mine the use of any explosive is prohibited in the main haulage roads and in the intakes unless all workmen have been removed from the seam in which the shot is to be fired, and from all seams communicating with the shaft on the same level, except the men engaged in firing the shot, and in addition such other persons, not exceeding ten in number, as are necessarily employed in attending to the ventilating furnaces, steam boilers, engines, machinery, winding apparatus, signals, or horses, or in inspecting the mine ; or unless a permitted explosive is used, and every part of the roof, floor, and sides of the main haulage road or intake, within a distance of 20 yards from the place where it is used, is, at the time of firing, thoroughly wet, either naturally or from the application of water thereto.

This section shall not apply to such portions of the main haulage roads and intakes as are within 100 yards of the coal face.

This section shall not authorise the use of any explosive in any case where the use of such explosive is prohibited by Section 1 or 2 of this Order.

Application of Order.

4. This Order shall not apply to mines of clay, or stratified or nodular ironstone, nor shall it apply to shafts in course of being sunk from the surface, or deepened, or to drifts and other outlets being driven from the surface, if such shafts, drifts, or outlets, are not ventilated by return air.

Where a mine contains several separate seams this Order shall apply to each seam as if it were a separate mine.

Definitions.

5. In this Order the term “permitted explosives” means such explosives as are named and defined in the Schedule hereto or in any Schedule substituted therefore by any future Order : provided that where the composition, quality or character of any explosive is defined in such Schedule, any article alleged to be such explosive which differs therefrom in composition, quality or character, whether by reason of deterioration or otherwise, shall not be deemed to be the explosive so defined : provided further that an owner, agent, or manager shall not be responsible for the composition, quality, or character of an explosive, if he shows that he has in good faith obtained a written certificate from the maker of the explosive that it complies with the terms of the Schedule, and that he has taken all reasonable means to prevent deterioration of the explosive while stored.

The

The term "road" includes all roads of any description extending from the shaft or outlet to within 10 yards of the coal face.

The term "main haulage road" means a road which has been, or for the time being is, in use for moving trams by gravity or by steam or other mechanical power.

Commencement.

6. This Order shall come into force on the first day of January, 1898.

Revocation of former Order.

7. The Explosive in Coal-mines Order, 1896, is hereby revoked from this date.

Citation.

8. This Order may be cited as the Explosives in Coal-mines Order, 1897.

M. W. RIDLEY,

One of Her Majesty's Principal Secretaries of State.

Home Office, Whitehall, 4th June, 1897.

*Schedule.—List of Permitted Explosives.**

Ammonite, consisting of Ammonium Nitrate not more than 89 parts and not less than 87 parts, uniformly incorporated with thoroughly purified di-nitro-naphthalene not more than 13 parts and not less than 11 parts, and with no other ingredient.

Provided that the explosive be used only in the form of blasting cartridges, not containing their own means of ignition, and that every such cartridge be contained or enclosed in a thoroughly waterproof case.

Provided also that the explosive be fired only by means of a detonator or electric detonator fuze of not less strength than that known as No. 7 containing of explosive of the Fifth (Fulminate) Class not less than 23 grains.

Ardeer Powder, consisting in every 100 parts of the finished explosive, of not more than 34 parts and not less than 31 parts of thoroughly purified nitro-glycerine with not more than 13 parts and not less than 11 parts of kieselguhr, with not more than 51 parts and not less than 49 parts of magnesium sulphate, and with not more than 6 parts and not less than 4 parts of potassium nitrate with or without the addition of not more than half a part of ammonium carbonate, and not more than half a part of calcium carbonate and with no other ingredient, the whole being uniformly incorporated and of such character and consistency as not to be liable to exudation.

Provided that the explosive shall be fired only by means of a detonator or electric detonator fuze, of not less strength than that known as No. 3 containing explosive of the Fifth (Fulminate) Class not less than 8 grains.

Provided also that the explosive shall not be fired in the frozen condition.

Bellite, No. 1, consisting of ammonium nitrate not more than 81 parts and not less than 79 parts, uniformly incorporated with thoroughly purified meta-di-nitro-benzol not more than 21 parts and not less than 19 parts, and with no other ingredient.

Provided that the explosive be used only in the form of blasting cartridges not containing their own means of ignition, and that every such cartridge be contained or enclosed in a thoroughly waterproof case or wrapper.

Provided also that the explosive shall be fired only by means of a detonator or electric detonator fuze of not less strength than that known as No. 7 containing of explosive of the Fifth (Fulminate) Class not less than 23 grains.

Bellite, No. 3, consisting of ammonium nitrate not more than 94 parts, and not less than 92 parts uniformly incorporated with thoroughly purified meta-di-nitro-benzol not more than 8 parts and not less than 6 parts, and with no other ingredient.

Provided that the explosive be used only in the form of blasting cartridges not containing their own means of ignition, and that every such cartridge be contained or enclosed in a thoroughly waterproof case or wrapper.

Provided also that the explosive shall be fired only by means of a detonator or electric detonator fuze of not less strength than that known as No. 6, containing of explosive of the Fifth (Fulminate) Class not less than 15 grains.

Carbonite, consisting in every 100 parts of the finished explosive, of not more than 27 parts and not less than 25 parts of thoroughly purified nitro-glycerine, with not more than 36 parts and not less than 30 parts of barium nitrate and potassium nitrate, or either of them, and with not more than 43 parts and not less than 37 parts of woodmeal, with or without not more than half a part of sulphuretted benzol, and not more than half a part of sodium carbonate and calcium carbonate, or either of them, and with no other ingredient, the whole being uniformly incorporated and of such character and consistency as not to be liable to exudation.

Provided that the explosive shall be fired only by means of a detonator or electric detonator fuze of not less strength than that known as No. 6 containing explosive of the Fifth (Fulminate) Class not less than 15 grains.

Provided also that the explosive shall not be fired in the frozen condition.

Dahmenite A, consisting in every 100 parts of the finished explosive, of not more than 93½ parts, and not less than 91 parts of ammonium nitrate, with not more than 6½ parts and not less than 4 parts of naphthalene, and with not more than 2½ parts and not less than 1 part of potassium bichromate, and with no other ingredient, the whole being uniformly incorporated.

Provided that the explosive be used only in the form of blasting cartridges not containing their own means of ignition, and that every such cartridge be contained or enclosed in a thoroughly waterproof case or wrapper.

Provided also that the explosive shall be fired only by means of a detonator or electric detonator fuze of not less strength than that known as No. 7 containing explosive of the Fifth (Fulminate) Class not less than 23 grains.

Electronite No. 2, consisting of ammonium nitrate not more than 91 parts and not less than 90 parts, uniformly incorporated with not more than ten parts and not less than 9 parts of woodmeal and starch, and with no other ingredient.

Provided that the explosive be used only in the form of blasting cartridges not containing their own means of ignition, and that every such cartridge be contained or enclosed in a thoroughly waterproof case or wrapper.

Provided also that the explosive be fired only by means of a detonator or electric detonator fuze of not less strength than that known as No. 6 containing of explosive of the Fifth (Fulminate) Class not less than 15 grains.

Kynite, consisting in every 100 parts of the finished explosive of not more than 27 parts and not less than 25 parts of thoroughly purified nitro-glycerine, with not more than 36 parts and not less than 30 parts of barium nitrate and potassium nitrate, or either of them, and with not more than 43 parts and not less than 37 parts of woodmeal, with or without not more than half a part of sulphuretted benzol and not more than half a part of sodium carbonate and calcium carbonate, or either of them, and with no other ingredient, the whole being uniformly incorporated, and of such character and consistency as not to be liable to exudation.

Provided that the explosive shall be fired only by means of a detonator or electric detonator fuze of not less strength than that known as No. 6, containing explosive of the Fifth (Fulminate) Class not less than 15 grains.

Provided also that the explosive shall not be fired in the frozen condition.

Roburite No. 3, consisting in every 100 parts of the finished explosive of not more than 89 parts and not less than 86 parts of ammonium nitrate, with not more than 13 parts and not less than 9 parts of thoroughly purified di-nitro-benzol, with or without not more than 2 parts of chloro-naphthalene containing of chlorine not more than 1 part, and with no other ingredient, the whole being uniformly incorporated.

Provided that the explosive be used only in the form of blasting cartridges not containing their own means of ignition, and that every such cartridge be contained or enclosed in a thoroughly waterproof case or wrapper.

Provided also that the explosive shall be fired only by means of a detonator or electric detonator fuze of not less strength than that known as No. 6, containing explosive of the Fifth (Fulminate) Class not less than 15 grains.

Westfalite, consisting of ammonium nitrate not more than 96 parts and not less than 94 parts, uniformly incorporated with gum-lac soluble in alcohol not more than 6 parts and not less than 4 parts, and with no other ingredient.

Provided that the explosive be used only in the form of blasting cartridges not containing their own means of ignition, and that every such cartridge be contained or enclosed in a thoroughly waterproof case or wrapper.

Provided

* This list remains unaltered. It is provisional only, and is subject to revision in accordance with the results of experiments which are to be made in the Government Testing Station now erected at Woolwich.

Provided also that the explosive shall be fired only by means of a detonator or electric detonator fuze of not less strength than that known as No. 8, containing of explosive of the Fifth (Fulminate) Class not less than 30 grains.

Provided that, in addition to the marking on the outer package containing any of the above explosives enjoined by an Order of the Secretary of State made under section 40 of the Explosives Act, 1875, and in force for the time being, such outer package shall bear the words "As defined in the List of Permitted explosives," together with the date of this Order. And further that each inner package shall be marked with the words "Permitted Explosive," and also with the name of the explosive, the date of manufacture, and the nature and proportion of the ingredients.

PLANS OF COLLIERY WORKINGS.

The regulations with reference to the keeping of plans showing the colliery workings are contained in section 28 of the Coal Mines Regulation Act, 1896.

This matter, in my opinion, does not receive the amount of attention it deserves from some owners and managers, and I have frequently had to point out the omission from the plans of details required by subsection (1), section 28.

It is advisable that the surveying and keeping of plans of colliery workings should be done only by efficient surveyors, who should have passed an examination and obtained a certificate approved of by the department. Until something of this nature is done it will be difficult to obtain the attention to this important matter which it deserves. At the same time I am pleased to say that at some collieries there are reliable and painstaking surveyors and well-kept plans.

There are many small coal-mines in the Colony which in times of depression in the coal trade are either permanently or temporarily abandoned, and I beg to call the attention of colliery owners and managers to the regulations on this matter contained in sections 30, 31, and 32 of the Coal Mines Act, 1896.

In some cases, where it is the intention only to temporarily abandon a mine, this, from unforeseen circumstances, may eventually prove to be a permanent abandonment; and the regulation contained in subsection (1) of section 32—which requires that "Where any mine or seam is abandoned the owner of the mine or seam at the time of its abandonment shall, within three months after the abandonment, send to the Minister an accurate plan showing the boundaries, the whole of the workings of the mine or seam up to the time of the abandonment, and the position of the workings with regard to the surface, and the general direction and rate of dip of the strata sunk through, or, if that is not reasonably practicable, a statement of the depth of the shaft, with a section of the seam; every such plan must be on a scale of not less than 2 chains to the inch, or on the same scale as the plan used at the mine at the time of its abandonment"—is apt to be lost sight of if not attended to at once.

The importance of the deposition of the plans of abandoned colliery workings has been forcibly impressed upon the mining community by an irruption of water into the workings of the Harvey seam of the East Hetton Colliery, in the county of Durham, England, on the 6th May last, from the workings in the same seam of the adjoining Cassop Colliery, when ten lives were lost. It appears from the evidence that the plan of the Harvey seam workings of the Cassop Colliery, abandoned about the year 1870, was not deposited at the Home Office, and it could not be traced by the manager of the East Hetton Colliery, who did all in his power to get a copy of it. If this plan had been available the serious accident referred to would not have taken place, but there was not any legal obligation to keep plans of colliery workings before the Coal Mines Act of 1872 in England.

METHODS OF WORKING COAL.

Broadly speaking, there are only two methods adopted for working coal, and these are:—

1. The bord and pillar or stoop and room system. This consists in forming galleries (variously called bords, rooms, walls, headways, headings, &c.) by excavating the coal and leaving rectangular blocks to support the roof, called pillars or stoops. This operation is technically called working the "whole" mine, whilst the operation of removing the pillars is called the "broken" or second working. Single and double stall are modifications of this system.
2. The longwall system consists in the entire removal of the coal in one operation, the roadways for haulage, ventilation, &c., being maintained through the waste goaf or gob. In this case the roof for the necessary roads is kept up by building solid stone packs by the side of them, whilst the remainder of the roof between these walls or stone packs is allowed to come down and close.

The system generally adopted in the Colony is that of the bord and pillar. In a few cases double stalls are being successfully worked.

The longwall system has been tried in a few cases, but has generally been abandoned.

When coal was first worked in the Colony it was obtained from the outcrops of the seams, where the amount of strata above the coal was inconsiderable.

In the course of time, as the coal near the outcrops became exhausted, deeper pits were sunk, and at the present time there are several collieries in the Newcastle district about 600 feet deep, whilst the Metropolitan Colliery, Helensburgh, is 1,100 feet deep; in fact some of the workings at the latter are 1,500 feet below the surface.

In the very shallow workings it was customary to get as much coal out as possible in the whole or first working, leaving only thin ribs of coal between the bords, and there was no intention, in most of these cases, to get any of the coal in these ribs by working the "broken."

As the deeper coal had to be worked, sufficient attention was not given to the additional amount of weight to be supported by the coal pillars, in consequence of the extra depth; and as the result of this the superincumbent strata crushed the pillars down, causing what is known in mining language as a "thrust" or "creep," by which all the old bords and walls which had been formed became closed up, and in some instances resulting in loss of life and property.

Frequently the bords were driven 8 yards wide, leaving from 4 to 6 yards of coal in the walls, and sometimes less than this, even in cases where there was 300 to 400 feet of strata above the coal.

In addition to the advisability of leaving larger pillars in order to prevent "thrusts" or "creeps," there are other reasons which might be urged in favour of large pillars as compared with small ones.

There are many natural conditions which require to be considered with reference to the methods of working coal, and the most suitable size of pillars to be left, but there are no peculiarities in the coal-fields of the Colony to prevent the pillars being left larger, and more especially in those cases when it is intended to remove them.

The

The following table, collected from various sources, shows the sizes of pillars left at various collieries in England and Scotland:—

Name of Colliery.	Seam.			Coal left in Yards.	Coal taken out.		Percentage of Coal.	
	Name.	Thickness.	Depth from Surface.		Bords.	Walls.	Taken.	Left.
Rainton, Alexandrina Pit	Low main	4 ft. 0 in.	240 to 420	20 x 15	5	2	32	68
Do Adventure do	do	3 " 9 "	300	60 x 40	5	2	14	86
Do Nicholson's do	do	3 " 9 "	450	22 x 12	5	2	36	64
Framwellgate	Hutton	3 " 5 "	240	40 x 14	5	2	30	70
Houghton	do	4 " 0 "	1,200	20 x 20	4	2	25	75
Do (more recent)	Main coal	7 " 0 "	570	100 x 80	2	2	5	95
Lumley, 6th Pit	Low main	4 " 0 "	450	28 x 14	5	2	31	69
Haswell	Hutton	5 " 0 "	1,200	30 x 20	5	2	25	75
Whitworth	Brockwell	4 " 0 "	420	33 x 10	5	2	38	62
Sherburn Hill	Hutton	5 " 3 "	600	22 x 20	5	2	27	73
Do	do	5 " 3 "	600	40 x 40	5	2	16	84
Seaton	do	4 " 6 "	1,500	40 x 40	4	4	18	82
Ryhope	Maudlin	7 " to 8 ft.	1500 to 1800	40 x 30	4	4	20	80
Seaton Burn	Low main	4 ft. 0 in.	350	30 x 16	5	2	29	71
Team Coll. in 1811	Yard	6 " 0 "	450	24 x 10	4	2	34	66
Spennymoor	Brockwell	4 " 0 "	420	38 x 12	5	2	33	67
Do	do	4 " 0 "	450	46 x 12	5	2	32	68
Elemore	Hutton	4 " 6 "	570	28 x 12	5	2	35	65
Newbottle, Dorothea	Five Quarter	3 " to 3 ft. 8 in.	690	20 x 10	5	2½	41	59
Do do	do	3 " to 3 " 8 "	690	28 x 14	5	2½	32	68
Do do	do	3 ft. 4 in. to 3 ft. 8 in.	750	28 x 18	5	2½	28	72
Do Margaret	do	3 " 4 " to 3 " 8 "	750	28 x 16	5	2½	30	70
South Hetton	Hutton	5 ft. 0 in.	1,060	33 x 14	4	4	30	70
Marley Hill	Busty	5 " 0 "	432	50 x 20	5	3	21	79
Townley	Brockwell	2 " 10 "	504	30 x 12	5	2	27	73
Annfield Plain	Main coal	4 " 5 "	444	30 x 30	5	2	20	80
Killingworth	High main	6 ft. to 8 ft.	678	20 x 12	5	2	32	68
Allanshaw	do	7 ft. 0 in.	702	30 x 20	4	3	24	76
Wearmouth	Maudlin	6 " 10 "	1,620	40 x 40	4	3	16	84
Silksworth	do	5 " 8 "	1,620	50 x 50	4	2½	12	88
Garesfield	Brockwell	2 " 2 "	210	24 x 24	5	3	25	75
Castle Eden	Lowmain	3 " 0 "	900	33 x 22	5	3	26	74
Murton	Hutton	4 " 8 "	1,500	44 x 44	4	3	14	86
Eppleton	Main coal	6 " 6 "	1,038	33 x 44	5	2	16	84
Do	Hutton	3 " 6 "	1,350	66 x 33	3	5	15	85
Do	do	3 " 6 "	1,350	55 x 30	5	3	19	81
Do	Main coal	6 " 7 "	1,038	66 x 44	5	3	14	86
Clifton Hall	do	5 " 6 "	1,620	30 x 30	2½	2½	14	86

I am indebted to Bulman and Redmayne's "Colliery Management" and Pamey's "Handbook for Colliery Managers" for a portion of these particulars.

From an examination of this table it will be found that for depths up to 900 feet in the twenty-five examples given, the average depth is 518 feet, whilst the percentage of coal left in the pillars is 72·6, and that taken out in the whole mine is 27·4 per cent.

With pillars 31 yards by 8 yards, the bords being 8 yards wide, and the walls 2 yards wide, as is frequently left in the Colony, the percentage of coal taken in the whole mine is 53, whilst if the pillars are left 31 yards by 6 yards, which is not uncommon, the percentage of coal taken out in the whole is 60, thus leaving less than half the coal in both cases.

There are two or three instances in which larger pillars have been left, and it is to be hoped that there will be a greater tendency in this direction in the future.

On this matter the following references are made in the valuable report of the Court of Investigation appointed to inquire into the Stockton Colliery accidents. At the bottom of page 8 we find the following remarks:—"It has, however, been apparent that, apart from these difficulties imposed by nature, the colliery operations have been subject to serious interruptions, and the shareholders' interests have been sacrificed, by reason of a reckless and improvident system of mining, calculated to invite disaster. As early as 1889 (*vide* Mr. Humble), when the colliery was practically in its infancy, a crush took place, stopping work for some weeks; and similar trouble has been met with in later years. From an inspection of the plan, it is obvious that this trouble was due, not to unforeseen causes, but to the absence of adequate provision in the way of pillars to protect the working from the pressure of the superincumbent strata, known to consist largely of water-charged sandy alluvium, the security of the main shaft even being, from the same cause, not above suspicion. This absence of provision for the protection of ordinary working is regrettable enough; but, when roads have suffered from the same cause, and as operations have extended matters have not improved materially, one is astonished that the management of a large colliery, warned by costly experience, should not adopt a system of mining fairly certain to ensure safety, and ultimately to prove the more profitable. The absence of sufficient barriers, or pillars of coal, to support main roads, and isolate different districts, seriously increases the difficulty of sealing off this fire, and has certainly intensified the danger."

HAULAGE.

The haulage of the coal is performed principally by:—

- | | |
|----------------------------------|------------------------|
| 1. Horses. | } Actuated by engines. |
| 2. Main and tail rope | |
| 3. Endless rope | } Worked by gravity. |
| 4. Ordinary self-acting inclines | |
| 5. Endless " " " | |

On account of the thick and nearly level seams, large horses are extensively used, and they are frequently taken up to the working face to haul the coal. There

There are several collieries well fitted up with extensive main and tail rope and endless rope haulage worked with steam engines. In one or two instances auxiliary engines for secondary haulage are fixed at a considerable distance from the shafts, where the engines are worked by compressed air, which is taken down the mine in pipes from the air-compressing plant working on the surface.

There are more installations of the main and tail rope than of the endless rope system, although the tendency is to adopt the endless in preference to the former method of haulage; and having regard to its acknowledged superiority over the main and tail rope system, and the favourable conditions which exist for its more general adoption, it is probable that it will find more favour in the future.

Where the inclination of the seam is sufficient, and in favour of the full tub or towards the shaft, ordinary self-acting inclines are worked, and sometimes also self-acting endless inclines, both of which systems are economical and expeditious methods of haulage.

Where mechanical means are used for haulage, it is advisable, whenever this is possible, to provide a separate travelling road for the men, boys, and horses, in order to reduce the chances of accidents on the haulage roads. This is already done in many cases, and will probably be extended in the future, especially if managers, when laying out their workings, will take the precaution of providing for the separate travelling road being driven.

LIGHTING OF MINES UNDERGROUND.

The only colliery in the Colony where safety-lamps are entirely used for the underground workings is at the Metropolitan Colliery, Helensburgh, where a considerable quantity of fire-damp is regularly given off with the freshly-exposed surfaces of the coal.

Locked safety-lamps are also used for the purpose of examination before the miners commence work, in those mines where inflammable gas has been found within the preceding twelve months, in terms of general rule 4.

Where naked lights are used the Scotch miner's oil lamp is the usual one adopted, and these are hung by means of a hook to the miner's cap.

When the miners are engaged in charging or stemming their holes for blasting, it is a dangerous practice to allow this light to remain fixed on the cap, and the special rules forbid this being done as many accidents have resulted from sparks igniting the charge. In Scotland, where this light is in general use, it was found necessary to add a special rule to meet this contingency, in view of the regular accidents occurring from this cause.

In a few instances, the electric light has been applied for lighting the main roads about the shaft bottom, where it is found most useful and much safer than oil or paraffin lamps.

METHODS OF SIGNALLING.

In shafts, the ordinary wire and lever signal is generally used, although the electric signal has been adopted in a few instances. On engine planes the use of the electric signals is very common, and is found to be much quicker than the old-fashioned method named above, besides having the distinct advantage that a signal can be given from any point in the plane or haulage road, which cannot be done with the wire signal.

AMBULANCE.

With a view of affording working miners and others engaged in coal and shale mines an opportunity of obtaining such instruction as will enable them to render "First aid" to the injured, the Secretary for Mines and Agriculture appointed a committee under the name and style of the New South Wales Government Ambulance Corps.

The officers of this corps are:—Patron, The Honorable Sydney Smith, M.P.; President, Mr. D. C. McLachlan, J.P.; Committee, Dr. S. T. Knaggs, Dr. G. P. M. Woodward, Dr. W. L'Estrange Eames, Surgeon-Colonel W. L. Williams, P.M.O., Dr. Clifton Sturt, and Messrs. A. A. Atkinson, John Dixon, F.G.S., T. L. Bates, F.G.S., and W. Humble, F.G.S.; Secretary, Mr. H. Dalrymple Wood.

The committee arranges for the formation of classes, and, at the conclusion of the course of the instruction, for their examination.

To such members of these classes as attain the standard of proficiency prescribed by the committee, certificates are issued.

Each of the classes on its formation is provided with copies of the Ambulance Handbook issued by the authority of the Railway Commissioners and of Service Stretcher Drill, and with triangular bandages and blankets. If a class be put to the expense of hiring a hall for its use the corps shares with it the cost.

Already classes under the auspices of the corps have been established in connection with a number of the most important of the mines in the Northern district.

The following information in regard to these and other classes enjoying the benefits provided by the corps may be of interest:—

Name of Class.	Name of Surgeon-Instructor.	Number in attendance at class.	Number of Candidates who attended Examination.	Number of Candidates who obtained Certificates.	Name of Examining Officer.
Bulli	Surgeon-Captain Clifton Sturt, M.S.C.	38	20	20	Surgeon-Colonel W. L. Williams, P.M.O.
Burwood	Dr. Harwood	30	.....	.....	do do do
Lambton	Dr. Stapleton	34	17	17	do do do
Merewether.....	Dr. Wm. Clarke.....	30	30	30	Dr. G. P. M. Woodward, Railway Medical Officer.
Minmi (No. 1).....	Dr. A. Morton Gladden	27	24	22	do do do
Newcastle (Central)	Dr. W. L'Estrange Eames	36	16	16	do do do
Plattsburg	Dr. H. K. Bean	33	25	24	do do do
Stockton	Dr. J. W. Hester	33	11	11	Surgeon-Colonel W. L. Williams, P.M.O.
Wallsend	Dr. H. K. Bean	26	12	12	Dr. G. P. M. Woodward.
Do	Dr. J. B. Nash	24	16	16	Surgeon-Colonel W. L. Williams, P.M.O.
West Wallsend	Dr. J. Preston Hocken...	20	13	13	Dr. W. L'Estrange Eames.
Genowlan (Capertee)	Dr. C. W. Purdey.....	24	.....	.....	.....
Charlestown	Dr. Pearson.....	19	.....	.....	.....

The committee, during the past year, after considering the various designs of stretcher, has decided to recommend the regulation field stretcher, known as Mark V, and used by the Medical Staff Corps, as the most suitable for use in and about mines.

As the result of a paper read before the committee by Dr. W. L'Estrange Eames, a sub-committee was appointed to consider the advisableness of establishing life brigades at mines. The sub-committee (which consists of Dr. Eames, Mr. A. Filmer, Electrical Inspector (Railways) for the Northern district, the Inspectors stationed in the north, and myself) has had several meetings, besides having made some experiments and inquiries.

BOARD FOR EXAMINATION FOR CERTIFICATES.

The constitution of the Board is as follows:—

Jesse Gregson, Esq., J.P. (<i>Chairman</i>), Australian Agricultural Company, New-	}	Mine Owners.
castle.		
Wm. Sandford, Esq., Eskbank Iron Works, Lithgow	}	Mining Engineers.
Thomas Saywell, Esq., 16, York-street, Sydney		
D. A. W. Robertson, Esq., J.P., Metropolitan Colliery, Helensburgh	}	Miners.
Richard Thomas, Esq., J.P., Brown's and Duckenfield Collieries, Minmi		
L. B. Blackwell, Esq., The Vale Colliery, Lithgow.	}	Miners.
Adam Cook, Esq., Wallsend		
W. T. Philpot, Esq., Corrimal	}	Miners.
David Leake, Esq., Lithgow		
John Dixon, Esq., F.G.S. (<i>Vice-Chairman</i>), Inspector.		
Secretary to the Board—H. D. Wood, Esq., B.A., LL.B., Mines Department, Sydney.		

The examiners appointed by the Board for conducting the examinations were:—Messrs. W. Humble, F.G.S., H. Osborne MacCabe, J.P., and T. Cater.

The first examinations under the Coal Mines Regulation Act, 1896, were held at Newcastle on the 27th, 28th, 29th, and 30th January, 1897, and at Sydney on the 10th, 11th, and 12th of March, with the following results:—

RESULT of the Examinations for Certificates.

	First-class Certificates.		Second-class Certificates.	
	Number of Candidates.	Number of Passes.	Number of Candidates.	Number of Passes.
Newcastle	22	12	14	9
Sydney	6	1	14	6
Total	28	13	28	15

By permission of the Board for appointing Examiners, the questions put at the Examinations in 1897 are given herewith:—

EXAMINATION FOR FIRST-CLASS CERTIFICATES OF COMPETENCY—27TH, 28TH, AND 29TH JANUARY, 1897.

Technical College, Newcastle. First Day—Morning: 9:30 a.m. to 12:30 p.m.

Marks.

Arithmetic.

- 6 1. If the wages and stores bill on 1,000 tons of coal selling at 6s. per ton amounts to £250, what is the profit after a 5 per cent. advance in wages and stores, and a corresponding rise of 9d. per ton in the selling price?
- 7 2. If Jones does a piece of work in four days, Smith does it in five days, and Robinson does it in eight days, how long would it take if they all worked together?

Geology.

- 6 1. If, in working a seam of coal, you came upon a part, where, although the roof and floor were unbroken, the coal had been replaced by stone, what inference would you draw as to the origin of this phenomenon, and how would you proceed in searching for the coal?
- 5 { 2. (a) How do you account for the fact that at and about West Maitland and Greta the strata are highly inclined, more so than the same strata some distance away? Give in detail the probable cause thereof.
- (b) Describe briefly the principal seams worked in the Illawarra district, mentioning the chief dykes, faults, and rolls met with in working. What is your idea as to the origin of the latter?
- (c) Give a brief account of the principal coal-seams in the Western district, specifying thickness and character of coal, and the chief faults and dykes met with in working.

NOTE.—Either (a), (b), or (c) may be attempted, but not more than one of them.

Surveying.

- 8 1. Give a sketch of a few workings in a mine, and show how you would keep your surveying book with bearings, distances, dip, width of places, and thickness of coal entered.
- 5 2. If a seam dips south from the outcrop at the rate of 1 in 8, what would be the depth of a shaft sunk to it 1½ mile away in the direction of full dip, assuming the surface to be level?
- 6 3. How would you proceed to find the area of a triangle when the three sides are given? Supposing they are 65, 75, and 82 yards, what is the area in acres?

Ventilation and Mine Gases.

- 10 1. If in a far off district in a mine you found the ventilation insufficient, what would you do to increase it, assuming the available pressure was already at its maximum?
- 11 2. What is the composition of air, fire-damp, and black-damp? Under what conditions may a small amount of explosive gas render a mine exceedingly dangerous? State what you would do if these conditions existed?
- 12 3. If you were called upon to lead the rescue work after an explosion, what are the principal points to which you would direct your attention so as to carry out the work as safely as possible?
- 8 4. If 15,000 cubic feet of air per minute flow along a road 6 feet high and 10 feet wide, what quantity would you expect to find in a roadway of similar length, but 6 feet high and 7 feet wide? (Pressure the same in each case.)
- 9 5. How would you ventilate a large and deep sinking shaft?

EXAMINATION

EXAMINATION FOR FIRST-CLASS CERTIFICATES OF COMPETENCY—27TH, 28TH, AND 29TH JANUARY, 1897.
 Technical College, Newcastle. First Day—Afternoon: 2 p.m. to 5 p.m.

Marks. *Coal Mines Regulation Act, 1896.*

What are the requirements of the Act regarding—

- 7 1. Duties and responsibilities of certificated managers?
 7 2. Ventilation?
 7 3. Withdrawal of workmen in cases of danger?

NOTE.—Candidates are not required to give word for word from the Act, but are expected to give the gist, and, if possible, the number of each section and subsection containing the information asked for.

Winning and Working of Coal and Shale.

- 10 1. What size of shaft would you sink in order to wind 1,000 tons of coal per day of eight hours from a depth of 1,000 ft.? Give approximate size of cages, ropes, chains, &c., and describe generally the shaft-fittings.
 10 2. Give sketches, both in plan and section, showing how you would lay out a shaft-bottom for the output mentioned in the previous question, giving width and number of tram-roads.
 13 3. Sketch and describe the longwall method of working, showing the course of ventilation and timbering of working-face.
 8 4. Explain how you would erect an important air-door. Suppose the dimensions were 6 ft. by 4 ft., what would be the pressure thereon if a water-gauge read $2\frac{1}{10}$ in.? What do you understand by this pressure?
 8 5. What are the benefits derived from the mode of working known as "following the whole up with the broken"? Would this kind of work suit in all cases; if not, why?

Machinery, Boilers, Pumps, &c.

- 11 1. How many boilers, and what kind, would you provide for an engine winding 1,000 tons of coal per day of eight hours from a depth of 1,000 ft.? Enumerate the fittings of a Lancashire boiler, and give pressure of steam for a given thickness of plate and diameter.
 9 2. What pressure per square inch would you expect to find on a pump forcing water to a vertical height of 825 feet? If the ram be 10 inches in diameter, about what size must the steam-piston be?
 13 3. Sketch and describe the Waddle fan.
 7 4. A beam of timber, the sectional area of which is 10 in. by 14 in., is prepared as a cap-piece for securing the roof of a roadway, how would you fix it, and how much stronger would it be one way than another?

EXAMINATION FOR FIRST-CLASS CERTIFICATES OF COMPETENCY—27TH, 28TH, AND 29TH JANUARY, 1897.
 Technical College, Newcastle. Second Day—Morning: 9:30 a.m. to 12:30 p.m.

Marks. *Arithmetic.*

- 6 1. How many tubs of stone are got out of a stone-drift 200 yards long, 8 feet wide, and 6 feet high, each tub carrying $12\frac{1}{2}$ cwt., and the S.G. of stone being twice that of water?
 6 2. A district of pillars measures 32 chains by 24 chains. How many tons of coal are contained if the seam be 6 feet high and 60 per cent. of the coal has been won? One cubic yard = 18 cwt.
 7 3. What would be the pressure in lb. per square inch on 6-yard pillars underlying 320 feet of strata, assuming that 8-yard bords have been wrought, and that the pressure is 1 lb. per square inch per foot of depth?

Geology.

- 7 1. What are the characteristics of (a) a good steam-coal, (b) a good gas-making coal? Give the approximate composition of each.
 7 2. Trace the gradation between bituminous, semi-bituminous, and anthracitic coal. What forces have operated in changing a bituminous coal into an anthracite?
 7 3. If in driving a level the coal is thrown out by a fault, which shows no definite indication of its being an upthrow or a downthrow, how would you proceed to search for the seam? Take the No. 6 (Borehole) seam as an example.

Surveying.

- 5 1. After surveying and chaining over undulating ground, what must be done before starting to plot? Show how it is done.
 7 2. What methods have been adopted to connect the surface and underground surveys, assuming you have only one shaft available for the purpose?
 5 3. What percentage of coal is left in pillars where bords 6 yards wide and headings 3 yards wide have been driven, the pillars being 30 yards long and 12 yards wide?

Ventilation and Mine Gases.

- 12 1. In a single heading, ventilated by brick brattice, a fall takes place, breaking the brattice and fouling with explosive gas 100 yards of the heading beyond the fall. Explain by a sketch how, after removing the fall, you would restore the ventilation, assuming that the strata were broken to a great height.
 11 2. What are the gases generated by spontaneous combustion in coal-mines. Give the composition and describe fully the properties and peculiarities of each gas.
 7 3. A fan 30 feet in diameter is running at 40 revolutions per minute, and producing 100,000 cubic feet of air. Find the theoretical water-gauge, the H.P. in the air, and the I.H.P. of the engine, assuming the percentage of useful effect is 62.

EXAMINATION FOR FIRST-CLASS CERTIFICATES OF COMPETENCY—27TH, 28TH, AND 29TH JANUARY, 1897.
 Technical College, Newcastle. Second Day—Afternoon: 2 p.m. to 5 p.m.

Marks. *Coal Mines Regulation Act, 1896.*

What does the Act require regarding—

- 6 1. Approaching old workings?
 8 2. The construction and use of safety-lamps?
 5 3. Employment of inexperienced men as coal getters?

NOTE.—Candidates are not required to give word for word from the Act, but are expected to give the gist, and, if possible, the number, of each section and subsection containing the information asked for.

Winning and Working of Coal and Shale.

- 10 1. A sinking shaft 15 feet in diameter, before reaching hard rock, must pass through (say) 100 feet of soft and jointy strata which must ultimately be walled: When and how would you do it?
 10 2. Assuming average conditions as regards strata, &c., what number of sinkers per shift would you employ in a shaft 13 feet in diameter? If the shaft be wet, what explosives would you use, and how would you fire them?
 14 3. Explain by the aid of sketches how you would proceed to repair the sides of a furnace shaft, assuming that the ventilation must not be materially retarded.
 8 4. Suppose there are two seams dipping south 1 in 9 and separated by 200 feet of strata, how would you proceed to win and work both at the same time, and so that the produce could be drawn from the bottom of one shaft?
 9 5. What is the principal danger to be guarded against in the extraction of small pillars overlaid by a hard and thick roof of sandstone? (The depth is about 200 feet, and the adjacent bords are twice the width of pillars.)

Machinery,

Machinery, Boilers, &c.

- 13 1. Give a brief description of a pit top arrangement for dealing with 1,000 tons of coal in eight hours with a minimum amount of manual labour.
- 10 2. What, in your opinion, is the best method of signalling in shafts and on engine planes?
- 8 3. With a mean pressure of 40 lb. per square inch., and a piston speed of 200 feet per minute, what size of cylinder is required to give 70 I.H.P.?
- 9 4. What direct weight would be required on a safety valve 4 inches in diameter to give a pressure of 80 lb. per square inch.?

EXAMINATION FOR SECOND-CLASS CERTIFICATES OF COMPETENCY—27TH, 28TH, AND 29TH JANUARY, 1897.

Technical College, Newcastle. First Day—Morning: 9:30 a.m. to 12:30 p.m.

Marks.

Arithmetic.

- 5 1. If 240 tons of coal are hewn at 2s. 2d. per ton, 425 at 2s. 6d., and 300 at 2s. 7½d., what amount of money is paid for the total, and what is the average hewing rate?
- 6 2. If the wheeling of 800 tons of coal, in tubs carrying 12 cwt., amounts to £8 6s. 8d., what must be the scorage rate to amount to the same sum?

Winning and Working of Coal and Shale.

- 6 1. Enumerate the rules you consider necessary to control and regulate the sinking of a shaft.
- 6 2. What do you understand by the panel system of working coal? What are the advantages claimed for this system in a fiery mine?
- 6 3. Assuming a fairly good roof and clean seam, explain how you could apply a modification of the longwall system to the extraction of pillars. Make a sketch showing this, and how the face is timbered and secured.
- 8 4. Make a sketch and give dimensions of a large air-crossing.
- 8 5. Show by sketches how you would timber and secure a roadway the roof of which has broken away from a point 8 or 10 feet above the coal. Assume the seam to be giving off explosive gas.
- 6 6. With endless-rope haulage up a grade of 1 in 6, what precaution would you take to guard against accidents by slipping of clips, breaking of rope, &c.?

EXAMINATION FOR SECOND-CLASS CERTIFICATE OF COMPETENCY—27TH, 28TH, AND 29TH JANUARY, 1897.

Technical College, Newcastle. First Day—Afternoon: 2 p.m. to 5 p.m.

Marks.

Coal Mines Regulation Act, 1896.

What does the Act require as regards—

- 7 1. Inspection of working-places?
- 6 2. Refuge-holes on engine-planes and horse-roads?
- 6 3. Timbering?

NOTE.—Candidates are not required to give word for word from the Act, but are expected to give the gist, and if possible the number of each section and subsection containing the information asked for.

Ventilation and Mine Gases.

- 6 1. If the sectional area of an airway be reduced one-half, how does it affect the quantity of air passing? If there be 10,000 cubic feet per minute before the reduction, how much will pass afterwards?
- 6 2. If an accident happened during working-hours to a very important air-door, what would you do, assuming the mine to be constantly giving off gas? What provision could be made, generally, to minimise the consequences of such an accident?
- 6 3. What quantity of air passes in a shaft 15 feet in diameter, the velocity being 425 feet per minute?
- 6 4. Make a sketch of four or five bords showing how you would conduct a current of air to the face of each.
- 5 5. In a moderately fiery seam where shot-firing is permitted only after the miners leave the mine, how would you instruct the shot-firer to proceed with his work?

EXAMINATION OF SECOND-CLASS CERTIFICATES OF COMPETENCY—27TH, 28TH, AND 29TH JANUARY, 1897.

Technical College, Newcastle. Second Day—Morning: 9:30 a.m. to 12:30 p.m.

Marks.

Arithmetic.

- 7 1. Divide £20 10s. 4d. among six men and three boys, each boy to have half of the sum given to each man.
- 6 2. How many bricks would it take to build a stopping 10 feet wide, 6 feet high, and 9 inches thick?

Winning and Working of Coal and Shale.

- 5 1. What are the duties of an Under Manager and a Deputy in a mine which gives off fire-damp freely?
- 6 2. What consequences are likely to arise from a blown-out shot? How would you guard against such an occurrence?
- 8 3. Show by sketches how you would fix chocks, props, and holing sprags in a seam with an inclination of one in four.
- 8 4. Sketch and describe a water-gauge and a regulator. If the latter be necessary in bord and pillar working, where would you fix it, and why?
- 7 5. Suppose a series of working-bords are approaching old workings containing noxious gas or water, what would you do? Explain fully the precautions you would take.
- 6 6. How is it water cannot be siphoned beyond a given height? What is that height, and what conditions must always be observed when fixing a siphon?

EXAMINATION FOR SECOND-CLASS CERTIFICATE OF COMPETENCY—27TH, 28TH, AND 29TH JANUARY, 1897.

Technical College, Newcastle. Second Day—Afternoon: 2 p.m. to 5 p.m.

Marks.

Coal Mines Regulation Act, 1896.

What does the Act require regarding—

- 5 1. Employment of boys?
- 8 2. Fencing off abandoned workings.

Ventilation and Mine Gases.

- 8 1. What is the composition of the gases met with in coal-mines? Give in detail all you know of the properties and dangerous character of each gas.
- 5 2. How is it that a furnace produces a current of air through the workings of a mine? Compare its action with that of a fan, and state which you prefer.
- 5 3. What is a dumb drift? Sketch and explain its advantages.
- 6 4. On entering abandoned workings situated on the rise side of a district your light is extinguished. What conclusion would you come to regarding the atmosphere you were in?
- 5 5. What is the principle of the safety-lamp?
- 6 6. In working longwall to the rise in a fiery seam, which part of a district would you keep in advance, having regard to the efficient ventilation of the face?

EXAMINATION.

EXAMINATION FOR FIRST-CLASS CERTIFICATE OF COMPETENCY—10TH, 11TH, AND 12TH MARCH, 1897.

Technical College, Ultimo, Sydney. First Day—Morning: 9:30 a.m. to 12:30 p.m.

Marks.

Arithmetic.

- 8 1. The headings of a new colliery are driven 7 feet high and 9 feet wide, their aggregate length being 2,000 yards, when a feeder of water is liberated which inundates the workings and rises 21 feet up the shaft, which is 14 feet in diameter: What is the quantity of water in the mine in—(1) tons? (2) gallons?
- 6 2. How many tons of coal are contained in a pillar 35 yards long, 8 yards wide, and 7 feet high, S.G. being 1.33? What would be the percentage of loss in tons, if in winning it you extracted 435 cubic yards?

Geology.

- 6 1. Give instances of dolerite intrusions. State their effect on our coal-seams.
- 5 2. Is geology of any service to a colliery manager? If so, what?

Surveying.

- 6 1. A survey has been made from A to B with a chain which on testing proved to be 2 inches over standard length—N. 50° E. 10 chains, S. 35° E. 5 chains, 90° E. 7 chains, N. 75° E. 15 chains: What would be the direction that you would lay out a straight tunnel from A and from B to meet? And what would be the length of line from A to B?
- 6 2. Detail the adjustments of the transit theodolite in the order in which you would make them.
- 6 3. Running a straight line for alignment of tunnel over steep ground, you come to a hill over which you can only get a short sight of 40 links in the line of tunnel: What means would you take to ensure your line being straight?

Ventilation and Mine Gases.

- 6 1. If, with a ventilating pressure of 3 lb. per square foot, you set in circulation 25,000 cubic feet of air per minute through an airway 6 ft. x 7 ft., what pressure would be required to produce double the quantity, other circumstances to remain the same?
- 10 2. Sketch the safest and best method of ventilating a mine, showing how you would lay out your workings so as to ensure the least damage in case of an explosion. (You may assume the extreme end of the workings to be not more than $\frac{1}{2}$ mile from the shaft.)
- 10 3. State the precautions you would take when putting in a furnace to prevent the surrounding strata taking fire. Illustrate your statement by sketches.
- 12 4. Give some of the leading features of some of the best ventilating fans, also their useful effect.
- 10 5. In a fiery mine, what lamps would you use—(1) for workmen? (2) for officials?—giving a description of each?

EXAMINATION FOR FIRST-CLASS CERTIFICATE OF COMPETENCY—10TH, 11TH, AND 12TH MARCH, 1897.

Technical College, Ultimo, Sydney. First Day—Afternoon: 2 p.m. to 5 p.m.

Marks.

Coal Mines Regulation Act.

What are the requirements of the Act regarding—

- 8 1. Payment of persons employed in mines by weight?
- 6 2. Prohibition of single shafts?
- 6 3. Inspection of machinery?

Winning and Working of Coal and Shale.

- 10 1. What would be your first operation if you were directed to open a seam of coal:—
(i) Where outcrop is exposed?
(ii) Where outcrop does not come to surface?
In determining the site of your winning, to which would you give the greater weight—circumstances favouring surface arrangements, or circumstances favouring underground arrangements?
- 10 2. The direction of a full dip of a seam, dipping 1 in 3, is S. 35° E.: In what direction would you have to drive tunnels from each side of your down-cast shaft so as to rise 1 in 150?
- 10 3. A seam of coal 5 feet thick is dipping S. 45° E. 1 in 40, and the property is bounded by the following lines:—Commencing at N.E. corner, bounded on the north by line W. 80 chains; on the west by a line S. 160 chains; on the south by a line E. 80 chains; and on the east by line N. 160 chains: How would you open out and develop this property, the outcrop and outlet to market being on the northern boundary?
- 10 4. Describe the method of sinking and walling, and how a shaft in course of sinking is kept circular and vertical; and state if in sinking you met with a strong blower of gas, what steps you would take to make the shaft in a fit state for working?
- 10 5. Give your opinion as to the best method of sinking through a quick-sand. Should you favour tubbing, describe the method of putting it in, and say what thickness of metal you would use in a shaft 16 feet diameter, head of water 156 feet; also, what the effect of gas behind tubbing is, and how you would guard against it.

Machinery and Boilers.

- 10 1. Sketch and describe the detaching hook you would use, and its action.
- 10 2. State the various cage conductors used in winding shafts. Give sketch showing method of fixing those you prefer to use.
- 10 3. A road 1,500 yards long rises in-by 1 in 15: Which is the most economical system of getting out the coal in this case? Sketch the appliances you would fix, give the weight of rails you would lay, and state the size of rope you would use to get out 600 tons in 8 hours.
- 8 4. Show, by sketch, how you would fix a return wheel for the tail rope.

EXAMINATION FOR FIRST-CLASS CERTIFICATE OF COMPETENCY—10TH, 11TH, AND 12TH MARCH, 1897.

Technical College, Ultimo, Sydney. Second Day—Morning: 9:30 a.m. to 12:30 p.m.

Marks.

Arithmetic.

- 6 1. How many tons of coal are contained in 5 acres, if the seam is 8 ft. 6 in. thick with 9-inch band of dirt running through it? The seam has a slope of 1 in 5, specific gravity of coal being 1.28.
- 6 2. Find square root of 10125.716 to three places of decimals, and of .10125716 to four places of decimals.
- 6 3. What would be the income from £10,000 invested in 2 $\frac{3}{4}$ per cent. Consols at 102? What would be the gain or loss by transferring to 2 $\frac{1}{2}$ per cent. at 97?

Geology.

- 8 1. Were all rocks formed at one period of time? If not, name some of the recent periods as they apply to New South Wales, as well as the oldest rocks that have hitherto been determined here.
- 8 2. What is meant by the terms:—Amorphous, hade, dip, synclinal, outlier, siliceous, argillaceous, concretionary?
- 5 3. Detail, in the order of their occurrence, the seams found in—
(i) The Newcastle District.
(ii) The Southern District.
(iii) The Western District.

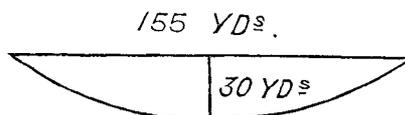
NOTE.—Either (i), (ii), or (iii) may be attempted, but not more than one of them.

Surveying

Marks.

Surveying.

- 6 1. You have to make a new winning of a seam of coal on a property which has been partly worked. You are supplied with a tracing of old workings, upon which is shown two shafts half a mile apart connected with the old workings. How would you proceed to prepare your working plan in order to indicate thereon the proper position of the old workings?
- 6 2. You are driving two headings bearing due south and separated by a pillar of coal 2 chains wide. You wish to connect them by a cross-cut at two points 175 yards from each other measured on the meridian. What is the length of the cross-cut?
- 6 3. What is the diameter of the circle of which this is the segment?

*Ventilation and Mine Gases.*

- 12 1. Give the constituents and chemical symbol of—
Light carburetted hydrogen ;
Carbonic acid ;
Carbonic oxide ;
Sulphuretted hydrogen.
- 10 2. What are the gases evolved by explosion of—
(I) Gunpowder ?
(II) Dynamite ?
(III) Fire-damp ?
- 10 3. You are conducting the exploration of a mine which has been idle. The fan has not been working, and fire-damp is standing in the downcast shaft. How would you proceed ?

EXAMINATION FOR FIRST-CLASS CERTIFICATE OF COMPETENCY—10TH, 11TH, AND 12TH MARCH, 1897.
Technical College, Ultimo, Sydney. Second Day—Afternoon : 2 p.m. to 5 p.m.

Marks.

Coal Mines Regulation Act, 1896

What are the requirements of the Act regarding :—

- 5 1. Overwinding ?
6 2. (I) Boiler Fittings? (II) Fencing machinery ?
9 3. Use of Explosives below ground ?

Winning and Working of Coal and Shale.

- 10 1. Give a sketch of a shaft in which winding and pumping is carried on with cages, guide-ropes, &c., and, say, two columns of delivery pipes.
- 10 2. If your seam is highly inclined would you make any difference in the size of your shaft-pillars to the rise and dip? If so, on which side of the shaft would you leave the larger one?
- 10 3. Give a few practical remarks on the important question of timbering, and show by sketches :—
(I) How a bord should be timbered ?
(II) How coal should be spragged during the process of holing ?
(III) How a roadway 9 feet wide should be supported ?
(IV) How a wood chock should be built ?
- 10 4. What is your opinion with respect to coal-dust, does it form an important element in colliery explosions ; if so, in what way ?
- 10 5. If you were working a seam subject to sudden outbursts of gas, what precautions would you take in your leading headings to guard against such outbursts ?

Machinery, Boilers, &c.

- 10 1. Sketch in plan and section the arrangement of a sinking pit top, 16 feet in diameter, to comply with the Coal Mines Regulation Act, 1896 ?
- 10 2. A Lancashire boiler is 35 feet long, 7 feet diameter, and $\frac{1}{2}$ inch Lowmoor iron. What is the greatest pressure of steam that you would allow it to work at? Show your rule for determining this?
- 10 3. Describe the arrangement you would recommend for dealing with an output of 700 tons of coal per day, so as to market a clean coal; the seam being 6 feet high, and having three dirt bands in it, each of which averages 2 inches in thickness.
- 12 4. Explain Davy's differential gear as applied to pumps placed under ground. What are its advantages.

EXAMINATION FOR SECOND-CLASS CERTIFICATE OF COMPETENCY—10TH, 11TH, AND 12TH MARCH, 1897.

Technical College, Ultimo, Sydney. First Day—Morning : 9:30 a.m. to 12:30 p.m.

Marks.

Arithmetic.

- 5 1. You have a circular air-way 4 feet in diameter : What is its area? Give the side of a square air-way three times the above area.
- 7 2. If your wages bill is £1,590 for an output of 7,500 tons of coal, and your timber, stores, &c., amounted to $7\frac{1}{2}$ per cent. of the wages account, what would be the cost per ton?

Winning and Working of Coal and Shale.

- 5 1. If you were working a thin seam of coal, how high would you make your travelling roads and horse roads? And why?
- 6 2. You have levels in process of driving : Describe how you would ventilate them, and how you would fix up brattice-cloth.
- 8 3. Is the longwall system of working advantageous? If so, under what conditions? In a seam 4 feet thick, what width of packwalls are necessary at a depth of 600 feet?
- 8 4. How would you timber and pack your working places, when there is not sufficient material to pack the roof tight along the face?
- 8 5. If you were working a fiery mine, what precaution would you take to guard against an explosion?
- 6 6. What is the benefit of splitting the air? And say whether, in your opinion, any one method of ventilation is applicable to all mines.

EXAMINATION

EXAMINATION FOR SECOND-CLASS CERTIFICATE OF COMPETENCY—10TH, 11TH, AND 12TH MARCH, 1897.

Technical College, Ultimo, Sydney. First Day—Afternoon : 2 p.m. to 5 p.m.

Marks. *Coal Mines Regulation Act, 1896.*

- What does the Act require as regards—
- 5 1. Dimensions of travelling road?
 - 5 2. Securing of roof and sides?
 - 8 3. Periodical inspection on behalf of workmen?

Ventilation and Mine Gases.

- 5 1. What means, other than the anemometer, would you use to measure the quantity of air passing?
- 6 2. Sketch and describe the use of an air crossing. How does it enable you to reduce the number of doors in a mine? Also, state how you would take the air to the face of a bord or other working place.
- 5 3. You are driving a pair of headings on the level, one pair on the dip, and another pair on the rise; all are the same distance from the shaft: Which would be the most easily ventilated? And why?
- 5 4. A mine employs 200 men, 40 boys, and 35 horses in a shift; no inflammable gas is given off: How many cubic feet of air per minute would you supply?
- 6 5. The same number of men, boys, and horses as in previous question are employed in a mine giving off 3,000 cubic feet of light carburetted hydrogen per minute: How much air would you supply?

EXAMINATION FOR SECOND-CLASS CERTIFICATE OF COMPETENCY—10TH, 11TH, AND 12TH MARCH, 1897.

Technical College, Ultimo, Sydney. Second Day—Morning: 9:30 a.m. to 12:30 p.m.

Marks. *Arithmetic.*

- 7 1. What is the value of 1,025 tons 2 cwt. 3 qr. 17 lb. at 5s. 11d. per ton? What would be the price per ton if an 11% increase were charged? And how many tons, &c., would require to be sold to produce the same amount of money?
- 5 2. Express 5 cwt. 1 qr. 15 lb. in decimals of 1 ton of 2,240 lb. to four places of decimals.

Winning and Working of Coal and Shale.

- 8 1. If an explosion occurred at your mine while your pit was working, blocking the downcast shaft, and your return air passed over the furnace, what immediate steps would you take to get the men out of the mine?
- 3 2. If in driving a heading in the coal you met with a fault leaning back at the roof, where would you search for the coal?
- 9 3. Make sketches showing all parts of a self-acting incline in a seam inclined 1 in 12. Give gradients of the bank-head and bank-foot.
- 5 4. What gradients would you consider advisable on a horse-road, so that the haulage could be done most economically?
- 6 5. Sketch the best known method of spragging the coal to protect the workmen while holing, when the coal is worked longwall.
- 8 6. If you were in charge of a sinking shaft and had a walling crib to send down and lay, describe how you would perform the operations.

EXAMINATION FOR SECOND-CLASS CERTIFICATE OF COMPETENCY—10TH, 11TH, AND 12TH MARCH, 1897.

Technical College, Ultimo, Sydney. Second Day—Afternoon : 2 p.m. to 5 p.m.

Marks. *Coal Mines Regulation Act, 1896.*

- What does the Act require as regards—
- 8 1. Signalling and man-holes for travelling planes worked by machinery and animal power?
 - 6 2. Option of using downcast shaft?

Ventilation and Mine Gases.

- 5 1. What is the maximum and minimum rate per minute air should travel at in working places?
- 6 2. What are the causes of vitiation of air in coal-mines?
- 7 3. Of what material would you build main stoppings, and of what thickness? Give a sketch showing the form in which you would build stoppings alongside main roads where the sides are of friable coal; showing dimensions.
- 7 4. Describe how you would construct a main separation door. Give a sketch showing the frame, and how you would hang the door with relation to the direction of the air current.
- 6 5. Describe a box-door; the materials used; and the way to set it.
- 6 6. An air-course is 8 ft. x 7 ft. and 700 yards long. What pressure will be required to force 16,800 cubic feet per minute along it?

MINES temporarily abandoned.

Name of Colliery.	Where Situated.	Date of Notice of Abandonment.	Remarks.
Denton Park	Singleton	1897. 6 March	
Morgan's	Newcastle Pasturage Reserve	31 March	
Quarry	Waratah	2 June	
Wallarah C. Tunnel	Catherine Hill Bay	28 "	
South Wallsend	Lake Macquarie	23 July	
Anvil Creek	Singleton	14 September	
Burwood Extended	Newcastle	23 January	
Mason's Colliery	Lambton, Newcastle	2 February	Lots 410 and 411.
Meredith's	" "	8 "	
Surprise	" "	20 April	No. 933. Owing to an influx of water.
Bundanoon	Bundanoon	5 August	

LIST of Exemptions granted during the year 1897.

Date when Granted.	Name of Mine.	Description of Exemption.
1897.		
1 January	Northumberland, Newcastle	From payment by weight. Expires 1st April, 1898.
1 March	Australian Kerosene Oil and Mineral Company's Mines at Katoomba, Joadja, and Capertee.	From provisions as to dimensions of communication between two shafts or outlets.
8 October	Morris's Colliery, Lambton	From provisions as to shafts or outlets, exempted until further notice.

COMPARISON OF IMPERIAL AND COLONIAL COAL-MINE ACTS.

As most of the coal-mine managers in the Colony, and many of the officials and miners, are conversant with the regulations of the Imperial Coal Mines Regulation Act, 1887, and seeing that the enactment in force in this Colony is constructed upon the latter as a basis, I have thought it advisable to point out how far the two differ, and the following is an account of the same.

1. *Certificated Managers and Under-managers.*

In this Colony, in the case of a mine in which not more than twenty persons are employed, it is not necessary to employ a manager provided with a certificate (see sub-section II, section 2) as it is sufficient for the manager to hold a permit from an inspector, such permit remaining in force for twelve months, which may be renewed at the option of the inspector.

In the United Kingdom a mine in which not more than thirty persons are employed below ground, may be exempt from having a manager, unless the inspector of the district notifies in writing that it should be under the control of a manager.

Certificates of service as managers may be granted in this Colony by the Minister under section 8 to every person who satisfies him either that before the commencement of this Act he was acting, and has since that date acted, or that he has at any time within five years before the commencement of this Act, for a period of not less than twelve months, acted in the capacity of an inspector or of a manager of a mine, or such part of a mine, as can under this Act be made a separate mine for the purposes of this Act. It must, however, be proved that during the twelve months there has been an average of not less than thirty miners employed below ground, under the control of the applicant for the said certificate—this is the same for under-managers.

Certificates of competency or of service granted under the Imperial Act are accepted as equivalent in all respects to a similar certificate granted under our Act, as also any others which may be approved by the examiners.

2. *Inspection.*

Our Act stipulates that every inspector shall hold a first-class certificate of competency or service, as provided in regard to managers, which condition is not attached to the Imperial Act. It has been argued strongly by mining engineers in England that inspectors should have held a manager's position for at least five years before being allowed to act as inspector.

The powers of inspectors are precisely the same under the two Acts, and are embraced under the following four heads:—

- (I.) To make such examination and inquiry as may be necessary to ascertain whether the provisions of this Act relating to matters above ground or below ground are complied with in the case of any mine.
- (II.) To enter, inspect, and examine any mine, and every part thereof, at all reasonable times by day and night, but so as not to impede or obstruct the working of the mine.
- (III.) To examine into and make inquiry respecting the state and condition of any mine, or any part thereof, and the ventilation of the mine, and the sufficiency of the special rules for the time being in force in the mine, and all matters and things connected with or relating to the safety of the persons employed in or about the mine, or any mine contiguous thereto, or the care and treatment of the horses and other animals used in the mine.
- (IV.) To exercise such other powers as may be necessary for carrying this Act into effect.

Though an inspector may consider that workmen are in danger, he has no power under the Act in force here to withdraw workmen from a mine. To give them this power might possibly at some future time involve the Government in unnecessary responsibility and financial loss.

If the inspector, however, finds any defect or dangerous practice (see section 20) in connection with any mine, he may give notice in writing to the owner, agent, or manager to have the same remedied or discontinued. If the owner, agent, or manager objects to remedy the matter complained of in the notice, he may within ten days after the receipt of the notice, send his objections in writing to the Minister, after which the matter has to be determined by arbitration in the manner provided by section 25 of the Act.

In general rule 7 is explained the law with reference to the withdrawal of workmen in case of danger, this power being in the hands of "the person for the time being in charge of the mine," and this may be either the manager, under-manager, or deputy. The rule is as follows:—"If at any time it is found by the person for the time being in charge of the mine, or any part thereof, that by reason of inflammable gases prevailing in the mine, or any part thereof, or of any cause whatever, the mine or that part is dangerous, every workman shall be withdrawn from the mine or part so found dangerous, and a competent person appointed for the purpose shall inspect the mine or part so found dangerous, and if the danger arises from inflammable gas, shall inspect the mine or part with a locked safety-lamp; and in every case shall make a true report of the condition of the mine or part; and a workman shall not, except in so far as is necessary for inquiring into the cause of danger or for the removal thereof, or for exploration, be readmitted into the mine, or part so found dangerous, until the same is stated by the person appointed as aforesaid not to be dangerous. Every such report shall be recorded in a book which shall be kept at the mine for the purpose, and shall be signed by the person who made the inspection."

The duties of withdrawal and inspection under this rule in ordinary circumstances will devolve upon the deputy, as he is generally the person in charge of the mine, or a part thereof, although in important or dangerous cases, it should be performed by the manager or under-manager, and does not come within the province of the duties devolving upon the inspector of mines.

After the fall of roof which took place in the Wickham and Bullock Island Colliery on the 1st October last, the workmen refused to resume work until a written report had been made by the inspector, although one had been made by the deputy in charge of the district in the mine when the fall had taken place.

This request seems to have been made under a misapprehension, the workmen possibly thinking that the duty of making the abovenamed report still rests with the inspector, as in subsection 5, section 12 of the Coal Mines Act, 1876.

Having regard to opinions expressed in conversation with mining engineers and miners in this Colony, with reference to the duties and powers of inspectors under the present Act, I have thought it advisable to enter somewhat fully into this matter.

Arbitration.

Arbitration.

There are no differences of any importance under this head between the two Acts.

Coroners.

In both Acts an inspector may only examine witnesses subject to the order of the coroner.

In subsection VIII, referring to any relative of any person whose death may have been caused by an explosion or an accident with respect to which an inquest is being held, under the Imperial Act he can only examine witnesses subject to the order of the coroner, whilst under our Act he can examine witnesses, but no reservation is made of being subject to the order of the coroner.

4. Returns, Plans, Notices, and Abandonment.

Returns by Owner, Agent, or Manager of Mine.—This is the same in both Acts.

Plan of Mine to be kept at Office.—The following words in subsection (r), section 28, of our Act, do not appear in the Imperial Act:—"And in addition to the above-named plan there shall also be provided a tracing of a surface-plan on the same scale, showing thereon all streets, roads, buildings, creeks, rivers, bays, swamps, navigable waters, and limits of any tidal waters within the said boundary."

Subsections (v) and (vi) of our Act are not included in the Imperial Act, and are as follows:—

"(v) Every copy as aforesaid shall be deposited in the principal office of the Department of Mines and Agriculture, and, except as evidence in a Court, no copy thereof shall be furnished, nor information in relation thereto given; but if, on the complaint of any owner or lessee of the surface, or the accredited officer of any municipality, that his or their rights or interests may be affected by the working of the mine, the Minister thinks fit so to direct, the inspector shall furnish a tracing of such part of the workings as are situated under the surface in respect of which complaint has been made.

"(vi) If any officer shall furnish any copy, tracing, or information, or shall allow any person to inspect any such plan or tracing, unless directed by the Minister as aforesaid, he shall be guilty of an offence against this Act."

Notice to be given of Accidents in Mines.—This is the same in both Acts.

Notice to be given of Opening and Abandonment of Mine.—The only difference under this head is that in subsection (iv), which requires notice to be sent to the inspector of the district of any change in the name of the mine, owner, agent, or manager, &c. In the Imperial Act two months are allowed, but only one month in our Act.

Fencing in case of Abandoned Mine.—This is the same in both Acts.

Plan of Abandoned Mine or Seam to be sent to Minister.—This is the same in both Acts.

Employment of Boys and Females.—In this Colony the Act stipulates that no female shall be employed in or about a mine, whilst according to the Imperial Act they may work on the surface, but not underground.

The limit of age of first employment of boys about a mine here is 14 years, whilst under the Imperial Act the age is 12 years.

Boys may not be employed here for more than nine hours for the first five days of the week, six hours on one Saturday, and eight hours on the next Saturday; whilst under the Imperial Act the regulation is that they shall not be employed for more than fifty-four hours in any one week, nor more than ten hours in one day. One hour for meals is allowed under our Act, whilst nothing is stated in the Imperial Act about this.

Wages.—The two Acts under this head are practically the same, the principal difference being that here power is given to any Justice or Clerk of Petty Sessions to summon an owner or agent of a coal-mine for recovery of wages due for labour done in the mine, provided that the sum does not exceed £50.

Single Shafts.—The only differences are that the local enactment requires that shafts shall not be sunk nearer to one another than 50 yards, whilst under the Imperial Act this distance is fixed at 15 yards; and the communication between the two shafts in the Colony shall not be less than 4 feet wide and 6 feet high, whilst the Imperial Act requires that it shall not be less than 4 feet wide and 3 feet high.

Division of mine into parts.—This is the same in both Acts.

Part II.—Rules.

9. General Rules.

Ventilation of Mines. Rule 1.—Whilst the provisions of the two Acts are similar in so far as they require that an adequate amount of ventilation shall be constantly produced, &c., in every mine, our Act, however, is more explicit, and further provides that "not less than 100 cubic feet per minute for each man, boy, and horse employed in the mine, which air (in that proportion but with as much more as the inspector shall direct) shall sweep along the airways and be forced as far as the face of and into each and every working place, where man, boy, or horse, is engaged or passing, main return airways only excepted."

That part of the second paragraph of rule 1 of our Act requiring the division of the air into splits of not more than seventy men in each, (except where longwall is worked) and that the intake air shall travel free from all stagnant water, stables, and old workings, does not appear in the Imperial Act.

Rules 2 and 3 are the same in both Acts—these refer to dumb drifts, and the position of a fan so as to insure its being uninjured by an explosion.

Stations and inspection of condition as to ventilation, &c., Rule 4.—The only difference is that in subsection (i) paragraph 4 of the rule under our Act are the words "the condition of the ventilation," which are not included in this rule in the Imperial Act.

Inspection of machinery, &c. Rule 5.—This is the same in both Acts.

Fencing of entrances.—This is the same in both Acts.

Withdrawal of workmen in case of danger.—This is the same in both Acts.

Use of safety-lamps in certain places.—This is the same in both Acts.

Construction of safety-lamps.—This is the same in both Acts.

Examination

Examination of safety-lamps and lamp stations.—These are the same in both Acts.

Use of explosives below ground.—The only differences in rule 12 under this head are as follows:—At the latter end of subsection (d) of our Act are the following words “nor in any mine or part of a mine in which safety-lamps are required by this Act to be used shall dry coal or coal-dust be used for tamping,” which in the Imperial Act reads “nor shall coal or coal-dust be used for tamping.”

At the latter part of subsection (e) are the words “Provided that in cases where a fuse is used no person shall return to a place where such charge has missed fire until a period of eight hours has elapsed from the lighting of the fuse attached to such charge;” this does not appear in the Imperial Act, but is provided for in the special rules of each district.

Water and bore holes.—This is the same in both Acts.

Signalling and manholes for travelling planes worked by machinery.—Our Act stipulates that the places of refuge shall be at least 6 feet high, 3 feet wide, and 4 feet deep, whilst in the Imperial Act the size is not mentioned.

Manholes to be kept clear.

Dimensions of travelling roads.

Fencing of shafts.

Trolley over pit mouth.

Fencing of entrances to shafts.

} These are the same in both Acts.

Sinking Pit to be cleared of gas.—This clause of rule 21 does not appear in the Imperial Act.

Securing of roof and sides.—This is the same in both Acts.

Timbering.—This is the same in both Acts.

Option of using Downcast shaft.—This is the same in both Acts.

Attendance of engineman.

Means of signalling for working shafts.

Overwinding.

Cover overhead.

Chains.

Prevention of rope slipping on drum.

Brake and indicator.

Fencing machinery.

Safety-valves and gauges for boilers.

Barometer.

Stretchers.

Wilful damage.

Observance of directions.

Books and copies thereof.

Periodical inspection on behalf of workmen.

Person not to be employed in coal-getting without experience.

} The rules under these heads are the same in both Acts.

Penalty for interference with office of Check Inspector or Check Weigher.—This rule is not contained in the Imperial Act.

Penalty on non-compliance with rules.—The provisions are the same in both Acts.

Special Rules.—The only difference between the two Acts under this head is that in the Colonial Act the Governor (see rule 55, page 32) may make and publish a set of special rules which shall be deemed the special rules under the Act, so long as no other special rules have been framed in that mine.

Legal Proceedings.—In subsection (ii) section 59, five pounds is substituted for two pounds in the Imperial Act, for an offence committed after notice has been given by an inspector.

Miscellaneous.—After a sum not exceeding one hundred pounds has been deposited by the person laying the complaint, that an encroachment is suspected (see rule 73), gives power for the Minister for Mines to authorise an inspector together with a mining surveyor to inspect with a view to ascertain if such encroachment has been made, and the extent of it.

There is no such provision in the Imperial Act.

NOTICES RECEIVED DURING THE YEAR 1897.

The following notices were received during the year of new mines opening out or in course of development, mines reopened, sinking pits, driving tunnels, change of ownership, &c.:—

Bellambi Colliery.—Mr. George Cater, manager, notified on 6th January that Mr. Enoch Heath has been appointed under-manager.

Mount Pleasant Colliery.—Mr. Charles S. Byrnes, general manager, notified on 7th January of having appointed Mr. Thomas Cook manager of the colliery, in lieu of Mr. P. Lahiff, deceased.

Quarry Colliery, Waratah.—Mr. Benjamin Tonks notified on 3rd March that he had commenced to work J. Ruttley's colliery at Waratah, and requests permission to act as manager.

Durham Colliery, near Redhead.—Mr. Frank Croudace notified on 29th March having started four men to get fire-coal for the engines.

Hillside Colliery, Merewether.—Mr. William Leigh, on 31st March, notified having purchased the above colliery.

South Bowenfels Mine, near Lithgow.—Mr. Frank Burton, on the 10th April, notified having commenced prospecting for coal on his selection, 220, by driving a tunnel into the outcrop to good coal 2 ft. 10 in. in thickness.

Teralba Colliery, Teralba.—Mr. Andrew Sneddon notified on the 12th April of having commenced operations at the above colliery, with a view to work same.

Wallarah Colliery, Catherine Hill Bay.—Mr. Joseph Sperring notified on the 20th April that he had begun sinking a shaft on the company's estate near the jetty, for mining purposes.

New Anvil Creek Colliery, Greta.—Mr. Benjamin Yates notified on the 7th June of having started to drive the headings.

Sydney Harbour Collieries Company, Sydney.—Mr. J. L. C. Rae notified on the 17th June that his company had begun shaft-sinking operations on their ground at Long Cove, Balmain. On the 26th June also notifies that he is the company's manager.

The Pacific Co-operative Colliery, Teralba.—The colliery manager (Mr. J. A. Neilson) notifies on the 21st June his intention to reopen a shaft on the company's property during the week, known as shaft on the "Selections."

Northern Extended Colliery, Teralba.—Mr. William Sneddon, colliery manager, notified on 21st July that he had commenced sinking a shaft for the better ventilation of the colliery.

Coalcliff Colliery, Illawarra.—Mr. E. Vickery notified on 27th July that he was the owner of Coalcliff Colliery; also that he had appointed Mr. John McGeachie colliery manager.

Electric Colliery, North Lambton.—Mr. Wm. Holmes notified on 6th August that he had just cleaned out the shaft, with the intention of getting coal.

Cardiff Colliery, Cardiff.—On 3rd September Mr. Charles Horsefield notified that he had taken possession of Cardiff Colliery from the late proprietors, Campbell and Whitton, and will start to draw coal on the 6th or 7th instant.

New Lambton Colliery.—Mr. James Ruttley notifies that on 20th September Mr. Thomas would be the responsible manager of the mine.

South Wallsend Colliery, Cardiff.—Mr. George Leishman, manager of the Commercial Bank of Australia, notified on 21st September that he had appointed Mr. Geo. Leitch manager of the South Wallsend Colliery, in place of Mr. A. Gardiner.

New Anvil Creek, Greta.—Mr. Benjamin Yates on 4th October notified that he had resumed operations on the above date.

In conclusion, I wish to express my appreciation of the cordial and valuable assistance which I have at all times received from Mr. John Dixon, senior inspector of collieries, my predecessor in office, as well as of the manner in which my other colleagues, Messrs. Rowan, Bates, and Humble, have assisted me.

I am glad to say that the colliery managers and the miners generally have shown a disposition to co-operate in such a way as to ensure the carrying out of the Coal Mines Act, 1896.

I beg to send herewith the annual reports of the inspectors Dixon, Rowan, Bates, and Humble.

I have, &c.,

A. A. ATKINSON,
Chief Inspector of Coal and Shale Mines.

The Under Secretary for Mines and Agriculture.

Senior Inspector of Collieries' Report.

Merewether, 10 January, 1898.

To the Honorable Sydney Smith, Esq., M.P.,
Secretary for Mines and Agriculture, &c., &c.,—

Sir,

In compliance with the provisions of section 21 of the Coal Mines Regulation Act, 1896, 60 Vic., No. 12, I have the honor to submit my report for the year ending 31st December, 1897. From the commencement of the year till 13th September last, when the present Chief Inspector of Coal-mines, Mr. A. A. Atkinson, took charge of the Coal-fields Branch, I carried out the whole of the duties pertaining to that office, and also endeavoured to inspect as many collieries as possible, besides investigating several accidents.

During the term embraced by this report I made 146 colliery inspections, investigated 15 accidents, and travelled about 6,700 miles (exclusive of underground travelling).

The following is a list of the collieries usually inspected by me, also number of men, &c., employed underground, quantity of air, &c. :—

1. A.A. Co.'s New Winning, near Newcastle.—About 380 men, &c., are employed in this colliery, and the total quantity of air in circulation is about 90,000 cubic feet per minute.

2. A.A. Co.'s No. 2 Colliery.—About 97 men, &c., are employed in this colliery. Quantity of air per minute, about 40,000 cubic feet. The whole of the miners are engaged in pillar extraction, and the utmost care appears to be exercised by officials and workmen in the matter of safety to all concerned.

3. Newcastle Coal Co.'s A Pit Colliery.—About 300 men, &c., are employed in this colliery, and the total quantity of air in circulation is about 88,000 cubic feet per minute.

4. Newcastle Coal Co.'s B Pit Colliery.—About 309 men, &c., are employed in this colliery, and about 95,000 cubic feet of air per minute is circulated through the mine.

5. Burwood.—In this colliery about 286 men, &c., are employed, and the total quantity of air in circulation is about 52,000 cubic feet per minute.

6. Waratah.—About 190 men, &c., are employed in this colliery, and the total quantity of air in circulation is about 55,000 cubic feet per minute. Extensive improvements and alterations have recently been made at this colliery. A new iron pit-head frame has been erected at the A pit, which is the main winding shaft. This is a massive and graceful lattice iron frame 75 feet high to centre of pulleys; is strong and well braced, and is no doubt the heaviest frame of the kind in this district, or in the colonies. The pulleys are 15 feet diameter, and are set on springs (the bearings rest on strong springs) to save any jerk when the cage is being lifted from the pit bottom. The frame is set on concrete and brick foundations. Both winding ropes are fitted with detaching gear to prevent overwinding. The whole erection was completed while the mine was working and without the loss of an hour. An "Excelsior Schiele" fan for ventilating purposes has also been erected in connection with the B pit, upcast shaft. And at this shaft a new timber pit-head frame has been put up, and all requisite machinery is in readiness for raising or lowering persons when required. The endless-rope system of haulage will shortly be in use underground. When this is completed, the Waratah may truly be called a "modern colliery."

7. New Lambton.—About 29 men, &c. are at present employed in this colliery. The total quantity of air per minute is about 8,000 cubic feet.

8. Hillside, Merewether.—In this mine the No. 2 or Burwood coal-seam is worked; 6 men, &c., are employed below ground; and the total quantity of air is about 5,000 cubic feet per minute.

9. Ebbw Vale.—The No. 2 or Burwood seam is also worked in this colliery; about 23 men, &c., are employed below ground; and the total quantity of air is about 12,000 cubic feet per minute.

10. Durham.—Only two persons are employed at this colliery at the present time, keeping the mine free from accumulation of water.

11. Burwood Extended.—Operations ceased at this colliery in January, 1897, and the water has filled the whole of the workings, and also risen in both shafts. Both shafts are properly secured at surface.

12. Shortland's.—This is a new winning to work the No. 2 Burwood seam near New Lambton Colliery. An adit is being driven, but only one person is employed.

13. Side Colliery, Newcastle Pasturage Reserve, Waratah, 2 men employed.

14. Quarry Colliery, Newcastle Pasturage Reserve, Waratah, 2 men employed.

15. Wright's Colliery, Newcastle Pasturage Reserve, Waratah, 1 man employed.

16. Morris' Colliery, Newcastle Pasturage Reserve, Lambton, 2 men employed.

17. Bayley's Reward, private property, Lambton, 2 men employed.

18. Jenkins' Colliery, private property, Lambton, 1 man employed.

19. Mawk's Colliery, private property, Lambton, 1 man employed.

20. Rosehill Colliery, private property, North Lambton, 1 man employed.

21. Electric Colliery, private property, North Lambton, 1 man employed.

22. Sunnyside Colliery, Lambton.—Work at present suspended.

23. Ray's Colliery, Lambton, totally abandoned.

24. Meredith's Colliery, Lambton, totally abandoned.

25. Mason's Colliery, Newcastle Pasturage Reserve, Waratah, abandoned.

26. Kayuga Colliery, near Muswellbrook.—Only one person employed below ground.

27. Centenary Colliery, Curlewis.—About 36 men, &c. are employed below ground, and the total quantity of air is about 8,000 cubic feet per minute.

28. Gunnedah Colliery, Gunnedah.—About 14 men, &c. are employed in this mine, and supplied with about 4,000 cubic feet of air per minute.

29. Morley Colliery, near Gunnedah.—All work suspended at present.

30. Gladstone Colliery, near Gunnedah.—No work being done at present.

31. Harbour Collieries, Sydney.—A great deal of work has been done in connection with this new winning during the year in the matter of levelling the surface, and otherwise preparing for sinking operations. Two large shafts have been commenced, and first-class machinery is now being erected, and it is expected that very shortly sinking will be again resumed at both shafts. Everything about the colliery appears to be of the most substantial character, and reflects the utmost credit on manager, contractor, and all concerned in this great undertaking.

In concluding my report on the various collieries inspected by me during the past year, I may be allowed to state that, so far as I have been able to judge, I have found both managers, officials, and workmen actuated by a desire to fully carry out the provisions of the Coal Mines Regulation Act, so far as is reasonably practicable.

Accidents.

Of the 15 accidents investigated by me during the term under notice, 3 were fatal and 12 non-fatal.

Eight of the non-fatal accidents were caused by falls of coal, and resulted in injuries more or less severe. One was caused by being crushed between a skip and a roadside prop; 1 by machinery at the surface; 1 by falling down steps near a boiler-shed; and 1 by powder burns by the ignition of blasting-powder in a tin bottle.

Of the 3 fatal accidents, 1 was caused by a fall of stone (roof); 1 by a fall of coal direct; and 1 by a blow from a prop which was forced out by a fall of coal.

I attended the inquest in connection with each fatal accident, and fully agree with the verdict of accidental death, as returned by the jury in each case. Each accident was reported on at the time.

I have, &c.,

JOHN DIXON, F.G.S.

Senior Inspector of Collieries.

Colliery Inspector Humble's Annual Report for 1897.

Hamilton, 3rd January, 1898.

The Hon. Sydney Smith, Secretary for Mines and Agriculture,
Department of Mines, Sydney,—

Sir,

I have the honor to report that, in pursuance of section 21 of the Coal Mines Regulation Act, 1896, I have exercised the duties of an Inspector of Collieries in the Northern District during the twelve months ending 31st December, 1897.

In doing so, I have inspected the collieries set out in the following table, which shows also the approximate number of men and boys employed underground, and the number of days inspection given to each colliery.

No.	Name of Colliery.	Approximate number of men and boys underground.	Number of days inspection given to each.
1	Stockton	239	31
2	Hetton	370	25
3	Wickham and Bullock Island	278	24
4	Co-operative	230	16
5	Wallsend No. 2	66	6
6	Maryland.....	38	10
7	Brown's No. 4.....	234	7
8	Brown's No. 2.....	91	6
9	Duckenfield.....	260	13
10	Seaham	200	8
11	West Wallsend	265	12
12	Killingworth	6	3*
13	Dudley	180	3†
14	Wallahah	165	6
15	Morrisett	6	6
16	South Hetton	2	4
17	Thornley	10	5
18	Bloomfield	10	5
19	Marshall's	1	5
20	Louis Vale	2	3
21	Ingance	3	5
		2,776	203

* New mine opening out. Idle the first half of the year. † Also inspected on four days by Mr. Dixon.

During the year I have investigated 7 fatal, and 39 non-fatal accidents. Three of the latter were, however, not serious, and are therefore not included in the tabulated list of accidents given to the Chief Inspector for his report.

I am sorry to say that this number of accidents is abnormally large. There appears to be no defect in the Act or special rules to which can be traced any of these accidents, neither is there any change for the worse in the physical conditions of the seams which would render coal-getting more hazardous than before; in fact, the opposite is the case, there being decided improvement in many of the conditions under which our miners now work.

I have not been able to trace any accident to defective plant or dangerous working place.

The majority of accidents have been caused by falls of coal and stone, the former being due to insufficient sprags when holing the coal.

The miscellaneous underground accidents have been caused principally by boys falling off or getting into tubs while in motion.

The great majority of accidents by falls of coal (nearly 50 per cent. of the whole) is not at all creditable to either miner or official.

Many of them are directly due to extreme carelessness and lack of ordinary forethought.

Men working day by day at the face evidently get so accustomed to the danger attending the holing of coal that they no longer look upon it as such, or, if they do, they treat it with contempt. Only by strict attention to, and enforcement of, the provisions of the Act and special rules relating to this matter can many of them be averted. It is not sufficient that officials provide timber and sprags; they must see that such are used as the requirements of the regulations and circumstances of each case demand. This is plainly their duty, and I have impressed it upon them very frequently of late.

At the time of last inspection each mine was in fair order and condition.

I am glad to be able to record that in addition to the many excellent fans at work in the district Messrs. J. and A. Brown, of Minmi, have during the year started a Schiele fan to ventilate their No. 2 and No. 4 Collieries, thereby doubling the volume of air in the workings; and that the Stockton Coal Company is now pushing forward the erection of a Waddle fan to supersede the very moderate furnace they have relied on for many years.

During the excessive hot weather, when the surface temperature often exceeds 100° F., and approximates closely to the temperature of the column of air in many furnace-shafts, the efficiency of the furnace is seriously impaired. It is to be hoped that when opening out and developing future mines of reasonable size or magnitude coal-owners will provide fans capable of producing large and constant currents of air in the mine instead of attempting to ventilate by furnace, which is, as I have said, of little use in hot weather, and, unless well built and provided with a dumb drift, sometimes a source of great danger in a coal-mine.

The new Act is, in my opinion, working very well and smoothly, and has not, I venture to say, been the bugbear, financially, that some predicted it would be. The provision in general rule 1, requiring ventilation to be carried to the face of each working-place, is of great benefit to the men, and in a lesser, but still important, degree to the owners also.

In

In obedience to directions from you, I proceeded against the owner of Marshall's Colliery for non-fencing the top of a shaft, and against a miner of W. B. Island Colliery for "carrying a naked light on his cap while handling explosives." In both cases the defendants were fined.

The Seaham Colliery Manager reported to me that in November last he proceeded against one of his miners on a double charge of passing a fence and using abusive and obscene language when remonstrated with. The Co-operative Colliery Manager also reports that in December last he proceeded against two of his miners on charges of passing a fence and in "charging a hole for blasting while carrying a naked light on his head." The three defendants all pleaded guilty, and a fine was imposed in each of the four cases.

In addition to the work of inspection I have been engaged in Coal-fields Office, writing reports, &c., on sixty days; in Courts of Inquiry, District and Police Courts, and at Inquests, on twenty-seven days.

In the latter part of the year 1896 the Board for appointing Examiners did me the honor of appointing me one of the examiners for certificates of competency under the Coal Mines Act. You were pleased to approve of the appointment, and I have therefore during the year been engaged in this work on nineteen days.

In the performance of my duties during the year I have travelled (exclusive of the distance underground) 3,790 miles by train, tram, boat, coach, and saddle; and I have had six days' sick leave.

I have, &c.,

WILLIAM HUMBLE, F.G.S.,
Inspector of Collieries.

Colliery Inspector Bates' Report.

Newcastle, 11 January, 1898.

To the Honorable Sydney Smith, Esq., M.P.,
Minister for Mines and Agriculture, &c., &c., &c.—

Sir,

Pursuant to section 21 of the Coal Mines Regulation Act, 1896, I do myself the honor to submit my first yearly report on the coal and shale mines inspected by me during the year ending 31 December, 1897.

In the year under notice I have inspected at frequent intervals twenty collieries in the Northern District of the Colony, also assisting Mr. Inspector Dixon with the following mines under his supervision, during the period he was carrying out the duties of Examiner of Coal Fields, viz., A.A. Co.'s No. 2 Pit and New Winning, Newcastle Co.'s A. and B. pits, South Waratah, New Lambton, Ebbw Vale, Gunnedah, Centenary and Kyuga Collieries, and have inspected in Mr. Inspector Rowan's absence the following coal and shale mines in the Southern and Western Districts of the Colony, viz., Mount Kembla, Osborne-Wallsend, Mount Pleasant, Corrimal, South Bulli, Bellambi, Bulli, South Clifton, Coal Cliff, Metropolitan, Collins, Vale of Clwydd, Lithgow Valley, Oakey Park, Vale, Zig Zag, Hermitage, Eskbank, and Retort Coal Mines, also Joadja Creek, Hartley Vale and Genowlan Shale Mines.

I have investigated 21 accidents in the Northern District during the year under notice. Of these, 4 proved fatal, 2 by falls of coal, 1 by riding on skips, and 1 by premature explosion of shot.

In the non-fatal accidents 4 occurred by falls of coal, 2 by skips, 1 by premature explosion of shot, and 1 by pick falling in shaft.

Surface Accidents.—Two non-fatal accidents occurred whilst shunting waggons, and 1 by escape of steam from locomotive boiler.

The remaining 6 accidents were not of a serious nature.

In the discharge of the duties above enumerated, I have made 177 inspections, dealt with 21 accidents, and travelled 6,045 miles to and from the various coal and shale mines, in addition to a very considerable amount of walking underground.

COLLIERIES.

Wallsend Colliery, Main Tunnel Workings.—There are 457 men and boys employed underground in this portion of Wallsend Colliery. The ventilation is produced by means of a Guibal fan and also a furnace, and the quantity circulating through the workings is about 100,000 cubic feet per minute.

Lambton Colliery.—About 176 men and boys are employed underground in this mine, and the quantity of air circulating through the workings is 26,000 cubic feet per minute.

Elemore Vale Colliery, Wallsend.—Work at this colliery has been very intermittent during the year. At the present time there are 29 men and boys employed underground. The quantity of air in circulation is 8,000 cubic feet per minute; steps are being taken to increase this amount.

Northumberland Colliery, Fassifern.—There are 14 men and boys employed in this mine, and supplied with 5,000 cubic feet of air per minute.

Pacific Colliery, Teralba.—There are 149 men and boys employed in this mine and the quantity of air circulating is about 28,000 cubic feet per minute. A communication has recently been made between the workings and an air-shaft sunk some years ago, which will materially assist the ventilation.

Northern Extended Colliery, Teralba.—Sixty-nine men and boys are employed in this mine, and supplied with 14,000 cubic feet of air per minute.

Teralba Colliery, Teralba.—Work was resumed at this sinking shaft during the year, for the purpose of taking out the water; after a few weeks operations all work was temporarily suspended.

South Wallsend Colliery, Cardiff.—Very little work has been done at this colliery during the year. On the last inspection 10 men were employed. The ventilation was in fair condition.

Cardiff Colliery, Cardiff.—There are 28 men usually employed in this mine. The ventilation was in a satisfactory condition.

Hartley Hill Colliery, Cardiff.—This mine was opened several years ago and abandoned. Work was resumed during the year, and 4 men employed; but at the present time all work is temporarily suspended.

East

East Greta Colliery, West Maitland.—A large amount of opening-out work has been done at this mine during the year. The coal is drawn from two tunnels, driven the full dip of the seam, which is 45 degrees. The mine is worked with two shifts of men, the total number of men and boys underground being 185, and the quantity of air circulating, 18,000 cubic feet per minute.

South Greta Colliery, Farley.—There are about 37 men and boys employed in this mine, and supplied with 6,000 cubic feet of air per minute.

Denton Park Colliery, West Maitland.—This colliery was at work up to March last, since then all work has been suspended.

New Anvil Creek Colliery, Greta.—Very little has been done at this mine during the year, the chief work being the driving of prospecting headings. Three men are employed in the mine, and the ventilation is satisfactory.

Greta Colliery, Greta.—At the present time there are about 153 men and boys employed underground in this mine. The ventilation is produced by a Guibal fan, and the quantity of air circulating through the workings is 31,000 cubic feet per minute.

New Park Colliery, Singleton.—At this colliery there are two hauling tunnels. Twenty-eight men and boys are employed underground, and supplied with about 14,000 cubic feet of air per minute.

Ellesmere Colliery, Singleton.—No coal has been drawn at this mine during the year, but the roads, &c., have been kept in repair for resumption of work.

Elliott's Colliery, Singleton.—Two men are employed in this mine. The ventilation is satisfactory.

Rosedale Colliery, Singleton.—There are 5 men employed in this mine. At the last inspection the workings and ventilation were in a satisfactory condition.

Oakvale Colliery, Singleton.—One man is occasionally employed in this mine, the ventilation of which was satisfactory at last inspection.

Dulwich Colliery, Singleton.—There are usually 9 men employed in this mine, and supplied with a satisfactory amount of ventilation.

I have, &c.,

THOS. L. BATES, F.G.S.,
Inspector of Collieries.

Colliery Inspector Rowan's Report.

Wollongong, 10 January, 1898.

To the Hon. Sydney Smith, Esq., M.P., &c., &c., Mines Department, Sydney,—

Sir,

In accordance with section 21 of the Coal Mines Act, 1896, I have the honor to present my first annual report of inspections for the collieries and shale mines in the Southern and Western Districts.

I am pleased to report that generally speaking the conditions imposed by the new Coal Mines Act are being fairly well carried out. At first there were a few misunderstandings as to the legal interpretations of certain sections, but with the exception of that referring to the weighing of the coal this has passed away, and the Act is becoming better understood and carried out.

During the year there were 2 fatal accidents, 1 occurring on the branch railway of the Osborne-Wallsend Coal Company when the shunter was killed by being crushed between the waggon buffers when in the act of coupling them. The other fatal accident happened at the Vale of Clwydd Colliery whereby the hanger-on (onsetter) at the shaft bottom lost his life. He was caught by the descending cage whilst attempting to cross the pit bottom. There were 7 non-fatal accidents which are included in the Chief Inspector's report.

During the month of December a large Waddle fan was started at the South Bulli Colliery, producing about 50,000 cubic feet of air per minute more than the quantity obtained from the two furnaces. This is a very satisfactory result, and it is to be hoped that the other colliery owners using furnaces will adopt fans in preference, especially in those cases where the prevailing winds have such adverse effects upon the ventilation.

I have made 180 underground inspections, besides having attended to official duties in connection with formation of special rules, applications for the right to mine, and other matters.

In consequence of illness I was unable to carry on my official duties for two months.

I have, &c.,

JAMES ROWAN,
Inspector of Collieries.

GEOLOGICAL SURVEY OF NEW SOUTH WALES.

Geological Survey Branch, Department of Mines and Agriculture,

Sir,

Sydney, 14 January, 1898.

I have the honor to submit my Report on the Geological Survey Branch for the year 1897:—

Owing to the fact that the geological surveyors have been required to perform a considerable amount of work in connection with the distribution of the Prospecting Vote, the time available for original work in the way of mapping the geological formations of the Colony has been very much restricted, and in fact, very little has been done in this direction during the year. I take this opportunity of urging that such arrangements be made as will allow of the officers of this branch devoting their time and energies to the important work for which they are specially qualified.

A large number of papers having reference to the contemplated cancellation or reduction of gold-field reserves, has been dealt with. These have necessitated the inspection of large areas which the Lands Department proposed to alienate or lease for settlement purposes.

During the earlier months of the year much of my time was taken up with the work of the "Royal Commission on the Spontaneous Combustion of Coal Cargoes," of which I was a member. The Commission issued its report on the 28th April, 1897, making a number of recommendations in regard to the manner of loading ships with coal, and thus minimising the dangers to which such ships are liable in warm latitudes. The Commission was subsequently reappointed to carry out some further experiments and to watch the results of their recommendations.

During the greater part of the months of February and March I was engaged in investigating and mapping the geology of the Gunnedah Coal-field; a considerable amount of work still requires to be done before a report on this district can be completed, and I propose to do this at intervals in my spare time.

During the period just mentioned, and again in the month of June, I assisted Professor David in a geological examination of a considerable area of the Moonbi ranges near Tamworth. It is important that the section of country between Tamworth and Gunnedah should be carefully studied with the object of establishing the relationship between our Palæozoic formations. The Devonian and the Carboniferous formations appear to be both represented in this tract of country, and when the relationship has been defined the key to the geology of a large portion of the Colony will be provided, and will facilitate the subsequent work of the geological surveyors.

Towards the end of the month of July I made an inspection of the Wentworth Mines at Lucknow, and gave evidence before the District Court at Bathurst in an alleged case of ore-stealing.

During the early part of the month of September, in company with Mr. J. W. Boulton, Superintendent of Public Watering Places, I visited Grenfell, and inspected some springs which were supposed to indicate the presence of artesian water. I found that the country consisted of granitic and Palæozoic rocks, and that the springs were merely of local origin. I then accompanied Mr. Boulton to Finlay, near Berrigan, where we selected a site for an experimental bore. This portion of Riverina is underlain by pleistocene, and possibly by tertiary rocks; and although the occurrence of artesian water in the district is by no means certain, I am of opinion that the experiment of a trial bore is warranted, more particularly as the experience gained by the Hay bore points to the probability of, at any rate, a sub-artesian supply being obtained.

On the 19th of September I left Sydney for Western Australia, and did not return until the 14th November. The object of this trip was primarily to examine the famous telluride deposits of Kalgoorlie, as it was considered probable that similar deposits may occur in New South Wales, and may have been overlooked by prospectors owing to their not being familiar with the rare but extremely valuable tellurides of gold, and to the fact that these ores can be easily mistaken for iron pyrites by the uninitiated. A description of the geology of those portions of Western Australia visited by me forms an appendix to this report, and, by the courtesy of the Hon. the Minister for Mines, I was permitted to read it before the Australasian Association for the Advancement of Science, at the Sydney Session, early in January, 1898.

Altogether I was occupied in field work for 120 days during the year.

I have recently received from Germany a book entitled "Australasian Gold-fields," by Carl Schmeisser, Chief Inspector of Mines at Clausthal. Attached to the book are a number of plates, and in several of these Mr. Schmeisser has reproduced mining and geological sections from the Annual Reports of the Department of Mines, N.S.W.; probably through an oversight, however, he has omitted to acknowledge the source from which he obtained them. In thus borrowing the work of some of our officers (*e.g.*, Geological Surveyors W. Anderson, J. E. Carne, and G. A. Stonier), there can, I think, be no doubt that Mr. Schmeisser has paid us, though perhaps unconsciously, a high compliment.

Mr. Geological Surveyor J. E. Carne was engaged for four months during the earlier part of the year in continuing the prospecting operations along the Victorian Border, between Cape Howe and the head of the Murray. The result of this exploration, so far as the discovery of payable mineral deposits is concerned, was entirely unsuccessful.

Mr. Carne also reported on the stability of the natural foundations of the proposed retaining-wall for the dam at Denman, in connection with the scheme for prevention of floods in the Hunter River.

Mr. Carne acted for me, in my official capacity, during my absence in Western Australia.

In addition to dealing with a number of applications for aid from the Prospecting Vote, Mr. Carne furnished the following reports:—

1. Notes on the Geology and Mineral Resources of the south-east border of New South Wales between Cape Howe and the head of the Murray.
2. Report on the "Luck of Roaring Camp" Reef, near Brown's Camp, Victorian Border.
3. Notes on the Geology and Auriferous Deposits of the Wolumla Gold-field.
4. Notes on the occurrence of Tungsten Ores in New South Wales; with a register of localities.
5. Notes on Chrome iron ore, its mode of occurrence, mining, dressing, uses, and value, with a register of New South Wales occurrences.

Mr.

Mr. Geological Surveyor J. B. Jaquet's time during the year has been mainly occupied in connection with applications for aid from the Prospecting Vote.

He has, in addition, dealt with a number of papers having reference to the proposed cancellation or modification of Gold-field reserves. He also furnished the following reports:—

1. On a supposed diamantiferous volcanic pipe at Bingara.
2. On Rigby's Reef, near Major's Creek.
3. On the Bundarra Copper Lode.
4. On the newly discovered deep tin lead, near Elsmore.
5. On a further examination of the ironstone deposit, near Seaham.
6. On the cobaltiferous deposit at Port Macquarie.

Early in the month of March, an addition was made to the staff of this Branch by the appointment of Mr. J. A. Watt, M.A., B.Sc., as third Geological Surveyor. Mr. Watt had a very successful career at the Sydney University, and subsequently was awarded a travelling science scholarship, tenable for two years. He came to us with a high recommendation from Professor David, under whom he received his geological training, and he has already given evidence of his qualifications, which enables me to report that the appointment is a very satisfactory one for the Department.

Mr. Watt was at first employed in conjunction with Mr. Jaquet in making a thorough examination of the Captain's Flat Mine, and these two gentlemen then furnished a joint report on the prospects of the district.

Mr. Watt in addition to dealing with a large number of applications for aid from the Prospecting Vote, supplied the following reports:—

1. On a supposed diamantiferous deposit on portion 292, Parish of Upper Tarlo, County of Argyle.
2. On the iron ore deposits of Carlo's Gap.
3. On Winter's Reef, Parish of Barratta, County of Cunningham.
4. On the Nanima Creek and Gooda Gold-fields.

Mr. E. C. Whittell, Field Assistant, has been occupied during the whole year in reporting upon applications for aid from the Prospecting Vote.

Mr. G. W. Card, Mineralogist and Curator of the Geological Museum, has examined and named a large number of rocks and minerals; he has given much information to the public through the inquiry office, and he has registered and sent on for assay 5,131 samples, besides conducting the correspondence in connection with the returns.

He has also completed in a very satisfactory manner, the registration, arrangement, and labelling of the rock and mineral collections of the Museum.

The Geological Museum now contains a very creditable collection, and will prove of great value to students and other persons who may be in search of reliable information in regard to the geology and mineral resources of this Colony.

Mr. W. S. Dun, Assistant Palæontologist and Librarian, besides attending to the Library (which entails much routine work), and determining a large number of fossils collected by the members of the field-staff, has edited Parts 2, 3, and 4 of Vol. V of the Geological Survey Records. He has also made a translation from the French of Professor de Koninck's work on the Palæozoic fossils of New South Wales which will shortly be issued as a memoir. Mr. Dun has also taken a considerable part in the Museum work, having classified and labelled the palæontological collection, besides preparing a systematic catalogue of the types and figured specimens in the collection of the Geological Survey.

Mr. O. Trickett, L.S., has made a number of surveys and plans of the limestone caves which will prove of considerable use to visitors. It is proposed to publish these plans in the Annual Report, as the want of some such information about these beautiful works of nature has long been felt by the public.

In addition to conducting all the correspondence with the caretakers, and submitting recommendations in regard to proposed improvements at the Caves, Mr. Trickett has performed all the geological charting in connection with this Branch. I would also like to specially allude to the important work performed by this officer in the preparation of an index to the known localities of the various mineral occurrences in the Colony. This index was commenced several years ago, and is continually being added to as new discoveries are recorded. It is of very great value for reference purposes, and will be largely used by the Geological Surveyors in preparing reports on our mineral resources.

The reports of the various officers of the staff are appended hereto, and it affords me much pleasure to be able to add, in conclusion, that these gentlemen have all, without exception, worked well and harmoniously.

I have, &c.,

EDWARD F. PITTMAN,

Government Geologist.

The Under Secretary for Mines and Agriculture.

APPENDIX I.

REPORT on Country between Gunnedah and Mullally.

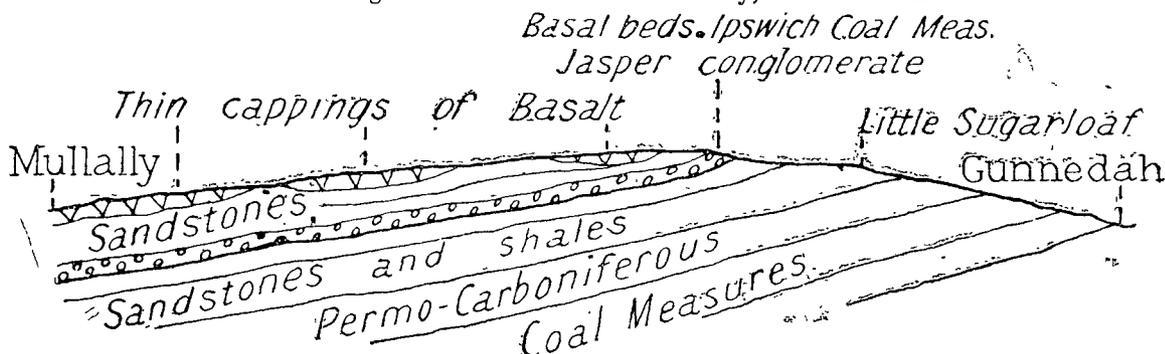
Geological Survey Branch, Mines Department, Sydney, 9 March, 1897.

I HAVE the honor to report that I have made a geological examination of the road between Gunnedah and Mullally, with the object of ascertaining whether artesian water is likely to be obtained at the latter place.

The Permo-Carboniferous coal measures extend from Gunnedah in a westerly and south-westerly direction to the Black Jack Range. In this range several fine seams of coal occur, and one of them is being extensively worked in several collieries. Above these Permo-Carboniferous beds (which are probably the equivalents of the Newcastle or upper coal measures) a coarse conglomerate, formed largely of jasper pebbles, forms a noticeable feature near the top of the range. The conglomerate is overlaid by thick bedded greyish white sandstones, and these again are covered by coarsely crystalline basalt, which forms the cap of the Black Jack Range. Although I was unable to obtain any distinctive fossils in these upper rocks, I am strongly of opinion that they are the basal beds of the Ipswich coal measures or Triassic artesian water basin. These rocks are first seen on the Mullally Road, about 9 miles from Gunnedah, and they extend thence, with a westerly or south-westerly dip, continuously to Mullally, being covered, however, for a considerable distance by basalt, which is probably of no great thickness except on the hilltops.

I am of opinion that a bore in the neighbourhood of Mullally might be expected to strike artesian water at a comparatively shallow depth; but I would not advise the putting down of a bore at any great distance to the north-east of Mullally, as the eastern margin of the triassic basin is apparently about 9 miles south-west of Gunnedah.

Section along road from Gunnedah to Mullally, about 24 miles.



Mullally is about 200 feet higher than Gunnedah, and the highest point along the road between the two places is 470 feet above Gunnedah.

The Under Secretary for Mines and Agriculture.

E. F. PITTMAN,
Government Geologist.

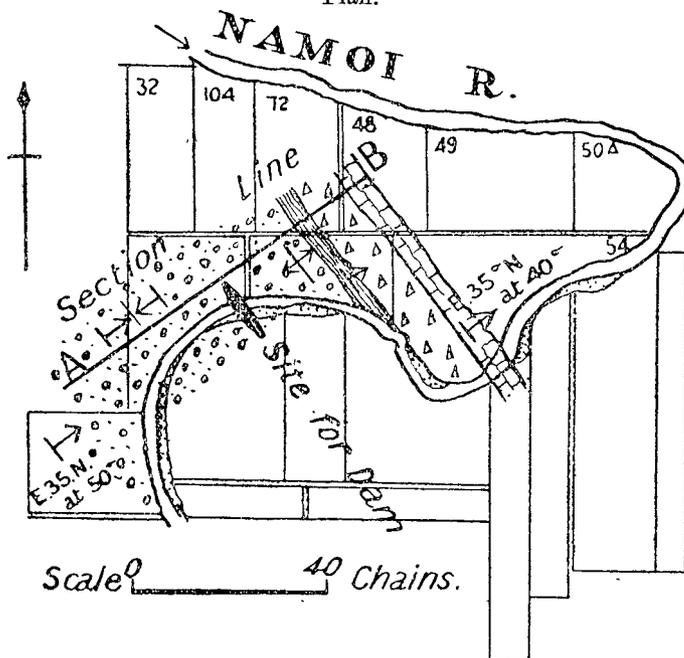
APPENDIX 2.

REPORT on proposed Reservoir on the Namoi River.

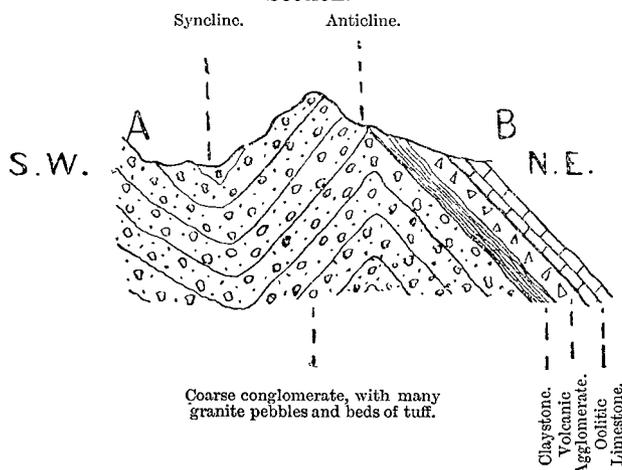
Geological Survey Branch, Department of Mines and Agriculture, 23 August, 1897.

THE site of the proposed reservoir on the Namoi River (Parish of Keepit, County of Darling) was inspected by me in March last; and, on the accompanying diagrams, I have given a geological sketch, plan, and section, showing the formations at the point where, I understand, it is proposed to construct the retaining-wall. The rocks are all of Palæozoic (Carboniferous) age.

Plan.



Section.



About

About a quarter of a mile north-east of the proposed retaining-wall is a bed of blue oolitic limestone, which shows only about 10 feet wide at the outcrop, though it will probably be somewhat wider below. I have traced this bed for a distance of 15 or 20 miles, and, in places, it is fully 100 feet thick.

Towards the south-west the limestone is succeeded by beds of volcanic agglomerate or tuff, claystones, and coarse conglomerates, containing large granite pebbles up to 15 inches in diameter. The general strike of the sediments is N. 35 W., and the dip of the limestones, volcanic agglomerates, and claystones, as well as the adjoining beds of the conglomerate, is north-easterly (E. 35 N.), at an angle of about 40. Farther to the south-west, however, the conglomerates, as may be seen in the section, are thrown into folds, an anticline being succeeded by a syncline or trough.

I am of opinion that the fissures alluded to by Mr. McKinny are caused by the influence of the atmosphere, and are not likely to extend far below the surface. Judging by the age and general character of the rocks, I am of opinion that they would be impervious to water, except, perhaps, to some extent, along their bedding planes.

If it be possible therefore to construct the retaining-wall to the north-east of the anticlinal fold, shown on the accompanying section, I do not think there would be any reason to fear leakage from the reservoir.

The Under Secretary for Mines and Agriculture.

E. F. PITTMAN,

Government Geologist.

Report on an application by the Grenfell Progress Committee for an Artesian Bore, near some Springs on the Grenfell-Cowra Road.

15 September, 1897.

I HAVE made an inspection of the springs referred to by the Grenfell Progress Committee, and also of the country between Cowra and Grenfell. The prevailing rocks are palæozoic quartzites and slates, with intrusive rocks such as granites and diorites. There is no evidence of the existence of any extension in this direction of the artesian basin, and I am of opinion that the springs are purely local, and that no good purpose would be served by putting down a bore anywhere between Cowra and Grenfell.

E. F. PITTMAN,

The Under Secretary for Mines and Agriculture.

Government Geologist.

Sir, Geological Survey Branch, Department of Mines and Agriculture, 6 Jan., 1898.

I have the honor to hand you herewith a report on the geology and mineral deposits of those portions of Western Australia recently visited by me, and to inform you that I have brought back and placed in the Geological Museum a number of typical specimens of the telluride ores of Kalgoorlie. These ores, which contain a large proportion of gold in combination with tellurium, differ so much in appearance from the auriferous ores hitherto worked in the eastern colonies that their exhibition here should be of benefit in the way of enabling mining men to recognise similar ores which may possibly have been overlooked in this Colony. Ores of telluride of gold having now been proved to exist in Western Australia and Queensland, there is no reason why they should not be found to occur in some of the mines of New South Wales.

I have, &c.,

EDWARD F. PITTMAN,

The Under Secretary for Mines and Agriculture.

Government Geologist.

APPENDIX 3.

Notes on the Geology and Mineral Deposits of portions of Western Australia, by E. F. Pittman, A.R.S.M., Government Geologist of New South Wales.

[Read, by permission of the Hon. the Minister for Mines, Mr. Sydney Smith, before the Australasian Association for the Advancement of Science, at the Sydney Meeting, January, 1898.]

Physiography and Geology.

THE south-western portion of Western Australia is composed mainly of an elevated table-land, the western escarpment of which is formed by the Darling Range. This table-land reaches an altitude of about 1,400 feet (at Coolgardie), and the rocks of which it is composed are chiefly granites and crystalline gneisses, with occasional belts of metamorphic schists and dykes of diorite or other hornblendic rocks.

West of the Darling Range, which is composed of the rocks just mentioned, are patches of mesozoic sediments; but the coastal district, in the centre of which the city of Perth stands, consists of undulating country, formed of a calcareous sand-rock of undoubted Æolian origin. The surface of this country is almost everywhere covered with a considerable thickness of fine loose sand, while occasionally along the shore-line, as at Fremantle and other points to the north of it, and also at Subiaco, between Fremantle and Perth, the calcareous sand-rock may be seen outcropping. It consists of a very porous rock, composed of angular grains of sand and fragments of shells loosely cemented. In places, as at Subiaco, there may be seen imbedded in the sand-rock irregular-shaped masses of limestone, evidently produced by the action of rainwater, containing carbonic acid, which has dissolved the shell fragments and redeposited the carbonate of lime in segregated masses.

There are no traces of regular bedding visible in this deposit of sand-rock, but the natural sections which occur along the coast, as at Fremantle and in several railway cuttings, exhibit very characteristic false bedding, the grains of sand having been disposed along planes which clearly represent the "angle of repose" of mounds of loose sand, and which therefore point to its wind-blown origin.

This rock has been assigned a post tertiary age by West Australian geologists, because of its containing the remains of marine shells and crustaceans which are identical with existing species. As far as I could ascertain, however, these fossil remains have not been found anywhere except along the coast, where the rocks have been exposed to the sea; and I observed that many potholes in the rock along the shore-line had been filled with recent shells, which had evidently become cemented to the sides, and now form part of a solid deposit. It is just possible, therefore, that all the fossil remains hitherto noticed may have had a similar origin, and that this Æolian deposit may really be of tertiary age.

Along the coast, in some of the points to the north of Fremantle, and also in the banks of the Swan River, the weathered rock presents a very beautiful aspect. The carbonate of lime has here been deposited through it in pipes or stalactitic forms, and the weathering has resulted in the sand-grains being removed, leaving a fantastic network of calcareous stalactites, which cross and interpenetrate in all directions, causing the cliff to assume the appearance of being covered by the most beautiful lacework.

The

The calcareous sand-rock of the coastal district has been and is being extensively used for building purposes in Perth and Fremantle, and it is also utilised as a foundation for roads, being afterwards covered with ferruginous gravel. The rock is very soft when freshly quarried, but hardens on exposure, and appears to stand well in buildings. It has also been exclusively used in the construction of the large moles or breakwaters which form such a conspicuous feature in the Fremantle Harbour improvements now being carried out under the supervision of Mr. C. Y. O'Connor, Engineer-in-Chief for Western Australia. At first sight it would appear almost incredible that such porous rock would resist the action of the waves, but experience shows that it answers the purpose admirably.

The Perth Artesian Water Supply.

The chief interest, however, which attaches to this Æolian sandstone, from a geologist's point of view, is due to the fact that it yields a fine artesian water supply. The width of this coastal strip of artesian water-bearing rocks, in an east and west direction, is about 15 miles. It reaches from the flanks of the Darling Range, near the Midland Junction railway station, to the sea; and it is believed to extend along the coast, to the north and south, for many hundred miles, forming a belt of rather low undulating country, the surface of which is composed of sand-hills.

At Guildford, 3 miles to the west of Midland Junction, a plentiful supply of water under pressure was obtained at a depth of about 400 feet, while at Perth a supply of 500,000 gallons per day was struck at a depth of about 800 feet. The source of the supply is the rain-water (averaging between 30 and 40 inches per annum) which falls upon the western slopes of the Darling Range, and which is absorbed by the sands at its base and sinks into the underlying calcareous sand-rock. As showing the extremely porous nature of this country, it may be mentioned that many creeks issue from the foot of the Darling Range, carrying strong bodies of water, which completely disappear before reaching the coast, 15 miles to the west. Quite a number of bores are now being put down for the purpose of utilising this underground water supply.

The islands off the coast, such as Rottnest, Garden Island, &c., are said to be composed of the same Æolian rock, and it is therefore evident that there must be a leakage of the artesian water into the Indian Ocean. The altitude of Perth above sea-level is 38 feet; that of Midland Junction is but 44 feet; Bellevue, 3 miles further east, is 57 feet; while Swan View, which is only 3 miles eastward of the latter place, has an altitude of 268 feet. From Swan View the Darling Range, composed of granite and gneiss, rises rapidly to a height of 1,000 feet above sea-level. There is one noticeable feature in the Perth artesian water basin, if it may be so called, wherein it differs materially from the ideal artesian basin described in text-books. It lacks the overlying impervious beds which are so often quoted as necessary for keeping the underground water in a state of pressure and preventing its escape to the surface. It is true that around Perth there are patches of clay under the sandy soil in places, but these are of local occurrence, and there do not appear to be any continuous beds which can be regarded as impermeable. In an interesting paper, read before the Royal Society of New South Wales,* Professor David exhibited an experiment which illustrated the reason why, in a one-sided artesian basin having leakage to the sea (like that of Queensland and New South Wales), the water was under sufficient pressure to rise above the surface in bores. He proved that the resistance offered by the sands and gravels through which the water was obliged to percolate before it reached the sea was sufficient to maintain the pressure necessary to force the water to the surface when bores were put down.

It appears evident that the same principle can be extended to explain why the artesian water in the Perth basin, although not covered by any continuous impermeable stratum, occurs under sufficient pressure to enable it to rise above the surface in the bores. The water in this case has to meet not only the resistance offered by the sand-grains in its passage to the sea, but also the resistance offered to its upward ascent by the overlying beds of calcareous sand-rock. In short, if sand-rock, porous though it be, offer such resistance to the lateral flow of water, it will offer even greater resistance to its vertical ascent. It appears possible, therefore, to have a complete artesian basin without any impermeable covering stratum, provided the porous intake beds outcrop at a sufficient altitude above the site of the boreholes to supply the necessary "head."

The Collie Coal-field.

I was able to make only a brief inspection of the Collie Coal-field, which is situated in a valley in the Darling Range, about 110 miles to the south of Perth, and about 30 miles to the east of the seaport of Bunbury, with which it will shortly be connected by railway. The coal-field has an altitude of about 600 feet above sea-level. Unfortunately it does not offer many facilities, in the way of natural sections, to the geologist, for it consists of undulating country, the lower portions of which are for the most part covered by sand, while the hills are capped by a deposit of tufaceous conglomerate, which is a marked surface feature of the whole of the south-west portion of the Colony, and which may, probably, be of Pleistocene age. Along the banks of the Collie River conglomerates and sandstones are visible in a few places, but there does not appear to be any continuous section which would allow the sequence of the beds to be observed.

The coal measures evidently rest in a basin the floor of which is composed of granite, and the known coal seams have been discovered either by boring or by sinking near the northern margin of the field; for their outcrop is in every case hidden by the surface accumulations of sand, &c.

A coal seam of considerable thickness (12 or 13 feet I was informed) was opened in what is known as the Government Mine, and about 500 tons of coal have been extracted by an inclined shaft or tunnel following the dip of the seam, which is more or less in a southerly direction. These workings being now full of water could not be inspected. A second seam is visible in a shaft at a depth of about 70 feet in an adjoining property. This seam consists principally of carbonaceous shale in the midst of which is a small seam of coal not thick enough to be economically worked. A number of other seams are said to have been discovered by boring, but as the only evidence supplied was the material brought up, for the most part in a fine state of division, it is probable that some of these seams may have partly consisted like the one already mentioned, of carbonaceous shale.

There

* Journal Royal Society of New South Wales, 1893, Vol. xxvii, p. 428. "Notes on Artesian Water in New South Wales and Queensland," by T. W. E. David, B.A., F.G.S., Professor of Geology, Sydney University.

There appears to have been a considerable amount of controversy as to the quality and age of the Collie coal, some authorities having asserted that it is a true Palæozoic coal, while others have contended that it is a lignite. As a matter of fact it shows no ligneous or woody structure, but has all the appearance, as well as composition and other characters, of a coal of Mesozoic age. It is lustrous, bituminous, and fairly firm when newly won, but appears to become rather friable on exposure, owing, no doubt, to the amount of water it contains. It burns well, leaving a bulky ash, which, however, is very light. Its worst features are that it contains a high percentage of water, and that it does not form a coke.

The average of a number of analyses of this coal made by Mr. B. Woodward of the Perth Museum is as follows:—

Water	...	...	...	...	...	...	...	...	...	11·60
Volatile Hydrocarbons	...	...	...	...	...	...	...	...	...	32·10
Fixed Carbon	...	...	...	...	...	...	...	...	...	51·20
Ash	...	...	...	...	...	...	...	...	...	4·35
Sulphur	...	...	...	...	...	...	...	...	...	·90

Specific Gravity, 1·30.

One of the most unsatisfactory features of this coal-field from a mining point of view is the fact that the coal measures form an artesian water basin. All the bores that were put down in the deep ground, *i.e.*, towards the dip of the measures, struck artesian water which may still be seen rising above the surface under considerable pressure. While, therefore, it may be possible to extract a fair amount of coal from near the outcrops, it is manifest that the working of these seams in the deep ground, where a large supply of water exists under pressure, would not be practicable.

The occurrence of artesian water in these coal measures is further evidence in favour of their Mesozoic age, as it has not hitherto been met with in Palæozoic coal basins.

Although shales are abundant in the spoil heaps about the mines, they are singularly barren of fossil plant remains, and after a careful search I was only able to obtain two fragments of leaves. These appeared to have somewhat the outline of *Glossopteris*, though they were too imperfect for their shape to be definitely determined. The venation showed a few examples of anastomosis, but not nearly so many as *Glossopteris*, and the midrib was not by any means well defined. The specimens were submitted to Mr. Robert Etheridge, junior, of the Australian Museum, for his opinion, and he reported as follows:—“I do not think the fossils represent leaves of a *Glossopteris*, nor am I at all sure that they belong to the allied genus *Gangamopteris*, although the midrib, or what can be seen of it has some resemblance to that of the latter. There remains then, with us, the Mesozoic genus *Sagenopteris*, and to this I suggest the fossil may possibly belong.”

It will be seen, therefore, that the evidence of the fossil plant remains (imperfect though they are) is in favour of the Mesozoic age of the Collie coal-field, and thus supports the evidence which is supplied by the character of the coal itself, and the geological peculiarities of the basin.

In the Mining Handbook of Western Australia, by H. P. Woodward, Esq., late Government Geologist, it is stated that Mr. Robert Etheridge, senior, F.R.S., of London, reported having found portions of *Glossopteris* or *Næggerathia* in a sample of coal from the Collie field; and that on this evidence he assigned a Palæozoic age to the coal. Mr. Woodward also informed me that in a subsequent report Mr. Etheridge withdrew this statement. It is possible, therefore, that the fragment seen by Mr. Etheridge, senior, may have been a small portion of *Sagenopteris* showing some net venation, and that this characteristic may have led him to the erroneous conclusion that the plant was the Palæozoic one, *Glossopteris*.

In view of the somewhat inferior quality of the Collie coal, and in view also of the difficulties in the way of economic mining caused by the occurrence of artesian water in the coal basin, it is rather surprising that so much money has been spent on this field, while other districts along the coast to the north appear to be of greater promise. As an instance of this it may be stated that in the Perth Museum there is a collection of fossils which point to the existence of Permo-Carboniferous coal measures in the Gascoyne district, and there is, therefore, good reason for expecting that prospecting there would result in the discovery of coal similar to that of Newcastle.

Coolgardie Gold-field.

Coolgardie is situated about 350 miles to the east of Perth on the table-land previously mentioned, and has an altitude of about 1,400 feet above sea level. The railway from Perth crosses the Darling Range at an altitude of 1,000 feet, and then traverses a wide area consisting chiefly of granite, with occasional belts of metamorphic schists. At the town of Coolgardie the granite and quartz porphyry are seen to junction with hornblendic rocks, and there is a considerable development of amphibolites, hornblende schists, diorites, &c. Several important lodes, such as “Bayley’s” and “The Londonderry,” occur near this line of junction. They may be described as large bodies of white quartz in which gold has been found in phenomenally rich “chutes,” which were, however, of limited dimensions, and which were separated by barren or very low grade material. At The Londonderry Mine a coarse pegmatite occurs which very much resembles that found so commonly at Broken Hill, except that it contains a yellowish green variety of mica. About 3 miles west of The Londonderry Mine a rock of similar character contains large crystals up to 6 inches in diameter, of *Lepidolite* or lithia mica, which may prove to be of commercial value.

Many of the quartz reefs in the neighbourhood of Coolgardie stand up from the surface like walls of masonry 15 or 20 feet high, having resisted the denuding action of the atmosphere better than the enclosing country rocks. As a general rule the outcrops of such reefs have not proved payable, but experience has shown that on this field, as in so many others in the eastern colonies, the gold, for the most part, occurs in “chutes.” Over capitalisation of many mines appears to have been the outcome of the assumption that these rich chutes were of unlimited dimensions. There are a fair number of reefs on the Coolgardie gold-field which have yielded consistent returns, and many others have a promising appearance. Other auriferous deposits, locally known as “formations,” occur on this field. They consist of lenticular shaped lodes, or dykes, up to 10 feet in width at the surface, which thin out as they descend, and which consist of a very decomposed kaolinised material, intersected by quartz veins. The veins carry

coarse

coarse gold, while the kaolinised lodestuff contains the precious metal in a fine state of division. It is probable that they are dykes of quartz-felspar porphyry, though I was unable to see any of the undecomposed rock, owing to the fact that the workings have not been carried to a sufficient depth. The walls consist of actinolite rock. It is probable that if these deposits were explored to greater depths they would be found to increase in width again. In one instance I saw free gold in a rock which appears to be almost entirely composed of actinolite.

The hills about Coolgardie are capped by a thickness of from 10 to 15 feet of an agglomerate or gravel consisting for the most part of angular fragments of the surrounding rocks, but also containing some waterworn pebbles. In places this deposit becomes very ferruginous and passes into limonite. It may be of later Tertiary or Pleistocene age.

The valleys between the hills have received a material derived from the denudation of these gravels, as well as from the underlying rocks and quartz-reefs, and over a considerable area they have been proved to contain rich, but, for the most part, shallow auriferous alluvials, which have been worked several times over by the method known as dry-blowing, as water is too scarce to allow of any other process.

That these valleys have had, at one time, deep outlets, is proved by the fact that at a place known as Rollo's Bore, about 2 miles east of Coolgardie, a well has been sunk for a depth of 400 feet through alluvial clays. A thin bed of lignite was penetrated near the bottom, and this contained numerous impressions of the leaves of *Eucalyptus*, the appearance of which points to the probability of the valley having been filled up in Pleistocene times. There is reason for supposing, therefore, that this country enjoyed, during comparatively recent geological times, a much greater rainfall than it receives at the present day, and which is estimated at about 5 inches per annum. Moreover, it is only reasonable to suppose that the gold derived from the denudation of the reefs must have been carried into these deep drainage channels, none of which appears to have been prospected.

A very large amount of money has been fruitlessly expended at Coolgardie in the attempt to discover artesian water by boring with a diamond drill in solid granitic rocks. This undertaking was, I understand, carried out in opposition to the advice of all the geologists who were consulted, and it is needless to add that the result was unsuccessful. The bore was abandoned after a depth of 3,000 feet had been reached.

Auriferous Cement Deposits.

About 30 miles in a northerly direction from Coolgardie a number of mines have been worked in an auriferous deposit which is locally known as "cement." It consists of a loose white or greyish-white sandstone, cemented by kaolin in greater or less proportion, and containing subangular fragments of quartz, with occasional well-rounded quartz pebbles. Near the top of the deposit is a bed of kaolin about 6 inches thick, with a half-inch band of sand. The formation, which is horizontally bedded, is overlaid by ferruginous gravel, similar to that about Coolgardie, and it occurs as a capping (having a maximum thickness of about 15 feet) to a number of low granite hills. It contains angular fragments of free gold of varying size, some of them being microscopic, but is only payable along certain fairly-defined channels. The bed rock (granite) of these channels contains numerous pot-holes, showing that the "cement" was laid down on a denuded surface. I was informed that the richest deposits of gold are not, as a rule, found in the bottom of these holes, but around their margins, which appears remarkable. Some of the cement has proved remarkably rich, containing at the rate of 80 oz. to the ton; but this is, of course, exceptional, and the auriferous channels do not exceed 30 feet in their widest parts. The cement in places has been converted (possibly by hydro-thermal action) into a vitrified rock, which has very much the appearance of the well-known Desert Sandstone (Upper Cretaceous) of Queensland and New South Wales, in which the interstices between the grains of sand have been filled with secondary silica. Several hand specimens of this rock from Western Australia, which I had an opportunity of examining in Sydney two years ago, led me to express the opinion that it was really the Desert Sandstone. After an inspection of the deposit *in situ*, however, one can have no hesitation in recognising it as an alluvial deposit resulting from the disintegration of granite. The gold has evidently been derived from the denudation of quartz-reefs, several of which occur in the vicinity. The best of these reefs has a thickness of about 18 inches, and has yielded at the rate of about 10 oz. to the ton. The angular nature of the gold can be accounted for by the fact that it has had but a short distance to travel. No fossils have been found in the "cement," and it is therefore impossible to determine its age, but it is clearly older than the ferruginous gravels which occur about Coolgardie, and may therefore be provisionally put down as late Tertiary.

Kalgoorlie Gold-field.

The township of Kalgoorlie is situated about 25 miles in a north-easterly direction from Coolgardie, and is reached by the main line of railway from Perth, a distance of 374 miles. The name, Kalgoorlie, has already become famous by reason of the extraordinarily rich auriferous deposits which occur in its neighbourhood. Gold was first discovered by a prospector named Hannan, close to the present township of Kalgoorlie, and a very considerable area of surface or shallow alluvial deposits, derived from the denudation of quartz-reefs which intersect a low ridge in the vicinity, has been worked and reworked by "dry blowers." The principal interest, however, in the Kalgoorlie, or as it is officially termed the East Coolgardie Gold-field, centres in what are commonly known as the telluride deposits. These occur at a locality named the Boulder, distant about 4 or 5 miles in a S.S.E. direction from Kalgoorlie, and they form a series of low hills, which, in fact, are a continuation of the range previously alluded to as occurring in the vicinity of Kalgoorlie township. The country to the east, west, and south of this range consists of plains, the geological formation of which is obscured by superficial deposits of sand, gravel, and travertine, and which support a vegetation consisting of low scrub and stunted *Eucalyptus* trees. Of the latter two varieties are known locally as salmon gum and gimlet gum. About 4 miles south of the Boulder is situated "Hannan's Lake," a large depression or clay pan, in which no water is to be seen, except after a heavy rainfall, which is not a frequent occurrence. A considerable supply of extremely salt water, however, is conserved in the alluvial sands and clays which form the bed of the lake, and this is pumped to the Boulder through long lines of pipes, and is utilised for mining purposes. The bed of the lake glistens with crystals of gypsum and salt, and all the water in the district (with the exception of that obtained by distillation for domestic purposes) is extremely saline; it is, nevertheless, exclusively used for both battery work and wet extraction in the cyanide plants.

The

The Boulder Hills, where the telluride deposits occur, are covered at their summits with horizontal deposits of ironstone gravel, which passes in places into compact limonite. The Great Boulder Mine, which was the first established, received its name from the occurrence of large masses of this ironstone which stand out on the top of the hill, forming part of its surface. Immediately under this deposit the hills are composed of what at first sight appear to be bluish-grey micaceous or talcose schists, and these in places are intersected by dykes of diorite and also by irregular quartz-reefs. The "schistose" rocks, though having the appearance of what is generally known amongst mining men as "country rock," were found by the earlier miners to contain free gold, which in places was extremely rich. Some of the gold was fairly coarse, but much of it presented a very deceptive appearance, and could easily be mistaken for a coating of dull yellow clay. This is now known at the mines as "mustard gold." As these auriferous rocks were followed down and as the shafts were intersected by cross-cuts, it was noticed that the unproductive country at the sides was indistinguishable in character from the lodestuff, except in the matter of its unproductiveness. In short, there was always a difficulty in determining the limits of the so-called "lodes," and this could only be done, where free gold was not visible, by calling in the assistance of the assayer.

The zone of oxidation, within which the rocks have been subjected to more or less decomposition by the action of the atmosphere and by the percolation of water from the surface, extends in these hills to a depth varying from 80 to 200 feet. Below this zone iron pyrites appears in the rocks, and this is accompanied in a number of the principal mines by tellurides of gold and silver and mercury. Tellurides were, I believe, first recognised in the mine known as Block 45, but there appears to be a dispute as to whom the credit of the discovery is due. Ores of tellurium and gold are now also known to exist in the Great Boulder, the Boulder Main Reef, Lake View Consols, Ivanhoe, Australia, Boulder Perseverance, Kalgurli, Kalgurli North, Brookman's Boulder, and Golden Horseshoe Mines. The greatest depth attained in any of the mines up to the present is a little over 300 feet, and a careful examination of the workings from the surface down to this depth, leads one to the following conclusions:—(1) That the so-called lodes are in reality intrusive dykes, and (2) that the material of the walls, or "country," is of precisely similar origin, and differs merely in the proportion of its mineral contents and the amount of alteration it has undergone.

There is a gradual transition, downwards from the talcose schistose looking rocks of the surface, to the dense bluish-green rock which is found in the lower levels, and which has the appearance, to the naked eye, of a characteristic quartz felsite. It is thus evident that the surface rocks are merely the result of the oxidation of those below, just as the free gold contained in the former is the product of the decomposition of the pyrites and telluride minerals of the latter. I may state here that I collected a number of samples of so-called "lodestuff" and "country rock" from the principal Boulder Mines, and these have been examined in thin sections under the microscope, by Mr. G. W. Card, Mineralogist to the Geological Survey. He finds (as was indeed fairly evident to the naked eye) that "the evidence obtained by examining and comparing as many slides as possible, shows that the country rocks from the different mines on the field, differing as they do in colour, structure, &c., are one and the same rock; and further, that the lodestuff itself is nothing but an extremely altered form of the same."

Mr. Card further states that "the divisional planes exhibit a silvery sheen, due to the development of secondary mica. That this rock is of igneous origin is evident from its mineralogical constitution and structure. Quartz, felspar, ilmenite, and magnetite are among the original constituents, and that characteristically igneous structure, the micropegmatitic, so common among the acid eruptives, is sometimes well shown. The green colouration is due to chlorite, which acts as a pigment when finely disseminated, as it generally is. When chlorite is absent the rock is lighter in colour."

There is abundant evidence that these rocks in the Boulder Mines have been subjected to an enormous amount of crushing, which has induced in them a highly schistose structure. This is especially noticeable in the productive portions or "lodestuffs," which are in places quite fissile or foliated. Tellurides of gold, silver, and mercury are distributed through the lodestuff in veins, splashes, and pockets, and in the offices of the mine managers some very fine specimens are to be seen, containing solid masses of tellurides sometimes nearly an inch in thickness. As these minerals contain as much as 41 per cent. of gold, the presence of a small proportion of them has the effect of imparting a high assay value to the stone. Occasionally metallic gold is seen in conjunction with tellurides, and, in one instance, a vugh in the deposit was found to enclose large masses of beautiful sponge gold, probably derived from the decomposition of tellurides.

The productive dykes, or "lodes" as they are locally termed, are frequently intersected by irregular quartz-reefs. These reefs, in which the quartz is white and crystalline, sometimes follow the strike of the dykes, at other times cut across them, and occasionally enter the walls. They are not continuous for any distance, and their width varies very considerably. They sometimes, but not always, contain free gold.

It is probable that they represent fissures, which have been formed by the contraction of the dykes when cooling, and which have subsequently been filled in by ascending solutions of silica. The dykes are also characterised by numerous ironstone veins, consisting of specular iron and limonite, which branch off from the productive portions or "lodes" into the walls. These veins are probably the source of the ironstone gravel which forms such a noticeable feature on the surface of the Boulder Hills. The joints of the lodestuff in the lower levels are frequently coated with carbonates of lime and magnesia, while in the oxidised zone, their place is taken by gypsum. Among other minerals observed in the dykes may be mentioned magnetite in fairly large crystals, iron pyrites, and arsenical pyrites. Chloride of silver is stated to have been found in considerable quantity in one of the mines near the surface. In some places kaolinisation of the felspars in the lodestuff has taken place to a considerable extent. I was informed by Mr. T. A. Rickard, State Geologist of Colorado, that vanadium mica had been recognised in some of the rocks from the Boulder, and this statement is supported by the fact that Mr. J. C. H. Mingaye, Analyst to the Department of Mines, has detected vanadium in some of the material collected by me.

The area within which the productive dykes have, so far, been proved to exist is about three quarters of a mile wide, and its length is about a mile and a quarter. Fresh discoveries, however, continue to be made at intervals, and it is possible that they may be found to extend considerably beyond these limits.

Within

Within this area quite a number of more or less parallel lodes or productive belts occur, being separated by belts of unproductive rock of similar origin. The strike of the principal productive belts varies from N. 30° W. to N. 50° W; but these are in places cut off, and sometimes faulted by other dykes, of similar material, which cross them almost at right angles.

The productive portions of the dykes are nearly vertical; but, as a general rule, they have a slight underlay to the W.S.W., while occasionally the dip changes to E.N.E. for short distances.

Well-defined walls are not seen in these deposits, but, occasionally, on one or other side of an ore body there is a fairly smooth plane, which marks the limit of the productive stone. In the Boulder Main Reef Mine, between the ore body and what may be termed the hanging wall, there is a thickness of about 6 inches of what appears to the naked eye to be a brecciated rock. Mr. Card, however, after examining a thin section of this material under the microscope, reports that "it would appear as if the breccia-like appearance were delusive, and were due to the unequal distribution of the chlorite."

In some instances drives have been continued in payable ore for a distance of nearly half a mile along a dyke. The productive belts vary considerably in width, though they are rarely less than 1 foot. From 4 feet to 6 feet is not an uncommon width, and they increase from this to as much as 35 feet or more.

In one of the principal mines the following section was exposed in a cross-cut:—

	35 feet wide.	30 feet wide.	15 feet wide.	4 feet.	14 feet wide.	
West.	Average assay value, about 2 oz.	Barren.	Average assay value, 3-4 oz.	Barren.	Average assay value, 3-4 oz.	East.

So that in a total width of 98 feet, no less than 64 consisted of high-grade ore.

It has not yet been proved how far this extremely rich deposit continues in the direction of its strike, though one of the drives is at least 60 feet long. The newspapers record that a shipment of 1,000 tons of ore from this mine was recently treated for a yield of slightly over 4,000 oz. of gold.

So far as I could ascertain there has not been any notable decrease in the richness of the ore-bodies as they descend; on the contrary, in some mines the value of the ore appears to have increased in the lower levels. However, as the greatest depth hitherto attained is only a little over 300 feet, it would be risky to predict that no impoverishment will take place as the excavations are carried downwards; indeed, it would be more reasonable to expect that the auriferous ores will be found to occur in chutes, as is the case in so many true lodes.

A considerable amount of controversy was aroused, when the first traces of tellurides were discovered in Block 45, by a statement made by Mr. Maryanski, a mining engineer, to the effect that the permanence and richness of the Kalgoorlie lodes were now assured. This may perhaps appear to be a bold assumption when based on the mere presence of a small quantity of tellurium mineral. But when the mode of occurrence of the tellurides in the 300-foot levels is studied, when they are seen to be disseminated through dykes of igneous origin, there are, I think, reasonable grounds for expecting that the enrichment of the deposits by these minerals will continue, probably with intermissions, to very considerable depths. Should they prove to do so, and should their richness be maintained at anything like its present grade, the output from the Kalgoorlie mines, when efficient ore-reduction plants have been provided, should be something phenomenal, for one cannot avoid the conclusion that here there is an area of about 1 square mile, which, on present indications, promises to contain some of the richest gold deposits in the world.

The total output of gold from the Kalgoorlie Gold-field for the year 1895 is stated to have been 36,000 oz.; in 1896 it was about 100,000 oz., and for 1897 it rose to over 300,000 oz.

Another point about the productive belts in the Boulder dykes is that they occasionally split up or "fork," and the two branches, after diverging for some distance, again unite, enclosing a lens-shaped "horse" of unproductive material.

Along the western side of the Boulder field, and parallel to the dykes, there extends a narrow belt of jasperoid and chalcedonic rocks of varying colours, and in conjunction with this is a bed of black carbonaceous slate. These rocks are seen outcropping near Hannan's Lake, where they stand up from the surface like a wall. An examination of this outcrop shows that in places the slate is in process of replacement by white chalcedony. Neither the jaspers nor the slates are visible on the surface far north of Hannan's Lake, but they have been met with in shafts in several places along the west of the principal mines, thus proving the continuity of the beds for at least 4 miles. It seems probable that these jaspers, &c., mark a contraction fissure along the western boundary of the dykes, and that the silicification has been caused by the ascent of thermal solutions along the course of the fissure.

With regard to the genesis of the metalliferous deposits at the Boulder, there is much room for speculation, but in view of the limited extent of the present excavations, it is difficult to advance a perfectly satisfactory theory as to their origin. There is, however, little doubt that the productive belts have been subjected to a great deal of crushing, which has produced the schistose or foliated structure so characteristic of them, and it seems reasonable to suppose that the gold, silver, mercury, and other metals, together with the tellurium and sulphur, have been derived from solutions which deposited them between the folia of the shattered rock.

The question as to whether the deposition of the minerals has resulted from "lateral secretion" or from "ascension" of such solutions is one which will require more investigation than is possible at present; but in view of the dense character of the unproductive rocks adjoining the productive belts, I venture to think that if the ore deposits be due to lateral secretion, the leaching of the precious metals from the enclosing rocks must have taken place at a lower level than has yet been reached in the mine workings.

The surrounding district affords a fairly liberal supply of wood, suitable both for mine-timber and for fuel. Owing, however, to the difficulties of carriage, the mine managers, as a rule, prefer to employ imported coal for steam-raising.

Undoubtedly

Undoubtedly the most serious difficulty to be overcome in connection with the Kalgoorlie mines is the absence of a good supply of water. It has been already stated that the salt water obtained from the bed of Hannan's Lake is largely employed for mining purposes. The balance of the available supply is derived from the underground workings of the mines, and there seems to be little doubt that this will, at no distant date, prove inadequate. The source of mine waters is the rain which percolates through the more or less porous rocks within the zone of oxidation, and collects above the undecomposed rocks. As the workings progress in depth therefore, the supply of water must be expected to diminish in these mines, in accordance with the experience of other mining districts all over the world.

The water from the Boulder mines is said to contain free sulphuric acid (derived from the decomposition of pyrites), which necessitates the use of limestone to neutralise it before it can be employed in the cyanide vats. I was informed that about 7 lb. of limestone are used per ton of ore treated.

The Government having recognised the necessity for providing a water supply for these gold-fields, the Engineer-in-Chief, Mr. C. Y. O'Connor, has recommended a scheme for pumping 5,000,000 gallons per day from the Greenmount Ranges to a reservoir on the top of Mount Burgess, near Coolgardie, whence the water would flow by gravitation to the fields. The distance which the water would have to be pumped is 330 miles, and the vertical height which it would have to be raised is 1,350 feet. Nine pumping stations would be required, and the steel pipes would be laid on the surface of the ground, as the soil is so saturated with salts that they would be rapidly corroded if laid underground. The estimated capital cost of the scheme is £2,500,000, and the working expenses are set down at £320,000 per annum. It is also estimated that the scheme would allow of water being sold at the rate of 3s. 6d. per 1,000 gallons.

At present only the oxidised ores, in which the gold is free, are treated locally. These are, for the most part, reduced and amalgamated in stamper batteries, the tailings being subsequently treated by the cyanide process.

In the Australia Mine, however, the ore, after being crushed in rock-breakers, is heated to expel moisture, and then ground in Krupp mills. The greater part of the gold is then extracted in cyanide vats, and the tailings from these pass into Huntingdon mills, in which the coarser gold which remains (about 3 dwt. per ton) is obtained by amalgamation. A very good extraction is, it is claimed, obtained by this system.

At present the only mine which is provided with a reduction plant at all commensurate with its ore reserves is the Lake View Consols. This company has sixty head of stamps, forty of them being provided with the most modern accessories. The ore is conveyed by an elevated wire tramway to the battery, and the tailings are conveyed from the latter to a cyanide plant.

Many of the other mines will shortly be provided with modern reduction plants, so that a marked increase in the production of gold can be anticipated.

The telluride ores from the lower levels are at present sold, on the basis of their assay value, to the smelting works at Port Pirie, Dry Creek, and Lake Illawarra, where they are smelted with silver-lead ores, the resulting product being a bullion containing lead, gold, and silver. Experiments on the treatment of the telluride ores by roasting and cyaniding have been made at the mines, and it is stated that successful results have been obtained. It is probable that local works will be erected on these lines, though there is reason for supposing that the very rich concentrates will be more economically treated by smelting.

It is only natural to expect that in the neighbourhood of such rich auriferous matrices as those which occur in the Kalgoorlie field, alluvial deposits, resulting from the denudation of the lodes and dykes, should also occur. For a long time, however, it appears to have been thought that there were no ancient drainage channels of any depth, and that consequently no deep auriferous leads could exist. Until quite recently, therefore, alluvial mining was confined to the shallow or surface deposits, and these were worked with considerable profit by dry-blowing. These shallow deposits rest on a smooth floor of greyish-white travertine, which, for a long time, was regarded by the miners as "bed-rock." In September last, however, some more than usually enterprising prospectors at Kanowna, about 12 miles from Kalgoorlie, broke through the travertine, which proved to be only a thin stratum, and which was found to be underlaid by made ground, consisting of angular fragments of stone with a few rolled pebbles. By following this down an extremely rich gutter was discovered, resting upon a floor of decomposed quartz porphyry.

This lead was worked into deep ground, widening out as it was followed; and, at the time of my visit, had been proved payable at a depth of 50 feet, and was still going deeper. The gold is very angular, as a rule, indicating that it has not travelled far in contact with hard rocks; but the fact of its occupying an ancient drainage channel is undoubted.

The existence of the deep ancient valley, which was proved by Rollo's Well, near Coolgardie, and which I have already alluded to, is interesting in this connection; and I have very little doubt that deep leads, equally as rich as the one at Kanowna, will yet be found in the neighbourhood of the Boulder dykes. There is evidence of deep ground to the south-west of the mines, and a creek (dry, except in rainy weather) which trends towards Hannan's Lake, has cut its course through a fluviatile deposit of ironstone gravel some feet in thickness, which proves that a much greater rainfall occurred in former times. It can scarcely be doubted, therefore, that the denudation of these rich dykes has been followed by the concentration of the gold in alluvial gutters.

In conclusion, I may refer to the varieties of the telluride minerals hitherto found in the Boulder Mines.

In the Journal of the Chemical Society for November, 1897,* a reference is given to an analysis, by M. August Frenzel, of a mineral from Kalgoorlie, which he identified as sylvanite or graphic tellurium.

Two distinct minerals were fairly plentiful in the mines at the time of my visit. One of these was of a pale yellow colour, while the other was of an iron black. No crystal forms were observed, and it was a matter of some difficulty to obtain a sufficient supply of either variety, in a state of purity, to enable an analysis to be made. I am, however, indebted to Mr. W. F. Grace for a sample of the pale yellow mineral which has been analysed by Mr. J. C. H. Mingaye (Analyst to the Geological Survey of New South Wales), and has proved to be calaverite.

The

The analysis gave—

Te.	...	...	...	...	...	...	...	...	56.64
Au.	...	...	...	...	...	...	...	...	41.76
Ag.	...	...	...	...	...	...	...	...	80
									99.20
Sp. gr.	...	...	...	...	...	...	...	...	9.377.

With regard to the darker tellurides there may be more than one variety. M. T. A. Rickard, State Geologist of Colorado, informs me that he has recognised coloradoite—a telluride of mercury—at Kalgoorlie; and, quite recently, Mr. W. F. Grace forwarded me a sample of mineral, which proved to be a telluride of gold, silver, and mercury, with a trace of copper. Mr. J. C. H. Mingaye is making a quantitative analysis of this mineral, but it is not quite completed. There is very little doubt, however, that it is a new mineral species.

I was informed that telluride deposits had been found at Lake Lefroy, about 25 miles S.S.E. of the Boulder, and also near Broad Arrow, 25 miles to the N.N.W. It is significant that these two localities are on the line of strike of the Boulder dykes, and this would appear to indicate that the intrusions have taken place along a line of weakness, the extremities of which are at least 50 miles apart. It is quite probable, therefore, that other deposits of tellurides may be discovered along the course of this line.

I desire to record my thanks to a number of gentlemen in Western Australia for many courtesies, which greatly facilitated my work. Amongst these may be mentioned Mr. Wittenoom (Minister for Mines), Mr. Crockett (Acting Under Secretary), Mr. O'Connor (Engineer-in-Chief), Mr. H. P. Woodward, Mr. Maitland (Government Geologist), Messrs. Simpson, Blatchford, and Becher, of the Geological Survey, and the managers of the various mines.

APPENDIX 4.

Geological Survey Branch, Department of Mines and Agriculture,

Sir,

2 January, 1898.

I have the honor to briefly summarise the work performed by me during the past year.

On the 25th January I left Sydney to resume the Border prospecting work concurrently carried on by the Governments of this Colony and Victoria between Cape Howe and the head of the Murray River. Reaching Delegate on the 27th, I was engaged with the men under my supervision testing the rugged mountain country lying between Delegate and the Main Snowy Range, until the 27th of May, when it was officially approved that work should be suspended owing to the approach of winter which is too severe for the performance of efficient work in the open air in such elevated country.

Reaching Sydney on the 30th May I was engaged during June preparing my report on the geology and mineral resources of the Border country.

In July I visited the Upper Hunter River in company with Mr. Price, C.E., Engineer, Works Department, for the purpose of examining the strata at the site of the proposed flood-prevention dam near Denman, to determine the probability of a sound natural foundation being obtained at a moderate depth.

It is satisfactory to note that the opinion expressed in my report on the subject was confirmed later on in the practical tests recommended by you. The depth at which a solid conglomerate bed was reached being within 2 feet of the estimate. In August I dealt with a number of instructions and prospecting applications in the South Coast Districts as far south as Eden; and inspected and mapped the geological formations of the new gold-field of Wolumla, returning to Sydney in September.

During part of September, October, and part of November I was engaged in office as Acting Government Geologist during your absence in West Australia.

Later I visited the Gundagai and Wyalong Districts and dealt with certain areas on gold-field reserves.

Part of December I was also engaged acting in your absence from office.

I beg to hand you herewith copies of the following reports written during the year:—

1. Notes on the Geology and Mineral Resources of the South East Border of New South Wales between Cape Howe and the head of the Murray River.
2. Report on the natural foundations at the site of the proposed dam connected with the Hunter River Flood Prevention Scheme.
3. Report on the Luck of Roaring Camp Reef near Brown's Camp, Victorian Border.
4. Notes on the Geology and Auriferous Deposits of the Wolumla Gold-field.
5. Notes on the Occurrence of Tungsten Ores in New South Wales, with a register of localities.
6. Notes on Chrome Iron Ore, its Modes of Occurrence, Mining, Dressing, Uses, and Value, with a register of New South Wales Occurrences.

I have, &c.,

JOSEPH E. CARNE, C.E.,
Geological Surveyor.

The Government Geologist.

APPENDIX 5.

Notes on Chromic Iron Ore: Its Modes of Occurrence, Mining, Dressing, Uses, and Value; with a Register of New South Wales Localities.

Sir,

The chrome mining industry in New South Wales is of very recent date, though an abortive attempt was made to inaugurate it as early as 1882 in connection with deposits at Bowling Alley Point, Peel River. Trial parcels dispatched at that time, aggregating 100 tons, tested the market in Melbourne, Liverpool, and London. The highest realization, however—viz., 70s. per ton—was insufficient for profitable working under then existing conditions of land carriage, &c.

Attention

Attention was next directed to the chromite deposits of the Clarence River District; and, with a view of eliciting information as to the possibilities of the industry in that locality, Geological Surveyor (now Professor) David was instructed in 1891 to examine the outcrops. Extracts from his published report bearing on the mode of occurrence, quality, and probable extent of the ore bodies will be found under the head of "Gordonbrook" in the register of occurrences in these Notes. No practical attempt to test the market value of the ore, or the feasibility of profitable working, appears to have followed at that time.

In 1892, Mr. Wright, a chemist at Mittagong, interested himself in a group of chromite deposits on the east fall of Mooney Mooney Range, about 4 miles north-easterly from Coolac railway station. These eventually became the scene of the first practical mining operations, over 2,000 tons being dispatched from them during 1894 and 1895. The site, originally known as Wright's Mine, afterwards became the Vulcan Mine.

The opening of the Coolac Mine directed attention shortly afterwards to another group of deposits on the north and south falls of Mount Lightning, about 5 miles southerly along the same range, of which Mount Lightning is an isolated mass cut off by the intersecting channels of the Murrumbidgee River and Adjungbilly Creek, about 18 miles above the town of Gundagai (on the same river), the terminal railway station in that direction.

Several large ore-bodies occur on the flanks of the mountain, those on the north fall being designated Quilter's Mines, and those on the south Mount Mary Mine. Under this heading descriptions will be found in the Register. Practical mining and export began in this district in 1893, which caused not only local prospecting activity, but also general search throughout the Colony wherever serpentine was known to exist. Numerous discoveries of chromite followed, but only in the Gundagai-Tumut District did they become a source of profitable mining enterprise. In other localities, distance of land carriage in some instances, and inferior quality in others, retarded or altogether deterred extended prospecting.

The successful operations achieved in the Gundagai district stimulated further effort in that of the Clarence River, a fresh attempt being made in 1895 to turn those of Gordonbrook to account. A shipment of 30 tons was dispatched to test the market, with what financial result is not known; evidently, however, it was not sufficiently encouraging for continued effort. Lengthy land carriage and moderate quality combined are believed to have been serious obstacles to success in this instance—obstacles, however, capable of being modified or obviated in the future by improved roads and methods of ore dressing and concentration.

During 1894, 1895, and 1896 the chrome mining industry continued to flourish, the exports being 3,034, 4,299, and 3,851 tons respectively, but latterly it has languished and the output depreciated in consequence. The export for 1897 amounted to 3,379 tons, but a considerably less amount was actually mined during the year. The present is, therefore, an opportune time to review the situation and discuss the causes of fluctuation. A glance at the principal sources of the world's annual production of chromite may also be advantageously taken, especially for purposes of comparison of its chief modes of occurrence. It will also be useful to note its uses and value, and the latest methods of dressing and concentration of the crude ore for market.

Sources of Supply.

The principal supplies of chromite are drawn from Turkey, Russia, Greece, California, Canada, New Caledonia, and New South Wales. Of these countries, Turkey and Russia are reported to be the largest producers.

The following particulars are extracted from volumes ii and v of "Mineral Industry"*:—"The chrome deposits of Turkey, in the Province of Brousa, in Asia Minor, have for many years afforded the largest supply for the world's markets; but recent reports are to the effect that the supply is showing signs of exhaustion especially as regards the richer grades.

The Turkish ores are noted for their richness and freedom from silica, which is an objectionable ingredient equally in furnace lining and in the manufacture of bichromate salts.

From Macedonia the export is increasing, owing chiefly to the increased facilities of transport to seaboard. The best grades assay 55 per cent. chromium sesquioxide. The exports are reported to amount to 10,000 to 12,000 tons per annum.

For comparison, and as an index to values, the following analyses of Turkish ores are taken from Vol. v, page 155, of the work already quoted:—

	(1)	(2)	(3)
Sesquioxide of chromium	55·04	51·70	56·80
Protoxide of iron	12·63	14·20	12·06
Alumina.....	11·84	14·10	14·00
Magnesia	16·19	14·30	15·00
Silica	2·00	3·50	1·45
Lime	1·46	1·70	0·70
Water	0·40	0·30	0·15
	99·56	99·80	100·16

The value of the above ores is stated to have been (at the then ruling market rates, 1893), £5 10s. per ton in Europe for 50 per cent. chromium sesquioxide, with 5s. per unit additional for each unit above 50 per cent.†

The Russian chromite deposits occur in the Ural Mountains. Formerly the ore raised was exported, but the recent local establishment of bichromate manufactories absorbs almost the entire output, which amounts to about 2,000 tons annually.

The Grecian output is reported to be very irregular, ranging from 200 to 1,400 tons per annum.

Though previously mined in large quantities for a long period in Maryland and Pennsylvania, U.S., chromite is now practically only produced in California. The most important deposits occur in Sans Luis Obispo County, but the ore is reported to be too low grade and scattered to pay at present prices. The average grade of California ores, in fact, is low, ranging from 43 to 47 per cent. Under the head of concentration, further reference will be made to them.

The

* The Mineral Industry, its Statistics, Technology, and Trade, 1893, ii, p. 155. *Ibid.*, 1896, v, pp. 119-21. † Mineral Industry, 1893, ii, p. 155.

The production for 1895 amounted to 1,740 tons; and for 1896, 786 tons.

The production of chromite in Canada is of very recent date, the recorded output prior to 1894 only amounting to 50 tons. The output for 1895 was 3,177 tons; and for 1896, 2,362 tons.* The deposits occur irregularly and in small pockets in the serpentine belts of Quebec. The ore is of comparatively low grade, and is principally used for furnace lining in Pennsylvania. Large quantities of chromite are reported to be again coming forward from New Caledonia, where large and rich deposits occur on the seaboard. The following description is from "Mineral Industry" †:—"Chrome iron ore occurs in great abundance in New Caledonia, where it was first mined in 1875, the ore being a constant associate of the serpentine rock of which a great portion of the island is composed. The most important deposits are those of Mont d'Or, N'Go River, and Canoe Bay, which are near the sea, and are connected with the port of shipment by a short railway. The ore exported averages 50 per cent. Cr₂O₃. Alluvial ores are also met with at a great number of points in the south of the island, forming beds 30 inches in thickness. . . . There are also in New Caledonia large deposits of iron ore, containing 50 per cent. of iron and 2 to 5 per cent. of chromium sesquioxide. These occur in large masses of red clay in the serpentine country rock, which have been formed from the decomposition of the rock itself. This ore is low in phosphorus."

A similar iron ore is reported to occur in large quantity in Tasmania.

The chrome mining industry in New Caledonia is most advantageously circumstanced as regards proximity to seaboard, purity, and low-priced (convict and native) labour; hence it will always be a formidable rival to Australian chrome mining, where the conditions are not so favourable.

Detailed descriptions of the known New South Wales deposits will be found in the Register forming part of this paper.

From New Zealand, chromite was exported for a few years prior to 1866, but ceased in that year. At Dun Mountain, in the Nelson District, bands of the mineral 10 feet and 15 feet thick are reported. The Government Geologist, Mr. Alex. McKay, reports ‡:—"Chrome ore occurs in New Zealand, chiefly in association with the magnesian rocks of the Dun Mountain mineral belt, in the Nelson provincial district. Associated with rocks of the same age and character, it also occurs in the mountainous district of North-west Otago and the southern parts of Westland.

"The chief developments of ore (in the Nelson District, J.E.C.) are found between the Upper Maitai Valley and the Lea River, a distance along the mineral belt of 12 miles. The ore occurs in elliptical masses, usually at a given distance from the north-west margin of the mineral belt. Some of these deposits are of considerable size, and the total of the ore exported from Nelson (5,666 tons, J.E.C.) was mainly from one outcrop supplemented by a lesser quantity from Little Ben Nevis."

Large chromite deposits have lately been discovered in Newfoundland, and are now being opened up. There are, in addition to the above, other less important sources of supply, which need not be mentioned here.

Modes of occurrence of Chromite.

Under this heading, attention will only be paid to occurrence in commercial quantity. The mode of occurrence of commercial chromic iron ore in all producing countries is characterised by uniformity of physical conditions. As a general rule, it forms "bunches" or "pockets" in serpentine, usually of comparatively small size; and occasionally in alluvial deposits resulting from weathering and denudation of the enclosing rock. A few notable exceptions to the general rule regarding size of chromite bunches occur in Turkey, and in Maryland, and Pennsylvania, in the United States; and, it is believed, also in New Caledonia. A few large deposits in Turkey, have for nearly fifty years, continued to afford the principal part of the World's supply. According to Dr. D. T. Day§, Reed's Mine, Harford County, Maryland, produced over 100,000 tons of ore before exhaustion. Another very notable exception was the Great Wood Pit, Lancaster, Pennsylvania, which, according to the same authority, was worked to a depth of 700 feet, and for forty or fifty years afforded the greatest part of the world's supply.

The following description of the occurrence of chromite covers the general run of chromite deposits, and is especially applicable to those of New South Wales so far discovered:—"The chrome mining industry in California has never been put upon a permanent basis, however, owing chiefly to the irregularity in the occurrence of the mineral and the peculiar local conditions. As elsewhere in the world, the chrome ore there is found in serpentine, whence it is easily mined, but it usually occurs in small pockets, which are soon exhausted; indeed, as a rule, the deposits are too small to warrant the outlay of much capital for their exploitation, and mining is consequently comparatively expensive."||

In Turkey, the ore forms irregular pockets and masses in serpentine, which are worked in open cut.

The Russian deposits are classified by Gustave Rose under three heads:—(1) Those which occur in large granular masses in serpentine; (2) those where the mineral is finely disseminated through the rock; and (3) in alluvial deposits.¶

In "A Treatise on Ore Deposits" by J. A. Phillips and Henry Louis, 1896, p. 182, the following extract is quoted from Vogt:—"Deposits of chromite all the world over are basic magmatic segregations from peridotite, occurring as lenticular masses of varying dimensions in peridotite or in serpentine, resulting from the alteration of the rock"; in other words, the chromite segregated into masses whilst the original matrix—peridotite—was in the condition of a pasty or viscid magma.

Professor Garrison describes different forms of chromite deposits thus**:—"They have no orderly mode of occurrence or of extension of figure. They are neither veins nor beds nor fissures, but are ore pockets, each of which must be considered as a complete unit, having no relation whatever to any other pocket in the region in which it may exist. So far as concerns chrome mines, it would be futile to argue the position of an unknown pocket from the basis of any known ore."

From the above extracts and quotations it will be seen that the discouraging features of New South Wales chrome mining are not peculiar to this country; moreover, they serve to emphasise the views expressed in my second report on the Gundagai-Tumut chrome field ††:—"Chrome mining in the districts in

* The Statistical Year Book of Canada, 1896, p. 102.

† The Mineral Industry: its Statistics, Technology, and Trade, 1893, ii, p. 156.

‡ The New Zealand Record, 1897, i, No. 5, p. 229.

§ The Mineral Industry, 1893, ii.

|| *Ibid.*, pp. 151-2.

¶ *Ibid.*, 1893, ii, p. 153.

** Ann. Rept. U.S. Geol. Survey, 1895-96, xvii, pt. iii, pp. 261-272.

†† Ann. Rept. Dept. Mines and Agric., N.S. Wales, for 1895, p. 128.

in question has now been advanced to a stage which enables a fairly clear opinion to be formed of the nature and mode of occurrence of the deposits; and the experience of the past year teaches that they in no way differ from those of other countries which have been described as "pockety" and "bunchy," "irregular" and "uncertain." Therefore it seems imperative, if the chrome industry is to be advanced and maintained as a profitable commercial undertaking, that systematic prospecting must be kept well ahead, not only of actual winning, but also of actual discovery, so that new finds may be made available as the old give out, and thus prevent frequent cessation of work.

With resolute grasping of the fact of comparatively small but numerous and widespread deposits, coupled with systematic prospecting and proving, careful blending of ores and uniformity of grade, and by saving and concentration of smalls where practicable, there can be no doubt that the chrome industry of the Colony will be maintained on a vigorous and profitable scale.

In prospecting, it will be wise not to confine the search to surface outcrops of deposits, but to extend it to alluvial deposits; for, as already mentioned, commercial accumulations of chromite detritus are worked both in Russia and New Caledonia. In passing along the serpentine belt between Tumut and Mount Lightning, chromite rubble was frequently observed on grassless patches and in small rivulets on the slopes of the ridges. Advantage should be taken of these indications to trace by loaming—washing portions of soil—the source of the liberated particles; for though they may in some instances be derived from serpentine containing the mineral sparingly distributed through the mass (as chromite is always present in small proportion in serpentine), yet there is always reasonable prospect of it being shed from segregated masses, which at the present time are obscured by soil.

An instance of natural concentration of disseminated particles liberated by decomposition is furnished on a very small scale at Port Macquarie, where the now coherent grains form small patches assaying 48 per cent. of chromium sesquioxide.

Dressing and Concentration of Chromite.

The necessity of concentration is a question which is forcing itself on the attention of those interested in chrome mining. In California, where much of the ore at present accessible is of low grade, concentration has already been adopted; for, as pointed out in the valuable work already freely quoted ("Mineral Industry"), "the future of the chrome industry in California seems to depend upon more careful dressing of the ore, either by hand or mechanically." There can be no question that, apart from utilising deposits of low-grade ores in this way, the great market desideratum, viz., uniformity of grade, would be secured by dressing and concentration.

Where the ore is rich the usual practice of cobbing and hand-picking is sufficient to secure a high grade, but generally the richest ores are the most friable; hence considerable loss is entailed as smalls during the present process of mining and hand-dressing. The rich fragments which thus become mixed with the waste could be recovered by concentrating machinery. Hard, compact ore of low grade, in which the impurities are finely and intimately mixed, may not prove as amenable to concentrating treatment as comparatively lower-grade ores roughly mixed with serpentinous impurities. The latter, in cases where the serpentine has decomposed into magnesium clays, would probably afford special facilities for concentration. The hard ore in question might be utilised in two ways: after coarsely crushing and washing it might be mixed in carefully ascertained proportion with the rich concentrates to ensure an uniform grade of good quality; or it might be made available for furnace lining if the market rate afforded a margin of profit.

Touching the method of concentration, the following description of a plant running in California is valuable as a guide* :—"One of the chrome dressing works now in active operation in California is equipped as follows :—Rock-breaker, 6-ft. Huntingdon mill, and four Woodbury vanners with corrugated belts, together with settling tanks, drying floors, and the usual driving machinery, &c. The plant, which is capable of turning out from 20 to 25 tons of dry concentrates per twenty-four hours, cost about 12,000 dollars (£2,400). The process is carried out as follows :—The ore is crushed by the breaker and the Huntingdon mill so as to pass a 40-mesh sieve. The pulp is separated on the Woodbury vanners. The concentrates are collected in settling tanks, whence they are removed to the drying floors, and finally packed for shipment in strong jute bags."

The fuel used is wood. The crude ore does not cost more than 7 dollars (28s.) per ton for best grades, delivered at the mill.

The result of a month's run of the above mill is stated to have been 700 tons (2,000 lb. per ton) of 50 per cent. concentrates, which at the then market rates (1893) yielded a profit of 3 dollars (12s. 6d.) per ton, and 1 dollar (4s. 2d.) per ton for each 1 per cent. above 50 per cent. produced.

The following analyses give the results of the concentration of Californian crude ore† :—

	Crude Ore.	Concentrates.
Sesquioxide of chromium	43·70	52·86
Protoxide of iron	14·80	15·45
Alumina	15·96	11·59
Magnesia	16·49	16·28
Silica	7·96	3·00
Lime	·66	·76
Water	·49	·10
	100·06	100·02

Owing to the varying percentages of sesquioxide of chromium contained in chromite, it is recommended that preliminary panning or hand-jigging tests, with careful analysis of results, should first be made to ascertain the suitability of the various ores for treatment on a large scale of concentration.

With regard to concentration of New South Wales low-grade chromite and smalls resulting from mining and hand-dressing, both the Gundagai-Tumut and Clarence River deposits appear to offer fair fields for practical tests. At Mount Lightning, Adjungbilly, and Brungle Creeks, a plentiful water supply is available for such operations; but looking at the question in a larger light than individual interests, and having regard to the scattered occurrence of the deposits and the comparatively limited amounts of material available at any one mine or group of mines, there can be no question that the establishment of a central dressing and concentrating plant on the Murrumbidgee River—(say) at Gundagai, the present railway terminus in the district—would best serve the interests of the whole field. Low-grade ores, seconds, and smalls, could be disposed of to such an establishment on bulk assay values.

Uses

* Mineral Industry, 1893, ii, pp. 153-4.

† Mineral Industry, 1893, ii, p. 153.

Uses of Chromic Iron Ore.

Before discussing the uses of chromite it will be useful to briefly note its physical characteristics and chemical composition. The metal chromium (of which chromite is an oxide), according to R. A. Hadfield,* has an atomic weight of 52.40, and a specific gravity of 6.8–7.3, with a high melting point not yet determined.

Chromium is used in the metallic state only in making chrome steel, and even in this instance it is used as ferro-chromium. Quite recently M. Henri Moissan† has demonstrated the possibility of manufacturing pure chromium and tungsten in commercial quantities. His latest method is to take a carbon pipe filled with the metallic oxide mixed with carbon, inclining it, and subjecting it to the electric current; the metal contaminated with carbon readily flows off as a result of the reaction. Two carbides of chromium have been identified. The carbides are purified by remelting with lime.

Chrome steel is used chiefly in the manufacture of armour plates and armour-piercing projectiles, for shoes and dies in stamper batteries, and for burglar-proof safes and edge tools. Professor Garrison states that the "extreme hardness of the chromium steel face is dependent upon the content of carbon, whose action is intensified by the presence of the chromium, and is only developed after the steel has passed through a system of hardening. This tempering consists essentially in heating the plate to a red heat, and quenching it with sprays of ice water."‡ Sir Frederick A. Abel, in his presidential address before the British Association for the Advancement of Science, Leeds, 1890, stated that "chrome steel has for some time been a formidable rival of the very highest qualities of carbon steel produced for cutting tools, and of the valuable tungsten steel. The great hardness, high tenacity, and exceeding closeness of structure possessed by suitably tempered steel containing not more than from 0.8 to 1 per cent. of carbon, renders this material invaluable for war purposes. Cast projectiles, when suitably tempered, have penetrated compound steel and iron plates over 9 inches in thickness, such as are used upon armoured ships of war, without even sustaining an important change of form."

The presence of a small percentage of chromium in gun-metal is also likely to prove beneficial. Chromium is used in the production of first quality steel rails for railway purposes. Steel with 1 to 1.5 per cent. of carbon and from 2.5 to 4 per cent. of chromium is stated to be so hard that it cannot be worked with the ordinary hardened tools; consequently it has been called into requisition for the construction of burglar-proof safes. For this purpose it is welded and rolled with iron plates.

Chromite is the most common ore of chromium. Its composition, according to Dana, is—chromium sesquioxide, 68.0; iron protoxide, 32.0=100. Specific gravity, 4.32 to 4.57; hardness, 5.5; colour between iron-black and brownish-black, generally exhibiting emerald-green encrustations on smooth semi-conchoidal faces; lustre, sub-metallic to metallic, sometimes feebly magnetic.

Tests.—Before blowpipe in oxidising flame, infusible; in reducing flame, slightly rounded on the edges, and becomes magnetic.

With borax and salt of phosphorus, gives beads which while hot show only reaction for iron, but on cooling become chrome-green. Not acted on by acids, but decomposed by fusion with potassium or sodium bisulphate.

Chromite is reported as not uncommon in meteoric iron.

Other ores of chromium occur, the chief of which is crocoisite—chromate of lead—in which the metal was first discovered.

Serpentine, in which the chrome deposits occur, owes its colour to chromium salts. The beautiful colour of the emerald and of ouvarovite (chrome-garnet) is due to the presence of chromium, and probably also that of the ruby and sapphire; for it has been demonstrated that if the formation of crystallised alumina is accomplished in the presence of chromium compounds, crystals having the colours of ruby and sapphire, as well as their composition, may be produced.§

The other varieties of chromium ores are of mineralogical interest only, and call for no special mention in this paper, which is concerned with the economic ore alone.

Chromite, or chromic iron ore, is used in the arts for the manufacture of potassium and sodium bichromates, for the preparation of basic furnace hearths, and for reduction to ferro-chromium for the production of chrome steel. By far the most part of the mineral produced is employed for the first purpose, for which only that of high grade can be economically used; while for furnace hearths, and for manufacture of ferro-chromium, ore of lower grade suffices. ("Mineral Industry," vol. ii, 1893, p. 158.)

Chromite is coming largely into use as a refractory lining for basic furnaces. The latest particulars available of its use in this direction are given in the last volume of "Mineral Industry,"|| from which the following extracts are taken:—"At present the mineral is employed in reverberatory copper-smelting furnaces, and in open hearth steel furnaces, in both with very satisfactory results. Concerning the former, Herbert Lang writes¶: 'The Selby Smelting and Lead Company has used it quite extensively in the matting reverberatories at Vallejo Junction, California. The hearth is composed of large fragments of chrome ore, with the interstices well filled with smaller pieces, and the material is built up around the sides to the slag line. The protection is such that fettling is almost done away with; in fact, they have not to fettle but once a week or so. The chrome ore is acted on but slightly, if at all.'

Alfred von der Rupp, Superintendent of the Works, states** 'that the life of the furnace is more than doubled by the use of chromite.'

In the "Mineral Industry," 1893, vol. ii, it is stated that chromite has been used instead of magnesite and dolomite in basic furnace hearths, the method of preparation of which is given as follows:—"In preparing basic furnaces with chromite linings, all parts of the walls with which the metal bath and slags come in contact are laid with pieces of chromite, cemented with a mortar consisting of two parts (by volume) of finely ground chromite, and one part of lime, burned as free from silica as possible. The hearth is made of stamped chromite ore, mixed with same kind of mortar. The ore should be as rich as possible in chromic acid, containing from 40 to 45 per cent."

In

* Journal Iron and Steel Institute, 1892, ii, p. 53. † Engineering and Mining Journal, Nov. 6th, 1897, p. 550.

‡ Ann. Rept. U.S. Geol. Survey, 1894-95, xvi, pt. iii, pp. 610-14.

§ Precious Stones and their Artificial Production; by Prof. J. W. Judd, C.B., LL.D., F.R.S.—Roy. Coll. of Science Magazine, No. 74, vol. viii, pt. 9, p. 268.

|| The Mineral Industry, &c., 1896, vol. v, pp. 120-3.

¶ Engineering and Mining Journal, January 23rd, 1897, p. 89.

** Mining and Scientific Press, Sept. 26th, 1896, p. 257.

In Vol. ii, 1895, p. 506, of the "Journal of the Iron and Steel Institute," reference is made to an article in "L'Echo des Mines," vol. xxi, page 548, as follows:—"According to P. Speier, chrome ore linings for reverberatory furnaces have been successfully adopted in French, German, and Russian steel works. The bottom and walls of the furnace are lined with chrome ore in large blocks, united by a cement formed by two parts of chrome ore finely ground, and one part of lime, as free from silica as possible. . . . The iron chromate is decomposed only under the influence exerted by the reagents and oxidising alkaline substances. Heat alone is insufficient to decompose chromate of iron, which may float in a bath of molten steel covered with basic slag without dissolving. One of the principal conditions of success in the employment of the chrome ore lining consists in carefully picking the pieces of ore used, which should be of uniform composition; and the best composition of ore used for lining reverberatory furnaces is found to be from 36 to 40 per cent. of chromic oxide, 18 to 22 per cent. of clay, 9 to 10 per cent. of magnesia, and at most 5 per cent. of silica."

Messrs. G. R. Blackwell, Sons, & Co., of Liverpool, England, are quoted for the statement that chrome ore had been used by steel manufacturers in Lancashire and Yorkshire for about fifteen years. They also remark that it is not necessary to make the chrome ore into bricks, a better method being to crush it to pea size, mix with tar, and line the furnace as if with mortar. The tar burns away, leaving a solid lining of chrome ore, which has been found to give satisfactory results.

The consumption of chrome ore in open hearth basic furnaces in the United States amounts to about 1,800 to 2,000 tons annually, according to the publication quoted ("Mineral Industry"), the Pittsburg supply being for the most part from the Province of Quebec. The requirement is for an ore of not less than 45 per cent. chromium sesquioxide, but the shipments are reported to rarely average so high. The ore is used in lump form for patching the sides of the basic lined furnaces, and is found far more convenient and durable than a slurry of dolomite.

According to the same authority, very hard and lasting chrome bricks are manufactured at Pittsburg for use as a neutral parting between the basic hearth and silica roof.

In connection with the rapidly increasing use of chromite as a refractory furnace lining, the comparatively low grade of material suitable for this purpose should have an important bearing in the near future on the local chrome mining industry, for increasing demand the natural correlative of increasing use is almost certain to give a remunerative value to ore at present below the minimum market grade, deposits of which are already known to exist in the local chrome fields.

Buyers still stipulate for high grades of 50 per cent., or more; probably 47 per cent. is about the lowest local grade for which a price would be quoted at the present time. It will, however, be noted in the quotations and extracts embodied in this paper that the stipulated grade of chrome ore for furnace lining at Pittsburg, U.S., is 45 per cent., and even this comparatively low grade percentage is reported to be rarely reached. The average percentage of chromic-acid in furnace lining may be taken as about 40 to 45. In chrome steel manufacture, or more correctly in the preparation of its preliminary stage of ferro-chromium, low grade ores of the above character are reported to be suitable.

Whilst fair supplies of rich ore are procurable from Asia Minor, Greece, and New Caledonia at about 75s. per ton (f.o.b.) for 50 per cent. ore, and 2s. per unit in excess, as has recently been quoted in a letter from Cologne to the Department of Mines and Agriculture in this Colony*, much lower than fairly proportional values will rule for low grades; still there is reasonable hope that increased consumption in the latest sphere of usefulness will correspondingly increase the value of lower grades, and thus render remunerative local deposits of this character known to exist within easy reach of railway carriage.

Railway concessions for transport of crude ores to seaboard have been steadily increasing until the rate per ton per mile has reached a nominal figure. Shipping freights can also be arranged for them at exceptionally low rates owing to the effective stiffening they afford to wool ships and other carriers of bulky cargo.

Attention is also directed to another bearing which the successful use of chromite as a refractory furnace lining may have on local industry, viz., the possibility of local consumption in connection with copper and matting furnaces, to say nothing of the iron smelting furnaces of the—it is hoped—near future. Doubling the life of a furnace and reducing fettling to a minimum—as proved in other countries—by the use of chromite lining, should induce practical tests in this Colony.

The chief use of chromite at the present time is in the preparation of chemical salts for use in the arts, in painting, calico printing, dyeing, and tanning. Chrome pigments embrace various shades of red, yellow, green, buff, and black. Green oxide of chromium is used extensively as an enamel colour for porcelain.

A new use for chromite is reported from France, where a compound known as *Silichromite* is manufactured. According to "Mineral Industry" (vol. v, 1896, p. 123) "it is an extremely hard, crystallized substance, but easy to pulverize, and is used for moulding and polishing purposes. It is prepared by treating chrome ore, sand, and coal, in an electric furnace, wherein a molten mass, in which chromium silicate predominates, is obtained."

REGISTER OF CHROMITE OCCURRENCES IN NEW SOUTH WALES, WITH NOTES AND DESCRIPTIONS.

Adjungbilly Creek, Parish Darbalara, County Buccleugh.†—On the south side of Mount Lightning, close to the Adjungbilly Creek, Messrs. Carroll and Gillespie were working on tribute an area on Mr. Quilter's property, known as the Mount Mary Mine. At the time of my inspection in 1895, about 400 tons had been despatched, averaging, according to the tributors' statement, from 48 to 49 per cent.

The main deposit was being worked by means of an open cut about 50 feet long, and 20 to 30 feet deep. The ore exposed under foot was solid, and about 7 feet in thickness, whilst a wedge of ore in the upper workings was left standing about 12 feet high and 10 feet thick.

Several smaller bunches were exposed by shallow cuts and trenches high up the slope of the mount.

The most important of the new finds was situated near the top of the mount, where a solid bunch about 10 feet by 4 feet outcropped above the soil.

On the south side of Adjungbilly Creek, on the continuation of the serpentine ridge, Welsh's mine is situated. The only known deposit in this mine was exhausted for a yield of about 220 tons.

Angular Creek, County Murchison.—Chrome has been reported from this locality, but no particulars are known.

Attunga

* From F. E. Clotten, 136, High-street, Cologne, Germany.

† J. E. Carne, Ann. Rept. Dept. Mines and Agric. for 1895, p. 126.

Attunga and Manilla—Between these localities a serpentine belt extends in N.N.W. direction. Several chrome deposits have been reported in it by Mr. C. S. M'Glew; but, so far as his prospecting extended, none were of sufficient size to induce mining for export.

Armidale.—Samples submitted for assay in 1884 and 1886 from the Armidale district yielded 38.5 and 43 per cent. respectively.

Barraba.—Chromite from this district, assayed in 1888 and 1895, yielded 40 to 44 per cent.

Bendemeer.—Chromite, assaying 38.5, submitted in 1884.

Berthong Run, near Wallendbeen.—Mr. Geological Surveyor Jaquet has described the Berthong chrome deposits as follows:—
“Chromite has recently been discovered upon Berthong Run, but nothing has yet been done in the way of proving the extent of the deposits. In the bed of Berthong Creek a shallow trench of 5 feet long and 2 feet broad has been cut through a mass of this mineral. Chrome ore has also been found in a shallow trench put down upon the banks of a tributary of Berthong Creek. In the vicinity of the discoveries, and over a large portion of the serpentine zone, the bed-rock is hidden by a shallow alluvial deposit, and it will be necessary for prospectors to find the ore bodies below.”*

Samples forwarded from the above-described deposits yielded from 39.5 to 54.04 per cent.

Bingara.—Chromic iron deposits have been noted at Spring Creek, about 3 miles south-easterly from Bingara, by Geological Surveyor David, who reported that the serpentine in which they occur “forms an eruptive dyke from 3 to 5 chains wide, striking either north-westerly or northerly. Segregated masses of chrome iron are observable at intervals in the serpentine,”† and one bunch is stated to measure about 7 feet by 6 feet. Two assays are recorded from the Bingara district, viz., 40.87 and 41.21, the localities being 12 and 14 miles south of Bingara.

Bowling Alley Point, near Nundle, Peel River.—As already mentioned the deposits of this locality were the first opened in the Colony—100 tons being mined in 1882.

The late Government Geologist, Mr. C. S. Wilkinson, F.G.S., &c., in one of his reports states that “on a high range about 1 mile north-east from Bowling Alley Point occurs a lode of almost pure chromite of variable thickness. In one place, at the junction of diorite and serpentine, it crops out on the surface 12 feet wide.”‡

Professor Liversidge states that “the outcrop from which this was taken—(samples of chrome under description J.E.C.)—is about 700 feet above Bowling Alley Point, and the apparent thickness of the vein is in one part some 40 odd feet; one huge block of the mineral lying loose on the surface measures 12 feet long by 6 feet high, and 5 feet wide.” A specimen from this locality is reported by the same author to have contained 64.72 per cent. chromium sesquioxide, and 21.11 per cent. iron protoxide.§ Other assays in 1892 are recorded varying from 37.42 to 43.50 per cent.

Brawlin, from foot of Cowong Range, 7 miles south-east.—A sample forwarded for assay, bearing the above locality, yielded 31.13 per cent.

Brungle Creek, Parish Wyangle, County Buccleugh.—||The Emu and Mount Miller Mines occur on either side of this creek, near the crossing of the Tumut-Tomorrowmah Road. The serpentine is here deeply intersected by the creek and its tributaries. The Emu Mine at the time of inspection consisted of two bunches of chromite, one rather superficial, the other of better promise as regards size, but not as regards quality. Abundant water supply in close proximity to both the mines mentioned should afford the best means of ensuring a high grade product for export.

Mount Miller Mine is situated high upon the range on the opposite side of the creek. The deposits here are very small at surface. A sample from the outcrop yielded 48.13 per cent.

Assays from this locality are recorded from 32.16 to 52.54 per cent.

Clarence District.—See Gordonbrook.

Coolac.—See Wrights and Vulcan Mine, Mooney Mooney.

Cootamundra.—Assays are recorded of samples purporting to come from this locality—but which may be either Berthong or Coolac—from 45.75 to 57.82 per cent.

Copmanhurst.—Probably identical with Gordonbrook. Assays recorded from 40.71 to 45.45 per cent.

Darbalara Parish, County Buccleugh.—See Quilters' Mines.

Emu Mine.—See Brungle Creek.

Eurongilly.—On Mr. Keogh's private land a small bunch of low grade chromite was noted, which had been broken from a loose block found in the soil which here is deep. The country consists of talcose slate. Assays are recorded from 40.9 to 41.38 per cent.

Gordonbrook, Clarence River.—Mr. Geological Surveyor David reported on the occurrence of chromite in this locality in 1891. They occur in the parish of Pucka, about 30 miles north-west from Grafton, at Oaky and Fine Flour Creeks.

“The deposits of chromite in this neighbourhood form two principal groups. . . They both occur in serpentine at a short distance from the edge of the Clarence Series. . . Besides these two formations a third is developed, which may be described as a fine-grained, greenish-black rock, slightly crystalline, and, probably, a highly altered rock, which might be termed epidiorite. . . This rock appears to have been intruded by the serpentine, and the deposits of chromite marked A on the plans herewith occur chiefly along the junction line of this rock with the serpentine.”¶

In connection with the first group (A) in Portion 7, Parish Pucka, Mr. David measured the two larger bunches as 12 feet x 12 feet and 24 feet x 18 feet. In the latter the chromite was a good deal mixed with serpentine, and would require dressing to render it marketable.

Deposit B is reported as forming a bluff on the left bank of Oaky Creek, about 2 miles north-westerly from the first group. The second group consists of two bunches—the main one about 90 feet x 36 feet at its maximum width. The quality is reported as superior to that of A group.

At the time of inspection the above deposits were not proved beyond a few feet except in the main deposit of the second group (B), of which a natural section is available down to 20 feet in the creek channel.

Mr. David regarded the deposits as lens-shaped bodies, the vertical extension of which, probably, equals the horizontal. Calculating on the basis of these dimensions, he estimated that the known Gordonbrook deposits would yield approximately about 20,000 tons of chrome ore to a depth of 90 feet from surface.

Samples selected at the time of inspection yielded from 40.25 to 55.27 per cent. Others by Mr. W. A. Dixon, F.C.S., F.I.C., were quoted in the report from 39.7 to 48.61 per cent. Earlier assays (in 1886) are from 28.44 to 47.70.

Two attempts to open these deposits have been made in 1891 and 1895, but so far unsuccessfully. Perhaps cost of carriage is one of the chief reasons for non-success. From the mines to Copmanhurst, the nearest point of available water carriage on the Clarence River, a distance of about 24 miles, has to be negotiated with teams, part of which is over a rough road.

Gundagai District.—See Mooney Mooney, Vulcan, Quilter's Adjungbilly, and Kangaroo Mine.

Gwydir River.—Chromite is reported from the Gwydir River and its tributaries (see Bingara).

Gulgong (?).—A sample of rich chromite is reported from this locality, but no analysis or particulars are given.**

Grenfell.—From near Grenfell a sample yielding 43.22 per cent. is recorded.

Harden, County of.—See Mooney Mooney.

Houlahan, Parish of, County Clarendon.—Chromite from this locality yielded 40.71 per cent.

Ironbarks and Barraba.—Chromite from the serpentine of this district has been assayed for a yield of 46.45 per cent.

Ironbarks, between Ironbarks and Mudgee.—Chromite has been reported from between the places mentioned, but there are no particulars on record.

Kangaroo Mountain, Kangaroo Mine, †† Parish Wagara, County Buccleugh.—The Kangaroo Mine is situated in portion 128. It was opened in 1894 by Mr. M. Constable, under agreement with owner of the land, Mr. Robert Owen.

This deposit constitutes one of the most important of the chrome-field, both as regards extent and quality. At the time of inspection in February, 1895, the output was averaging about 100 tons per week, about 1,200 tons having been dispatched to that date.

Down to 30 feet the main open workings averaged about 75 feet x 25 feet x 30 feet. At this point the dangerous open work system of mining was abandoned in favour of a safer method of shafts and levels.

For

* Ann. Rept. Dept. Mines and Agric. for 1895, pp. 179 and 180. † Ann. Rept. Dept. Mines and Agric. for 1891, p. 235.

‡ Ann. Rept. Dept. Mines for 1885, p. 135. § Liversidge, Minerals of New South Wales, 1888, p. 106.

¶ J. E. Carne, Ann. Rept. Dept. Mines and Agric. for 1895, p. 127.

** Ann. Rept. Dept. Mines for 1877, p. 211.

†† J. E. Carne, Ann. Rept. Dept. Mines and Agric. for 1895, p. 126.

For about 200 feet the ore body was exposed by open cuts. At surface the solid chromite was narrow, but opened to about 18 feet in the widest part. In the open workings, at 30 feet level, the chromite exposed measured about 54 feet by a width of 4 feet.

The quality of the ore proved consistently good, the lowest average in account sales of 1,230 tons dispatched to the date mentioned was 53 per cent., and the highest 57 per cent. of chromium sesquioxide.

In addition to the Kangaroo Mine, about twelve other smaller deposits were discovered which yielded about 75 tons of marketable ore. Other pockets were known at the same time, but had not been opened.

Keefe's Mine, between Brungle and Bumbolee Creeks, County Buccleugh.*—At the time of inspection (February, 1895), little work had been done at this site, which is on private property. A small chromite bunch or pocket, about 6 feet long by 2 ft. 6 in. wide, had been opened for a few feet only. Most of the ore was mixed with country, and required dressing. Other deposits were reported on this property, and latterly more attention has been given them. Distance of team carriage, however, is reported to have prevented profitable mining being maintained at the present time.

King, County of, near Fass.—Chromite has been noted in this county, but no particulars are available.

Manning River, Upper.—A sample purporting to come from this locality has been assayed in the Departmental Laboratory for a yield of 46.19 per cent.

M'Inerny's Mine,† near Bumbolee Creek, 8 miles from Tumut, situated near the south-west corner of Portion 351, Parish Mundongo, County Buccleugh.—This site was also inspected in February, 1895. A few small bunches were then being prospected, but the quality of the ore was inferior. This mine was the furthest southerly in the serpentine belt at the date mentioned, the distance from the Gundagai railway station being about 30 miles.

Molong, 15 miles west.—A sample of chromite bearing this inscription was assayed for 24.08 per cent.

Moonbi, 12 and 15 miles from.—Numerous samples have been forwarded from this District. Assays are recorded from 39.21 to 43.30 per cent.

Mooney Mooney.—See Wright's and Vulcan Mine.

Mount Lightning.—See Quilter's and Mount Mary Mines, and Adjungbilly.

Mount Mary Mine.—See Adjungbilly.

Mount Miller Mine.—See Brungle Creek.

Murrumburrah.—Chromite reported as coming from this district yielded 44.40 per cent.

Nundle.—See Bowling Alley Point.

Oaky Creek.—See Gordonbrook.

Paling Yard and Dry Diggings (between).—Chromite sent for assay from this locality yielded 40.67 per cent.

Port Macquarie.—From the serpentine of Port Macquarie samples of coherent chrome iron sand have been received recently, which yielded 48.24 per cent. chromium sesquioxides, and 1.29 per cent. of cobalt protoxide. No solid chromite pockets have yet been discovered in the neighbourhood, and the mode of occurrences of the compact sand points to the natural concentration of small disseminated particles of chromite liberated by weathering and decomposition of the serpentine. Magnetic iron oxide occurs at Port Macquarie under similar conditions.

Pucka.—See Gordonbrook.

Quilter's Mines.‡—Of the six deposits of chromite described in my first report,§, as occurring on Mr. John Quilter's property at Mount Lightning, three had been opened by the date of my second visit in February, 1895, and 1,100 tons of ore despatched mainly from two of the deposits. Both the latter presented very small outcrops. The open cut system had been adopted in winning the ore, but at 20 feet it had to be abandoned in favour of safer methods. Two of the largest deposits are unfortunately of very moderate grade, and hence have so far been little worked. No doubt, advantage will yet be taken of them when more systematic grading and dressing is adopted. Four consignments, aggregating 800 tons, from the deposits opened to the date above quoted, yielded from 49.8 to 56.5 per cent. of sesquioxide of chromium. By careful blending a considerable quantity of the abundant lower grade ore could be worked in with the first grade, and a uniform percentage of, say, 50 per cent. maintained.

The ore in this mine was conveyed by gravity from the mountain on a wire rope to the opposite side of the Murrumbidgee River, the bags of ore being suspended by hooks with running blocks.

Shoalhaven.—A sample of chromite, assaying 49.55 per cent., was received as coming from the above locality, but its correctness is very doubtful.

Stony Batta, County Hardinge.—Chromite reported. No particulars.

Tamworth District.—From 20 miles north, 26 miles north-west at Hall's Creek, and from Manilla Range, samples of chromite have been received, yielding from 40.41 to 46.59 per cent.

Tumut District.—See Darbalara, Wagara, Brungle, and Wiangle Parishes, County Buccleugh.

Uralla.—

Vulcan Mine§, Mooney Mooney Range, 4 miles north-easterly of Coolac Railway Station.—As already stated, the group of deposits at the site of this mine were the first opened in the Gundagai district under the name of Wright's Mine. At the time of my first inspection in 1892||, a little surface prospecting or uncovering had been done. The largest deposit thus exposed was about 63 feet by 12 feet at the greatest width, to a depth of 10 feet. The average width of chromite was about 7 feet. About 2 chains further down the slope of the hill another deposit, partly exposed by shallow openings, measured 45 feet by 5 feet. Selected samples from the two outcrops yielded 47.68 and 48.00 per cent. Cr₂O₃.

Estimates of the probable quantity of ore available in these deposits, based on the supposition that they were lens-shaped, and that the vertical extension might be assumed to be equal to about half the horizontal (owing to weathering of the exposed surface) tallied very closely with the actual amount won during mining operations. At the time of my second visit in February, 1895, about 1,200 tons had been raised and dispatched; and, judging from the appearance of the dangerous open workings—which were just then being abandoned on account of risk—the total output would be in the neighbourhood of the former estimate, viz., 2,250 tons.

Wagara Parish, County Buccleugh.—See Kangaroo Mine.

Walcha District.—A sample of chromite submitted from this district assayed 48.26 per cent.

Wallendbeen.—See Berthong.

Welch's Mine.¶—In Portion 173. On the west side of the continuation of the serpentine range, south of Adjungbilly Creek, Messrs. Welch and Springthorpe extracted 220 tons from a deposit, which gave out abruptly, and was abandoned.

Wright's Mine.—See Vulcan.

Wyalong (near).—A sample submitted for assay purported to be from this district, but the information is doubtful. It assayed 37.35 per cent.

Wyangle (Parish of).—See Brungle Creek.

Young District.—Chrome occurs about 20 miles from Young. A little attention has been given to it, and a number of assays made, ranging from 42.46 to 48.35 per cent.

Fulgilbar, Clarence River.—Chromite has been examined which was reported to have come from the ranges between Solferino and the local Cinnabar Mine; and as serpentine occurs in this locality, the report is probably correct.

APPENDIX

* *Ibid.*, p. 127. † J. E. Carne, Ann. Rept. Dept. Mines and Agric. for 1895, p. 127.
‡ J. E. Carne, Ann. Rept. Dept. Mines and Agric. for 1892, p. 154. J. E. C., *Ibid.* 1895, p. 125.
§ J. E. Carne, Ann. Rept. Dept. Mines and Agric. for 1892, p. 154. J. E. C., *Ibid.* 1895, p. 125.
|| J. E. Carne, Ann. Rept. Dept. Mines and Agric. for 1892, pp. 153-9.
¶ J. E. Carne, Ann. Rept. Dept. Mines and Agric. for 1895, p. 126.

APPENDIX 6.

Report on the Geology and Mineral Resources of the South-east Border of New South Wales between Cape Howe and the head of the Murray River.

Geological Survey Branch, Department of Mines and Agriculture,

Sir,

10 July, 1897.

I have the honor to submit the following notes on the geology and mineral resources of the south-east border of New South Wales between Cape Howe and the head of the Murray River.

About the end of 1895 the Ministers for Mines in New South Wales and Victoria decided upon simultaneous prospecting of the Border country between the points mentioned under the leadership of geological surveyors from their respective departments. The original intention of starting operations at Forest Hill on the Main Snowy Range and working towards the coast was frustrated by delays, arising, in the first instance, from the difficulty of arriving at a mutual agreement by the slow process of official communication, and afterwards by press of work accumulating in the interval. The New South Wales party was thus prevented from entering the field before the winter months, when work is not possible in such an elevated tract. The Victorian party began operations near Bendock some two months earlier, but removed to Cape Howe to meet the New South Wales contingent.

The distance between the points mentioned is about 112 miles, and the width of the strip to be tested was fixed at 1 mile on each side of the line, but this was subsequently doubled officially on the Victorian side. The actual width tested, however, in New South Wales became a variable quantity during the progress of the work, being regulated chiefly by the nature of the indications discovered, which frequently led some distance from the Border. The physical features of the country also further increased the area examined by forced detours for transport of the requisite plant and provisions, portions of the route, in fact, being only passable on foot.

In dealing with the geology of the Border country in this report a still wider range has been taken for the purpose of noting features at some distance bearing upon the question—features which special journeys or detours brought within the range of observation.

The boundaries of the geological formations shown on the accompanying map are fairly accurately defined within the prospected area; beyond it they have been sketched only from main points.*

Very interesting fields for detailed geological survey occur in the isolated patch of fossiliferous Upper Silurian strata at Quidong, and in the extensive developments of Devonian Estuarine and Marine beds typically represented in the Nungatta and Yambulla Ranges at the head of the Genoa River.

As the primary object of the joint project was gold discovery, public interests were protected by close reservation of the land within the areas agreed upon.

Previous Mention.

The Rev. W. B. Clarke appears to have been the only observer within the Colony to publish notes on the geology and physical features of the south-east Border country. In his "Southern Gold-fields, 1860" are recorded results of observations made as early as 1851, or twenty-three years prior to the commencement of the Border Survey. Being doubtful at the time of the actual position of the proposed line, definite suggestions were thrown out as to its most suitable termination westward. The actual bearing of the line subsequently surveyed is about 106 degrees magnetic from Cape Howe.

The difficulties still to be encountered along certain portions of the Border deeply impress later observers with a sense of the unbounded energy and enthusiasm of the above pioneer geologist, no less than his published reports testify to the keenness and cosmopolitan character of his observations. It is indeed remarkable how little escaped detection, considering the primitive condition of the country and the difficulties besetting the earliest geological investigation.

Mr. A. H. Howitt has elaborately described and discussed the physical, geological, and petrographical features of the country south of the Border in his report on the Devonian rocks of North Gippsland,† a work which naturally has an almost, if not entirely, equal bearing on corresponding adjacent features on the north side.

Physical Features.

The border country of New South Wales, between Cape Howe and the head of the Murray River, may be roughly divided into three main divisions:

- (a) The rugged, deeply-sculptured mountain region, extending eastwards from Forest Hill on the main Snowy Range to the Delegate River, a distance of about 40 miles.
- (b) The level table-land, stretching for about 24 miles from the Delegate River to the main coast range.
- (c) The country lying between the coast range and the seaboard, covering about 48 miles.

In the coastal division are the conspicuous Nungatta and Howe Ranges; the former was an original eastern escarpment of the table-land, but since separated from it by erosion of the Bondi or Genoa River Valley, which cuts deeply into the underlying granite.

The Howe Range lies close and parallel to the coast, with an elevation of about 1,350 feet.

The most conspicuous named peaks near the border are Mounts Carlisle, Buckle, Waalimma, Yambulla, Nungatta, Tennyson, Black Jack, and the Pilot, in New South Wales, and Mounts Howe, Merragunegin, Delegate, Tingaringi, and the Cobboras, in Victoria.

Forest "Hill," so called, is but an insignificant rise in a saddle of the main range between the elevated Pilot mountain and the Cobboras, which reach an altitude of over 6,000 feet, or about 1,350 feet above Forest Hill.

The drainage of the eastern division is south-easterly, into Mallacoota Lake in Victoria, the streams being the Timbilica or Wallagaraugh River, and the Bondi, White Rock, and Nungatta Creeks, which form the head of the Genoa River.

The streams of the table-land have a northerly flow into the sinuous Snowy River; they consist of the Quinburras, Bendoc or Little Plain River, Hayden's Bog, and the Delegate River.

In

* The topographical features along the Border are shown on the original Border Survey plans.—J.E.C.
 † Progress Reports, Geological Surveys, Victoria, 1876-7.

In the mountain area the drainage is southerly, the channels crossing the border being the Snowy and Ingeegoodbee Rivers; Amboin, Jerry's Flat, Clarke's Cuttamurrah, and First and Second Creeks, all of which are tributaries of the Snowy River. Most of these streams flow in deep, precipitous gorges, between high narrow ranges; the magnificent valley of the Snowy lying nearly 3,000 feet below the summits of the bounding ranges.

The soil of the eastern division, with the exception of the Bondi and Nungatta Valleys and smaller areas on the Wallagaraugh and Boyd's Creek, is of poor quality, being loose and sandy. The table-land affords some excellent grazing land, whilst the mountain country is generally rocky, cold, and poor; the exceptions embracing small areas in the Snowy and Ingeegoodbee Valleys, and some of their tributaries.

On the crests of the highest range, on the east margin of the Snowy Valley, abundant wattle growth testifies to the excellence of the soil covering. It will be understood that the foregoing notes apply only to a narrow strip of border land.

The climate of the table-land is excellent, notwithstanding the duration of winter, the length or severity of which is less objectionable than unseasonable frosts, which frequently seriously interfere with the interests of farmers and fruit-growers.

The climatic conditions are admirably suited to the dairying industry, provided a proper system of winter feeding and shelter be substituted for the present shiftless method of summer abundance and winter starvation.

The climate of the mountain region is naturally very rigorous for several months of the year, with the exception of the valley of the Snowy, which lies far below the level of the table-land, and thus maintains a temperature that precludes snow lying within it. The very restricted area of the river flats, and general inaccessibility render the valley of no importance for settlement.

Geology.

The following formations are represented in the border country:—

Sedimentary and Organic	...	{	Tertiary and Recent.
		{	Devonian.
		{	Upper Silurian.
		{	Lower Silurian.
Igneous	... ..	{	Volcanic. Basalt.
		{	Intermediate. Diorite?
		{	Plutonic. Granite and Porphyry.

Discarding the Recent and Tertiary alluvial deposits, from Cape Howe westwards the geological formations occur in the following order:—From the coast to the Howe Range, Devonian, with granite outcropping on the west flank, thence Upper Silurian, with patches of Devonian, to about 120 chains west of Eden-Genoa Road, where granite is met and extends west to Yambula and Nungatta Ranges, which are formed of Devonian strata; west of them granite again reaches the surface in the Bondi Valley, and continues to the Main Coast Range. Lower Silurian rocks form the table-land, and extend, with two interruptions of granite at the Irondoon Range and west of Hayden's Bog, to the valley of the Snowy, which is excavated in granite. Between the granite of the Snowy and Ingeegoodbee Rivers, and between the latter and the porphyry at the head of the Murray River at Forest Hill, two thin belts of sedimentary rocks are interposed, probably, also, of Lower Silurian age. In parts gneissic and schistose characters are very pronounced, especially between the Ingeegoodbee and Snowy River granites in the vicinity of the Pinch River.

Marble limestone forms a small outcrop on the east side of Pilot Creek, which was the furthest point reached to the westward.

Lower Silurian.

Rocks of this age were first encountered on the Main Coast Range, on the west boundary of parish Bondi, county Auckland, where they constitute the eastern margin of the Monaro Table-land. At this point they reach the surface rarely from under a heavy covering of soil and conglomeratic debris, the latter marking the previous extension of the Devonian formation so massively developed in the Nungatta Range on the opposite side of the Bondi Valley. The country hereabouts is thickly covered with jungle extending westwards to near the Quinburra Bogs. Fortunately for the border prospecting operations, recent fires had cleared large areas of the undergrowth and fallen rubbish, rendering the surface visible.

Along the top of the coast range in the parish of Lawson, county Wellesley, the rocks are freely exposed, as they also are on the ridges at Mount Tennyson Trigonometrical Station. They consist of fissile slates, schists, and sandstones. Within the Bondi granite two narrow outcrops of sedimentary rocks occur. In that, farthest within the granite area, at Hopping Joe Swamp, gneissic character have been developed.

A special feature of the Coast Range outcrops is the abundance of quartz occurring in short, bunched veins, and reticulating threads, the debris of which strews the surface of the ridges. The quartz is apparently barren, though fine colours of gold are sparingly distributed in places on the bedrock under the alluvial flats.

About 3 miles within the eastern margin of the table-land, an outcrop of carbonaceous slate, a few square feet in area, was discovered, which yielded a suite of graptolites identified by Mr. W. S. Dun, Assistant Palæontologist, as undoubted lower Silurian types. Careful search failed to reveal any further outcrops in the neighbourhood containing recognisable fossils, owing to the extent to which weathering had bleached the slate and destroyed all traces of organic structure. Fortunately more extensive discoveries were subsequently made in the parishes of Currowang, Wollondibby, Tingaringi, and Alexander, in the county of Wellesley, which furnished additional evidence as to the age of the formation.

From a careful study of all the fossils collected, Mr. Dun is of opinion that the strata containing them may be approximately correlated with the graptolitic slates of north-eastern Gippsland, recently described by Mr. T. S. Hall.* The species also indicate that the strata are younger than the graptolite beds of Castlemaine and Bendigo.

The

The following forms were identified from the first discovery on the coast range:—*

- Dicranograptus furcatus. Hall.
 " (?)
 Didymograptus caduceus. Salter (?)
 Dicellograptus sp. ind.
 Diplograptus, cf. mucronatus. Hall.
 " cf. rectangularis.
 Phyllograptus.

Rocks of a slaty and schistose character persist westward to McLaughlan's Flat, parish Currowang, with frequent alternations of fine-grained sandstone. Considerable metamorphism is manifested near Delegate, arising from the granite intrusion, just west of Hayden's Bog. Delegate Hill in Victoria is distinguished by the metamorphic character of its rock structure, jasperoid cherts and quartzites being the prevailing types. Westward from the Delegate River arenaceous characters become more pronounced predominating over the argillaceous.

From Currowang Creek to Tingaringi Range, quartzites are largely developed in extensive foldings, so extensive in fact as to impart almost horizontality to the anticlinal layers forming the summit of the range in Victoria. Usually the quartzites are very massive but occasionally are finely laminated. Intercalated with the massive quartzites are argillaceous bands—frequently very ferruginous—destitute of apparent cleavage or bedding planes, instead of which irregular, semi-conchoidal division planes have been set up having marked slickensided faces. This structure is apparently identical with similar division planes in compact clays, serpentine, chromite, and Noumeaite, noted by Professor Liversidge, and for which he proposed the term "petaloidal" from the resemblance of the surfaces to the curved and fluted petals of an unopened flower-bud.†

The structure in the present instance has, no doubt, resulted from great folding stress acting on plastic material intercalated in massive, comparatively unyielding sandstone. An incipient stage was noticed in bands having rough cleavage.

At rarer intervals in the quartzitic areas extensive beds of highly cleavable black slate occur containing abundant remains of graptolites. Outcrops having considerable longitudinal extension were noted in the parishes of Currowang, Wollondibby, Tingaringi, and Alexander.

The second discovery of these fossils was made in the first-mentioned parish near the Border line on the old Brown's Camp, Gippsland track. Here the outcrop is much weathered, the surface being covered with loose shaly fragments of a bluish-grey colour, a sure indication of the graptolitic slate. About 2 miles south of the Border a creek-channel has been eroded in the unaltered slate, and organic remains are most abundant. Northerly the slate can be traced through Brown's Camp until it is lost in the granite of Wollondibby, a distance of several miles.

From the outcrop the following forms were identified by Mr. Dun:—

- Diplograptus cf. palmeus. Barrande.
 Dicranograptus sp.
 Dicellograptus.

These forms were represented in ferruginous lines on the bleached slate. On the unaltered slate the markings are milky-white or graphitic.

The third discovery of graptolites was in the parish of Tingaringi, and the fourth about 9 miles north-westerly in the parish of Alexander, at Stockyard Flat Creek. It is probable from the trend of the beds that these occurrences are points of a connected outcrop.

Later a fifth discovery was made in the parish of Wollondibby, a little east of Tingaringi Range.

At Stockyard Flat the unaltered slate exposed in the bed of the creek is highly fissile and capable of being split in large slabs. It is, however, too carbonaceous, and too liable to bleaching and rusty stainings on exposure to be of economic importance in the future. The lower beds of gravel and boulders in the creek have been converted into hard ferruginous cement, by the deposition of ferric oxide from the chalybeate waters escaping from the slate cleavages. The strata strike north 3° west, and dip west at 35°, but both strike and dip are subject to great local variation.

The distance between the first and fourth discovery is about 40 miles.

The following forms were identified from parish Tingaringi:—‡

- Diplograptus cf. palmeus. Barrande.
 Didymograptus sp.
 Dicranograptus furcatus. Hall.
 Dicellograptus sp.

From Stockyard Flat, parish Alexander:—

- Diplograptus cf. palmeus. Barrande.
 Diplograptus sp. (rectangularis McCoy?)
 Dicranograptus furcatus. Hall.
 Dicellograptus sp.
 Dicellograptus extensus. Hall.

Upper Silurian.

Prior to the discovery of graptolites all the sedimentary rocks of the border west of Nungatta were classified as Upper Silurian on Mr. Clarke's correlation of them with certain fossiliferous beds at Quidong, about 15 miles north from the Border, and 13 miles from Delegate. The latter consist of stratified limestones with intercalated mudstones and quartzitic sandstones, chiefly occupying a synclinal trough in the underlying massive quartzites and slates, which rise outside the margin of the limestone area

* Records Geol. Soc., N.S. Wales. Vol. V, Part III, p. 126. 1897. † Minerals of New South Wales, Liversidge, 1888, p. 106.
 ‡ Mr. Dun subsequently identified sponge remains amongst the fossils, which he referred to *Protospongia*, resembling *Protospongia cyathaformis*, Dawson and Hinde. See Proceedings Linnean Society, N.S.W., vol. 22, pt. 2, pp. 436-7.

area to considerable elevations especially to the south and west, imparting a basin-like appearance to the locality. The fossiliferous beds, however, are not confined to the trough, but ascend the opposite faces of the enclosing anticlines; conforming to the dips of the basal beds, a fact which points to conformable deposition prior to folding stress. Alternate banding or intercalation of quartzitic strata (similar to the underlying) in the lowest limestone beds also affords evidence of progressive sedimentation. The order being apparently deposition of immense thicknesses of clean sand now represented by the massive quartzite, then marine organic accumulations represented by the coral and shell limestones, which were several times interrupted by further inrushes of sand; finally muddy sediments mingled with the organic growths and gradually covering and destroying them.

The whole question of gradual and undisturbed passage from Lower to Upper Silurian conditions and life forms turns upon the identity of the lowest quartzite and slate beds of Quidong with those intercalated with the graptolite slates of the Border; definite settlement of this point is dependent upon more detail survey, but from observation extending over a large area of the lower rocks, and from lithological resemblance, I am of opinion that they are identical; and that between the graptolite slates and the Quidong beds will be found interposed a considerable thickness of quartzite.

Mr. Howitt's description of the Buchan and Bindi limestones of Gippsland tallies very closely with the physical features of Quidong, even to the metallic contents of iron, copper, lead, and silver, but he recognised a great break between the above limestones and the Lower Palæozoic (graptolite) rocks; the break being represented by the great thickness of Snowy River porphyries and their associated tuffs and agglomerates. Into New South Wales I believe these rocks do not extend for any distance, hence during the interval represented by the intrusion of the porphyries and subsequent volcanic activity represented by the tuffs and agglomerates, there may have been no corresponding break in the order of sedimentation at Quidong, though cessation may have occurred.

The crystalline limestone of Limestone Creek, on the west of the Main Range, containing *Palæopora*, is regarded by Mr. Howitt as probably of Upper Silurian age, and therefore older than those of Buchan and Bindi, which have been classed as Middle Devonian on Prof. Sir F. McCoy's identification of *Spirifera levicostata*, and the scale of a placodermatous fish.

A small outcrop of crystalline limestone adjoining the porphyry at Pilot Creek about $1\frac{1}{2}$ mile west of Forest Hill, coincides in its physical characteristics with the occurrence at Limestone Creek rather than with that of Quidong.

As regards the age of the Quidong beds, their very abundant fossil fauna possesses both Upper Silurian and Devonian facies. Prof. De Koninck, to whom Mr. Clarke submitted a number of Quidong fossils, divided them into Upper Silurian and Devonian according to their respective resemblance to well-known European types of either period. The classification was as follows:—*

Devonian	...	...	Campophyllum vermiculare. Goldf.
			Cyathophyllum Selwyni. De Kon.
			Alveolites obscurus. De Kon.
			Favosites fibrosa. Goldf.
Upper Silurian	...	...	Syringopora serpens. (?) Linn.
			Chonetes striatella. Dolman.
			Meristella tumida. (?) Dolman.
			Chromus Murchisoni. De Kon.

The following fossils from Quidong in the collections of the New South Wales Geological Survey were obtained by the Collector, Mr. C. Cullen:—

Chondrites.	Rhynchonella.
Mucophyllum crateroides Eth. fil.	Orthis elegntula, Dal.
Favosites.	Actinopteria.
Heliolites.	Pterinea.
Halysites catenularia.	Orthonota.
Vermipora.	Paracyclas.
Tryplasma Lonsdalei.	Mytilarca.
Amplexus.	Bellerophon.
Strophomena sp.	Holopea.
Spirifer Yassensis, De Kon.	Cyclonema.
Pentamerus Knightii.	Orthoceras.

From the occurrence of the above fossils the Quidong beds may probably be correlated with the fossiliferous strata at Yass, containing a similar blending of Upper Silurian and Devonian types.

The occurrence of a placodermatous fish plate at Buchan, in Gippsland, is paralleled at both Yass and Goodradigbee, where similar plates have been found.

The sub-order Placodermata is characteristic of the Devonian period in Europe, but is represented also in the Silurian.†

Devonian.—It is satisfactory to record that at last some palæontological evidence has been obtained whereby to fix the horizon of the great series of nearly horizontal strata, which attain their maximum development (approximating from 1,000 to 1,200 feet in thickness) in the Nungatta and Yambulla Ranges next the head of the Genoa River, and which occur in continuous beds and denuded patches along the coast from Cape Howe to north of Merimbula.

This formation consists of alternations of quartz-pebble conglomerates, grits, sandstones, and clay shales. The conglomerates are frequently very massive. The clay shales at the head of the Genoa are destitute of the rough cleavage which distinguishes those in the coast section at Eden and Pambula, which no doubt arose from the lateral pressure of the intrusive Pambula porphyry and felsite. In the Nungatta and Yambulla Ranges the shales which alternate with the arenaceous and conglomeratic beds, from their inferior resistance to weathering, undercut the harder strata which fall at vertical joint partings, and thus maintain the perpendicular cliff faces which characterise the scenery of these ranges.

From

* Remarks on the Sedimentary Formation of N.S.W. Rev. W. B. Clark, 1873, pp. 129-32.
† Manual of Palæontology, Nicholson and Lyddeker, p. 962.

From the abundant—though mostly ill-preserved—remains of land flora in the clay shales and finely laminated sandstones, it is evident that estuarine conditions prevailed during deposition of at least the major portion of the series. Recent discovery of shell impressions in the lowest division of the formation near Eden points to more marine conditions at the commencement. These fossils unfortunately are fragmentary, but one perfect valve impression has been identified by Mr. Dun as an undoubted coarse-ribbed variety of *Rhynchonella pleurodon*, a characteristic fossil of the Devonian marine beds of Sugarloaf, near the Clyde River, and Mt. Lambie near Rydal.

Mr. Clarke, on pages 166–9 of his "Southern Gold-fields," pointed out the previous wide range of this formation, which, in the absence of fossils, he described as of doubtful age, leaning, however, to the opinion that it probably belonged to the Carboniferous period. The discovery of fossil plants identical with forms previously determined from exactly similar beds at Iguana Creek and Mitchell River, in North Gippsland, described by Mr. Howitt,* removes any doubt as to the age of the formation in question. Mr. Howitt's description of the strata at the above-mentioned localities fits exactly those occurring on both sides of the border at the Genoa River. There is, in fact, abundant evidence of its previous wide extension, not only southerly into the neighbouring colony, but easterly to the coast and northerly to at least Wolumla in the coast country, and possibly Rock Flat, near Cooma, on the table-land. Mr. Clarke, indeed, was of opinion that it extended from the head of the Genoa to the head of the Shoalhaven (Southern Gold-fields, p. 167), and progress of the geological survey may yet confirm the correctness of his surmise.

The treeless, stony, hills east of the town of Bombala, and Bald Hill between that town and Bondi, are outliers of the same formation. It is also highly probably that the isolated masses of quartzitic conglomerate forming such conspicuous features in the landscape of the basalt downs at Rock Flat, and close to the town of Bombala on the south side, also formed part of the same strata. The intense silicification of these isolated masses may be due to the cementing action of siliceous springs, following the volcanic activity represented by the basalt out-flow, which covers the country in the localities mentioned, and forms the Downs, so characteristic of this portion of the table-land.

Mr. Clarke attributed the change to contact with the basaltic rocks, but evidence of considerable metamorphism of a similar character is afforded in the undoubted Devonian out-lier already mentioned at Bald Hills where the basalt flow has not reached.

In the clay shales, which are frequently strikingly red-coloured and ferruginous, abundant obscure impressions of plant remains occur both at Yambula Peak and further west on the Genoa River. In the greenish-grey arenaceous shales and finely laminated sandstones the impressions are better preserved. Amongst a number of specimens collected at the above localities, Mr. Dun was able to identify the following forms:—†

Archæopteris Howitti. McCoy.
Cordaites australis. McCoy.
Sphenopteris Carnei, sp. Nov.
Pecopteris (?) *obscura*, sp. Nov.

Igneous.

The granites and porphyries in the neighbourhood of the Border in the Snowy River Valley and Main Dividing Range have been exhaustively discussed, both physically and petrographically, by Mr. Howitt, in his important work on the Devonian rocks of North Gippsland;‡ reference to it will, therefore, be sufficient for description of the same rocks extending across the Border into New South Wales. Notice of the igneous rocks in this report will be confined to little more than mention of their distribution.

The main outcrop of granite occurring on the Border lies between the Nungatta Range and the Eden-Genoa Road; this mass represents the southern extension of the Bega, Wolumla, and Wyndham granite. It is intersected by numerous dioritic dykes, but these do not appear to have any appreciable influence on the local gold occurrences.

At the Irondoon Ranges, west of the Little Plains River, hornblendic granite occurs as a narrow intrusion, which pinches out about 1½ mile north of the Border. The granite occurring along the Delegate River, west of Delegate, has had a marked metamorphic action on the intruded sedimentary rocks, as already recorded.

The junction of the granite of the Snowy River Valley with the sedimentary rocks exhibits gradual and intimate blending, the line of contact being apparently entirely obliterated. Mr. Howitt records similar contact alteration in North Gippsland.

Of the granites of the Border it may be stated that they differ essentially from those of the auriferous areas at Braidwood, Adelong, Tumbarumba, Wyalong, and Uralla, and other localities where payable gold deposits occur.

The quartz and felspar porphyry at the head of the Murray River also differs essentially from the Eden porphyry, which has quartz crystals porphyritically developed, whilst the former has felspar in addition.

Volcanic rocks, as before stated, are extensively developed on the table-land about Cooma and Bombala, but do not reach the Border. As they have been described by Mr. Clarke in his "Southern Gold-fields," the only fact in connection with them that need be mentioned here is the occurrence of drift pebbles under the basalt sheet near Bombala. This circumstance naturally infers the existence of old drainage channels (leads), covered by the volcanic outflow, in which gold may be sought.

The presence of well-worn pebbles cannot, however, in this instance be always assumed to be evidence of leads, because of the one-time existence of the Devonian conglomerates over the locality prior to the basalt outflow. The weathering and denudation of the conglomerates would account for a drift-like sheet of pebble debris *in situ* on the level surfaces.

That earlier drainage channels or leads do actually occur under the basalt cover cannot be doubted, but their richness in gold would depend almost entirely upon the amount of it previously distributed through the conglomerates, which to judge from the priority of present streams traversing the undenuded areas at the back of the Genoa River, is infinitesimal.

Mineral

* Geol. Surv. Victoria, Geog. Rept., 1876-7, p. 210.

† Geol. Surv. Records, N.S. Wales, Vol. v, pt. iii, pp. 117-21.

‡ Prog. Rept., Geol. Surv., Victoria, 1876-7.

Mineral Resources.

As before stated, the chief object of the expedition was gold discovery; the result, however, is decidedly disappointing, being of negative value only, in proving the remote probability of any extensive auriferous deposits existing within the area tested. From the nature of the country and the well-known fact of new finds, even in old and well-trying fields, it will be unwise to regard the testing operations as exhaustive as regards reefing; within the gold-bearing belts it is, therefore, only reasonable to anticipate limited discoveries from time to time, especially in localities where the bed-rock is obscured by heavy burdens of soil, as at Brown's Camp.

As regards auriferous alluvial deposits, on the other hand, it may, with some confidence, be predicted that no important find will be made within the Border area.

Fine colours of gold were obtained at the head of Nadgee Creek on the east fall of the Howe Range. Lower down the channel gold has been won in small quantities at intervals, a small rush at one time ensuing, which, however, soon terminated, a few ounces only being obtained. About the commencement of the Border prospecting a well equipped party from Victoria was engaged on a further test of this locality, but the effort was fruitless.

About $2\frac{1}{2}$ miles from the Border, on the east fall of the same range, gold-bearing reef-stone in granite was discovered by Mr. Donnelly, of Wombeyan River, about eighteen months ago. Several shallow shafts and trenches have been opened on small veins, and a three-head stamper battery erected and worked by water power, the best results reported being about 5 dwt. per ton. Aid has recently been granted for the purpose of sinking on a larger adjacent reef.

West of the range very promising looking pyritous quartz reefs were prospected in slate country, but no gold could be obtained either by doling or assaying. A few colours, however, were found in some of the creeks traversing the slate, which afforded excellent bars or riffles for gold catchment.

On the bars and in the made banks of Royd's Creek—a tributary of the Wallagaraugh River—fine colours occur largely associated with black sand (chiefly ilmenite). Several shafts in the most favourable sites afforded no better results.

Near the crossing of this creek by Smellie's Track a small waterfall occurs over an outcrop of intrusive quartz felsite, which approximates in physical character to portions of the Pambula rock. Similar outcrops occur on the west bank of the creek and again on the east of the Wallagaraugh.

About 20 chains south of the Border a short gully running into the river, bears the name of "Golden" from the accidental discovery by an early settler of a small specimen of gold on a bar in its bed. Subsequent prospecting at intervals failed to discover any payable deposit, though a few ounces are reported to have been won. This site received special attention from the Victorian Border Party. Mention is made of it because of the local belief that gold exists in quantity in the vicinity.

Between the river and the Eden-Genoa road gold could not be found in the channels which deeply intersect the intervening country and lay bear the bed-rock in frequent bars.

About 1 mile west of the road a fine colour was obtained at a depth of 45 feet in loose sandy drift, heavy influx of water unfortunately prevented the bed-rock being reached, causing temporary abandonment to allow of the possibility of the ground draining on cessation of the rainy season, and provision being made for bailing and timbering. From this shaft also a few particles of ruby tin oxide were also obtained.

About two months later a second attempt was made to bottom, with the assistance of two of the Victorian party, in a larger shaft in which sinking and bailing could proceed concurrently; below 50 feet the ground became of the consistency of porridge, and oozed through the timbering. At 55 feet the pressure became so great that the timbering gave way bodily before the bottom was reached, fortunately without injury to the men engaged. Further test was abandoned in view of the exceedingly heavy and continuous rainfall, which, though not affecting the water-level in the drift by direct vertical soakage, was supplying it copiously at the intake on the flanks of the impervious high lands west and south. In a dry season, with proper bailing appliances and heavy timbering, the ground could be bottomed; but, judging from the poverty of the surrounding country, it is doubtful whether any large outlay would be justified.

An attempt made in a neighbouring flat some thirteen years prior to the Border Party's efforts was equally unsuccessful, though a greater depth—70 feet—is reported to have been reached.

The sinking in the latest trial shaft was through coarse, gritty sand, with pebbles of agate and chalcedony and fragments of rotten slate or shale. The agate and chalcedony are unlike any vein fillings in the surrounding watersheds, and evidently have been derived from the conglomerates which formerly covered the locality.

Other layers passed through at 55 feet consisted of loose, coarse quartz grains, with soft felspathic material between the particles, exactly similar to the coarse grits exposed in the coast section east of Eden. So closely, in fact, do the two occurrences coincide in the nature and mode of arrangement of the constituents that doubts were engendered as to whether the shaft was being sunk in a true drift channel or in decomposing beds of Devonian grits and conglomerates. The surrounding evidence of extensive denudation is, however, confirmatory of the drift supposition.

A short distance north from the trial shaft a small specimen of gold was found against a bar by a local resident in a small creek draining into the Wallagaraugh; the site was afterwards prospected, but a few small specks only rewarded the effort, as also that of the Border Party.

About half a mile west of the deep ground granite occurs, and forms the surface rock to the Nungatta Range, with the exception of a narrow belt of sedimentary rock running north from the Border to Mount Waalimma. It is intruded by numerous dioritic dykes on the east of Mount Buckle, but no reefs could be detected at or near the junctions, nor any gold in the intersecting channels.

About $1\frac{1}{2}$ mile north-west of Mount Buckle, near the Border, one of the party—E. Leonard—discovered gold in quartz veins in granite. On the surface the veinstuff consists of bunches and strings of quartz, with no defined walls, the main strike being apparently about N. 50° E. The visible gold occurs as extremely fine particles in cellular cavities after pyrites, also in the solid quartz. Pyrites, and rarely galena, and traces of manganese oxide, occur in the veins, portions of which have a very kindly, gossany appearance. A large selected sample of the most promising was assayed for a yield of 18 dwt. 12 grs. of gold, and 4 oz. 7 dwt. 2 grs. of silver per ton. The average yield would probably approximate to 5 or 6 dwt. of gold per ton.

As the discovery was worthy of further test, authority was obtained for directing local attention to it, which resulted in the ground being taken up under miners' rights.

The

The Timbilica Reefs, occurring under somewhat similar conditions, about 6 miles north-westerly, have already formed the subject of a separate report.*

From the Mount Buckle reef no further gold discoveries were made until the Main Coast Range was reached, where fine colours were found in numerous places on the bed rocks in shallow ground; nothing, however, of any importance could be traced. Several likely-looking pyritous reefs were opened, but yielded no prospects by loaming or dollying.

About 3 miles further west the main top of the Coast Range trends in a north and south direction; here the bed rocks—slates, schist, and sandstone—rise to the surface. Quartz is very abundant along the range, seldom, however, occurring in well-defined reefs, but chiefly in bunches and threads, the rubble from which covers the surface. It would appear from the Border Party's tests to be absolutely barren, though very fine and few colours of gold are obtainable on the bed rock in the neighbourhood.

At the head of Doogood's Bog, and along the Border towards the Quinburras, fine colours are met with in the alluvial. Along the latter, and the Bendoc or Little Plain River, shafts were sunk for the purpose of testing the correctness of the local belief that portion of the gold in the main channels had been derived from adjacent reefs and alluvial feeders; but neither in the quartz reefs nor in the flats leading into the auriferous channels could gold be obtained.

The evidence afforded by the nature and mode of occurrence of the gold within the present channels, and the terraces formed by their earlier levels, is conclusive as to its original source being high up in the flanks of the Coast Range in Victoria, in which these streams rise. The gold particles near the heads are coarse and frequently associated with quartz; down stream the size decreases proportionately with distance from the source until extreme fineness is met.

The Rev. W. B. Clarke reported gold in this locality as early as February, 1852, but it would appear from local report that little work was done prior to the advent of Chinese, who were driven by the Europeans from the Kiandra gold discovery of 1859.

A few Chinese yet eke out a living in the river beds, both in New South Wales and Victoria, and rich patches are still occasionally discovered by Europeans in the virgin ground near the source of the streams in the latter Colony.

The terraces formed of stranded drift at earlier and higher levels have received a little attention in places, but generally speaking these would only be remunerative on a large scale of gravity sluicing, which elevation and isolation render impracticable.

Lower down, one of the main channels—at Nelbothery—a large amount of capital has been fruitlessly expended in a powerful pumping plant for sluicing purposes, owing to the all-too-common cause in mining of insufficient preliminary testing prior to expenditure.

West of the Little Plain River a narrow intrusion of hornblende granite penetrates the lower Silurian slates and sandstones of the Irondoon Range for about $1\frac{1}{2}$ mile from the Border. A creek channel cutting across the intrusion affords an interesting section. No trace of quartz veins could be detected at or near the junction. A few fine colours of gold were found against the excellent bars in the creek bed below the granite.

In the southern extension of the Irondoon Range, about $1\frac{1}{2}$ mile south of the Border, gold occurs associated with mispickel in very thin quartz leaders in slate and schist, but no trace of a similar occurrence could be discovered north of the Border, though a few fine colours were found in the alluvium on the west fall of the range.

Large white quartz reefs are common between the Quinburra and the Delegate, but are entirely barren.

A few colours of gold are reported from Hayden's Bog, near Delegate, but there is little scope near the Border for anything important to occur, as the channel is shallow and rocky, and the made ground very limited. West of it is a high range of slate, sandstone, and granite, which has been cut through by the Delegate River, close to its junction with the Bog.

In the rocky road crossing at the junction a thin quartz reef carrying a large percentage of mispickel outcrops, but assay proved it barren.

Below the crossing of the Delegate at the Border, a little gold was obtained from terraces at some distance from and above the present channel level. The facts recorded of the Quinburras and Little Plain River apply also to this stream.

West of the Delegate River is an auriferous belt known locally as Brown's Camp, extending for about 4 miles along the Border to near Currowang Creek, and northerly for about an equal distance. In this area several short shoots were discovered and opened at various times, prior to the advent of the Border Prospecting Party, viz., the Concordia, Blue Bell, and Southern Cross. South of the Border numerous similar reefs occur in the direction of Bonang and Bendock, the nearest being the Coolgardie Pioneer and Bonanza, and the "Luck of Roaring Camp," recently discovered by the Victorian Border Party.

The most recent finds at Brown's Camp were Mead's, Latty's, and Parker's reefs, the two latter being discovered by the Border Party. Brief descriptions of the reefs mentioned will illustrate the nature of the local gold occurrences. "Concordia" reef, discovered about two years; situated in a low ridge, about 6 chains north of Border; strike N. 55 E.; tunnel from south side driven, under aid, 210 feet from end of open cut 14 feet in length; approaches reef at less than a right angle; abandoned before reaching it on refusal of further aid. Method of testing ill-advised, tunnel level being but 45 feet below cap of reef, and entrance distant 315 feet at a right angle. Later a shaft was sunk 75 feet on the reef, which is reported to have pinched out. Surface stone crushed 12 dwt. per ton, but the yield decreased with depth.

"Blue Bell" reef occurs in west end of Black Jack Range, about $3\frac{1}{2}$ miles north from Border. Consists of thin uncertain leaders in the cleavages of slate. Gold originally discovered at surface in rubble from the leaders. Aid was granted to sink, but for some unaccountable reason the shaft was carried down 75 feet in bank country, away from the auriferous leaders.

A short distance below the shaft down the northern slope of the ridge a block of auriferous quartz was found outcropping *in situ*, but the gold was not traced away from it in the shallow opening that was made. Lately a Mr. Brown has opened another small leader at the original discovery on the ridge. This site is worthy more systematic test than has hitherto been given it, though it is doubtful if the veins will converge or increase in thickness.

"Southern

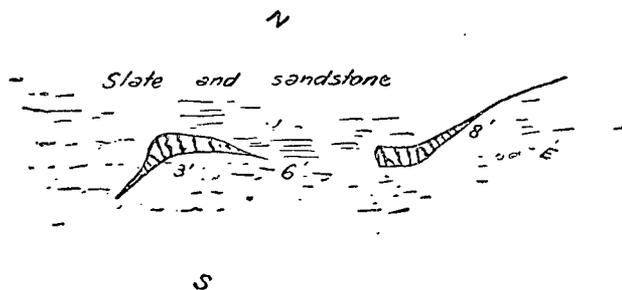
* Ann. Rept. Dept. of Mines and Agriculture, 1896, pp. 122-5.

"Southern Cross" reef also occurs in the Black Jack Range, about $2\frac{1}{2}$ miles from the Border. It strikes N. 20° W., and dips N. 70° E. at 65° , and varies in thickness from 1 to 6 inches, averaging about 2 inches. Vertically and horizontally it did not exceed about 25 feet. Nine tons yielded 17 dwt. per ton, which exhausted the supply.

"Mead's" reefs are situated near Pipeclay Creek, about 50 chains from the Border. The north reef strikes about N. 60° E., and the south N. 27° E., at about 5 chains apart. Both reefs, so far as opened, appear to be lens-shaped. The north reef has pinched vertically at a few feet from surface, the other at 35 feet, though the quartz block is reported to be dipping north from the shaft. The greatest thickness of these reefs was about 2 feet, but their lengths do not appear to exceed 20 or 30 feet.

The first crushing of 10 tons yielded 32 oz., and the second of 14 tons yielded 14 oz.

Latty's reef was discovered on the 5th April, about 21 chains from the Border, in the direction of Mead's find. The surface prospects were excellent, but were not maintained with depth. The reef proved very short and erratic, as will be seen from the following plan:—



The south end was almost vertical to 9 feet, to which depth it was opened, but the gold was not going down. Trenching failed to reveal any further development of veinstone in the vicinity.

Two other reefs were opened between the above and Mead's reefs, one very pyritiferous. Neither yielded free gold in either loam or dolly tests, but on assay the pyritous stone yielded at the rate of 1 oz. 14 dwt. 20 grs. of gold per ton. The absence of free gold from the rubble and loam is rather peculiar, for it is invariably found in the waste of gold-bearing reefs, and such has been the experience of the Border party hitherto. Samples from a number of pyritous veins, from which no loam prospects could be obtained, were assayed in the departmental laboratory with confirmatory results.

Gold was traced by loaming up a ridge close to the border, west of Latty's reef to its source in the joints of sandstone country; a considerable amount of work proved that nothing workable or permanent existed.

On 17th May Parker's reef was struck about 7 chains east of the Brown's Camp, Gippsland track, and about 2 chains from the border. The rubble and loam prospects were exceedingly good, but, unfortunately, the gold was confined to a shoot not exceeding a foot in length. Trenching on the strike revealed a massive reef up to 2 feet in thickness, extending for some little distance, but no other gold-shoot could be detected. The site is now receiving local attention.

Several parallel reefs were opened close to the above, but proved barren.

Along the ridge followed by the Brown's Camp, Gippsland track, across the Border, for years past loam prospects have been obtained by prospectors, and aid was granted to sink and cross-cut in some ironstone veins in the sandstone country, which was erroneously regarded as the probable matrix of the gold in the loam.

About 25 chains south from the Border the Victorian party discovered two thin auriferous veins, but extensive costeening to bedrock along the Border failed to reveal their extension into this Colony. About 80 chains south of the Border the same party discovered a large reef—the "Luck of Roaring Camp"—rich stone was obtained in the cap of the reef, but little is yet known of the extent of the gold-shoot in the absence of any developmental operations.

In McLaughlan's Flat, which heads near the Border, close to the Gippsland track already mentioned, and falls gently northward, colours of gold are obtainable at a shallow depth on the bedrock. Near its head shafts have been sunk, some very recently, others evidently years ago; the latter extending for some feet into the bedrock.

Above these workings quartz is plentifully strewn on the surface, but apparently barren. Trenching to bedrock across this locality proved at least the non-existence of any extensive gold reefs.

In several additional instances loam trails were traced to their sources at Brown's Camp, which, however, were unworkable.

The experience of the Border party in this locality is in accord with that of earlier prospectors touching the unreliable nature of the gold occurrences. Not only are the gold-shoots extremely short and uncertain, but the quartz veins containing them are equally so. Apparently not more than one shoot occurs in each reef, at least, such has been the experience hitherto. In fact, the quartz veins are seldom more than a few feet in length, and the shoots rarely the length of the shaft, generally much less. The gold-bearing stone is frequently rich, yielding up to several ounces per ton, but a few tons usually exhausts the supply.

Numerous small finds will undoubtedly be made from time to time, but extensive ones can hardly be expected.

West of the Brown's Camp auriferous belt the country along the Border consists principally of massive quartzites with intercalated graptolite slates at intervals. Between Brown's Camp and Tingaringi Range no trace of either reef or alluvial gold was obtainable.

Between Tingaringi and the Snowy River, a distance of $16\frac{1}{2}$ miles, the only tests made were confined to a few trials of likely-looking bars in Amboin, and other creeks during a flying trip ahead; the results were very discouraging, not a colour being raised. Evidence of earlier prospecting was noted in a terrace of Jerry's Flat Creek in Graham Collins' Gap; the testimony of one of the prospectors—since met—was unfavourable.

From

From the Snowy River to Pilot Creek, west of the Main Range, prospecting operations were continued systematically; in this area also previous prospecting was manifested by numerous shallow shafts in the main flats and channels.

In the Snowy River gravels both at present and former levels a little fine gold is obtainable, but not in payable quantities.

In the Ingeegoodbee River and First Creek channels a few fine colours occur abundantly associated with black sand, chiefly ilmenite.

Fairly extensive drift-beds and terraces occur along Pilot Creek—one of the heads of the Murray River—but are almost barren.

To reach the Snowy River from Brown's Camp, with pack-horses, for the purpose of testing the most elevated tract before Winter, it was necessary to make a detour *via* Wollondibby, Merambalgo, and Byadbo, a distance of about 40 miles; the greatest distance from the Border being 10 miles.

At Wollondibby and Merambalgo granite occurs, the rest of the distance being over Lower Silurian sedimentary rocks until the Snowy Valley is reached, where granite again forms the surface rock.

Near Stockyard Flat Creek, between Byadbo and Merambalgo, a large, well-defined quartz reef occurs. Where it cuts the black graptolite slate of the creek, and of Little River, into which the latter flows, it is highly brecciated with slate fragments, resembling the Hillgrove stone. It is, moreover, exceedingly porous and gossany places, in others pyritiferous. The thickness varies from 4 to 20 feet, and the strike outcrop traceable for at least a mile. Numerous loam trials along the entire outcrop, and frequent dollings of most favourable-looking portions failed to reveal even a colour of gold; though a few were obtainable in the bed of the Little River, which the reef crosses, and in which huge boulders and smaller blocks of the reef-stone are strewn. Four or five dwt. of gold per ton in this huge reef would render it one of the most important in the Colony.

The above reef is very noticeable, because of the marked absence of quartz between Tingaringi and the Snowy.

The streams hereabouts fall northerly from the range forming the watershed of the Amboin, Jerry's Flat, and other creeks crossing the Border southerly already mentioned.

Copper.—A little copper ore was found in the Snowy River granite on a low spur opposite Mount Trooper, on the east bank of Sandy Creek, and in a small creek on the Border about half a mile east of the river; in the latter instance, however, the occurrence amounted to mere traces only of carbonates and isolated crystals of copper pyrites. Opposite Mount Trooper the indications were more pronounced and concentrated, but prospecting failed to reveal any workable deposit. An assay of a picked sample from a small concentrated bunch yielded 7·03 per cent. of copper, and 17 dwt. 9 grs. of silver per ton.

On the west end of Black Jack Range, in the parish of Currowang, a small copper lode was opened by Mr. H. T. Allen about sixteen years ago to a depth of about 30 feet. It is reported to have had a thickness of about 1 foot at surface; at 30 feet it consisted chiefly of clay, with grains of metallic copper. Two tons of ore dispatched to market at the time of working are reported to have yielded 10 per cent. of copper and a little gold.

Mention may here be made of the copper and silver-lead workings at Quidong. The copper prospecting operations preceded the silver-lead by several years. A large amount of work was done in sinking and driving on the east side of the Quidong River, in country revealing surface indications of copper and abundant oxide of iron, the latter resulting from oxidation of pyrites, which, in its unaltered condition, is very plentiful in the spoil from the deepest shafts.

Another source of the prevalent iron oxide which colours the rocks and soil of the neighbourhood, is the original precipitation of iron salts by the abundant organic remains in the strata, which have been converted into oxides, as weathering and denudation exposed the fossiliferous layers to atmospheric influences.

In some instances in the neighbourhood, Clarke's Rock, for example, the cellular, gossany appearance imparted to certain strata by the decomposition of the original organic remains, and the subsequent alteration of the investing iron salts into powdery oxides, gives rise to an erroneous impression that the "gossan" outcrops are caps of metallic lodes. A recent assay of a large average sample from the most favourable-looking of the outcrops yielded a trace of gold only.

Evidently in the early prospecting operations for copper ore nothing workable was discovered.

The most striking features in connection with the silver-lead workings and smelting plant, are the very meagre indications of ore and the inadequate prospecting, compared with the very evident heavy expenditure on crushing and smelting plant, which apparently was hardly ever used.

The ore consists of argentiferous galena in limestone, the largest vein at present visible not exceeding about 3 inches in thickness, and not solid.

Tin.—As before mentioned, a few specks of ruby tin oxide were obtained in the deep ground at Timbilica. Tin deposits were worked some years ago on the west fall of the Main Snowy Range, opposite the head of the Pinch River; but though careful search was made, no tinstone was detected in the neighbourhood of the Border near the above range.

Wolfram.—Wolfram occurs in very limited quantity in a quartz reef in Mr. Cochran's property near Mila, about 10 miles from the Border, but is of no importance.

Conclusion.

In conclusion, I desire to point out in connection with the strip of country along the Border between Tingaringi and the Snowy Valley—about 15 miles—yet remaining to be tested, that earlier prospecting and superficial tests made during a flying trip ahead were very discouraging; and further, that the channels falling northerly from ranges close to the Border were proved non-auriferous as already mentioned. In view of these facts, and the Minister's instruction to resume work next summer, I beg to strongly recommend an area—edged yellow on the accompanying map—west of the Main Snowy Range, in lieu of the Border land, as offering altogether stronger inducements for expenditure of public money. Within this area the main heads of the Murray and Tumut Rivers rise; large basalt plateaus exist, and reefs are plentiful in the narrow slate belts occurring in the granite and gneiss. Toolong, Grey Mare's Bogong, and Khancoban are gold workings discovered in this area within the past few years.

The great elevation renders prospecting a slow and difficult process, and only possible in summer months, hence little practical testing has yet been done.

If the proposal should be approved, the work would have to be carried out with the aid of pack-horses; a memorandum in connection therewith will be submitted separately.

Before closing, I desire to express my appreciation of the qualifications and good service of each of the members of the New South Wales Border Prospecting Party, viz., M. Keogh, H. Parker, J. Latty, E. Leonard, and A. Anderson.

I have, &c.,

JOSEPH E. CARNE, F.G.S.,

Geological Surveyor.

The Government Geologist.

APPENDIX 7.

Report on the natural foundations at the site of the proposed dam connected with the Hunter River Flood Prevention scheme.

Sir, Geological Survey Branch, Department Mines and Agriculture, 27 July, 1897.

I have the honor to report that, in accordance with your instructions I visited the site of the proposed flood prevention dam at Woodlands on the Hunter River, in company with Mr. E. B. Price, C.E., Assistant Engineer, Works Department.

An examination was made of the physical and geological features of the locality, with a view of ascertaining the nature of the strata on which the foundation of the dam would be laid.

The valley of the Hunter has here been excavated in the Permo-Carboniferous Coal Measures, leaving on the south side a high range capped with massive sandstone, which presents characteristic vertical cliff faces to the valley. Below this well marked escarpment the position of the softer clay shales, sandy shales, and laminated sandstones is readily distinguishable from their mode of weathering, which imparts rounded and generally sloping contours to the foothills formed of these strata.

The general horizontality of the strata is rendered evident by well-marked zones of harder rock, which protrude on the slopes, and cap table-topped isolated hills.

As will be seen by the plan and section attached to Mr. Price's report, the dam would butt against a steep cliff at the south end, and ascend gradually up a low sloping ridge to the north.

In the accompanying sketch section—which follows the course of the dam—the nature of the strata is depicted. From the data obtained in the exposed cliffs at the north and south end of the section, supplemented by the evidence of the coal seams struck in the boring operations, the nature of the bedrock underlying the river drift and soil of the valley may be confidently assumed.

The general dip of the strata is south-easterly (across the river) at a low angle, amounting to about $5\frac{1}{2}^{\circ}$ in the coal seams struck in the bores. A dip taken in the south cliff face about 160 feet above the river level registered about $7\frac{3}{4}^{\circ}$.

At the north end of the section, which is about half a mile north of the north end of the dam, a dip of 20° was noted, the increase being due to a small anticlinal roll in the Measures which is exposed in the western escarpment.

The coal seams proved in the bores close to the river, outcrop about a mile north in the west escarpment of the ridge, and again on the south side of the river in a small creek bank about half a mile above the dam site.

Where the coal seams outcrop on the side of the ridge they occur in bluish grey shale intercalated between an underlying massive bed of pebble conglomerate and sandstone, and overlying laminated sandstones, sandy shales, and clay shales with ironstone bands and cherty layers.

The exposed thickness of conglomerate above the river flat is upwards of 90 feet. The coal seams occur within 10 or 15 feet of the top of the massive conglomerate. A sandstone capping on the latter reaches closer to the coal horizon.

Following the slope of the ridge towards the dam denudation has removed the overlying softer sandstones and shales, until probably beneath the surface drift at the north end of the dam the conglomerate will be found to be the bed-rock. At this point the anticlinal roll already indicated occurs, on the southern slope of which the overlying shales and coal seams have been preserved under the river drifts and alluvium, as proved by boring.

It will be noted that in the bore in the river bed—of which a detailed section (B) is given—a depth of 22 feet from the top of the upper coal seam has been pierced without reaching the conglomerate, whilst a thickness of about 15 feet only (17 feet in one instance) is shown in the ridge section (C). The discrepancy is due to the weathering and decomposition of the coal at the outcrops, which lets the roof down, thus pinching the soft perished material into thin layers.

If the gently inclined clay shales with coal seams be not deemed suitable for the dam foundation, I am of opinion that a few feet lower—probably less than 10—solid sandstone and conglomerate strata will be reached, unless there be abnormal thickening of the shales in the direction of dip, of which, however, there is no indication.

The additional depth required at the river to reach the more solid foundation will be compensated by the gradually lessening depth of the necessary excavation as the ridge is ascended.

The laminated sandstones and shales below the massive sandstone horizon in the South Cliff section, against which the dam will butt, are soft and weathered at the outcrop below the talus of slipped blocks and soil; the excavation will, therefore, require to be extended beyond the sphere of weathering, which, owing to the protection of the overlying massive sandstone, will probably not be far.

It is very likely that the coal seams already discovered in this locality will prove of economic importance in the future. If the flood prevention scheme should be adopted it must prove an important factor in connection with the extensive works to be carried out.

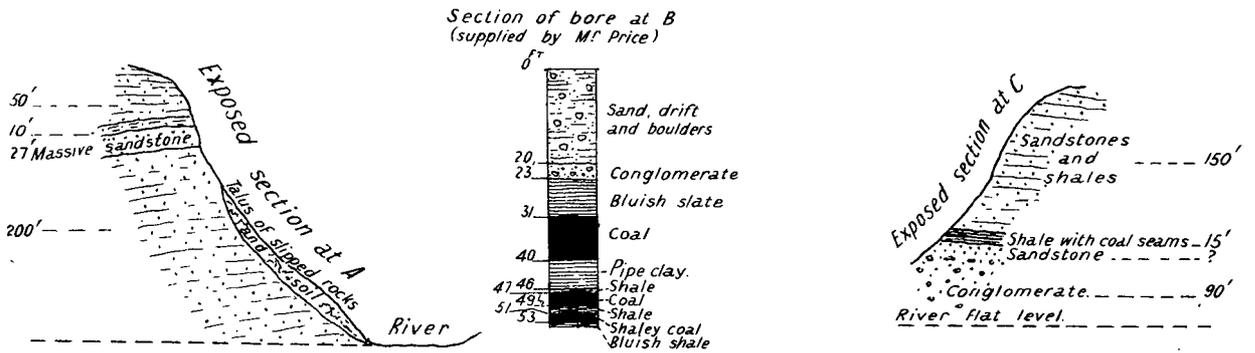
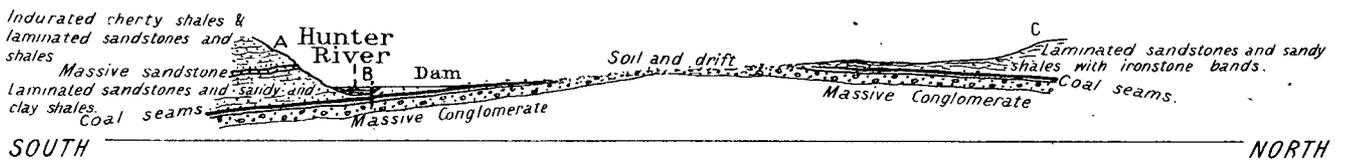
I have, &c.,

JOSEPH E. CARNE,

Geological Surveyor.

The Government Geologist.

SECTIONS to accompany report on site for Flood prevention dam at Woodlands
Hunter River:



SIG. #9

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE,
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18827

APPENDIX 8.

Report on "The Luck of Roaring Camp" Reef, near Brown's Camp, Victorian Border.

Sir,

I have the honor to report, in accordance with your instructions received on papers 97-1,634 (Prospecting Board), that I have inspected the lines of reef recently discovered by the Victorian Border Prospecting Party, and since named the "Luck of Roaring Camp."

The discovery was made on the 19th February, close to the Gippsland to Brown's Camp track, about 1 mile from where it crosses the New South Wales border. At this point three parallel reefs occur, designated respectively "Main," "East," and "West" reefs; the three occur within a distance of about 5 chains.

The country consists of altered Lower Silurian sandstones and slates. The auriferous belt containing the reefs has been traced, so Mr. Hunter (leader of the party) informs me, for a distance of about 4 miles on the line of strike, which at the point of discovery is about N. 20 E. The underlay of the veins is hardly yet determinable in the absence of sinking, but is apparently easterly.

Gold-bearing veinstone has been proved to extend for about 2 miles by means of shallow surface exposures and outcrops, loam prospects, and loose specimens at intervals. The identity and continuity of the reefs and lengths of the gold shoots throughout, however, have yet to be proved, for the intervals between the provings are frequently extensive, especially northerly, and the exposures, with one exception, confined to a few feet of shallow trenching.

The most northern exposure of reefstone carrying gold occurs about 20 chains south of the New South Wales border, but "loam" prospects and loose specimens have been found within 13 chains. (The New South Wales party began prospecting on the border line yesterday for the purpose of tracing the reefs northerly; fine colours were obtained in loam tests).

The country has been pegged for about 1 mile northerly in New South Wales, in the direction of strike; prospecting within the Colony is, however, rendered far more difficult by the change in the physical conditions. South from the Border, the country consists of stony ridges deeply intersected by creeks and gullies; northerly, gently undulating, deeply-soiled flats cover whatever outcrops occur above bedrock.

The "Main" reef, at its principal outcrop—about 80 chains from the Border—has been exposed for about 30 feet by removal of the partial covering of soil; its thickness at this point averages about 2 feet. South from the opening, the outcrop is visible at intervals through the soil for about 40 feet to near a small creek, in the clean rock bed of which it pinches, and the gold ceases. On the opposite slope, however, gold is again obtainable in the solid reefstone. South from the latter occurrence, the reef has not been traced on its strike. Mr. Hunter (who kindly supplied the attached sketch plan of locality) informs me that the measured extent of the solid outcrop is about 15 chains, and that two known gold-shoots occur in it apparently separated by a blank. He also estimates the average value of the gold-bearing portions at 1 ounce per ton.

The gold occurs associated with arsenical and occasionally ordinary iron pyrites. The quartz matrix, as a rule, has a pronounced bluish tint; portions of the main reef possess a distinctive waxy or felspathic appearance, which so far has not been detected in the northern outcrops. A little galena was noted in one of the latter, associated with the gold and pyrites.

The "East" reef occurs 2 chains east, and the "West" reef 3 chains west of the "Main" reef, their thicknesses being respectively about 10 or 12 inches. Neither of these veins carry gold at the south end of the principal outcrops. Northerly about 60 chains towards the New South Wales border, however, gold occurs in three distinct lines of reef, which are regarded as identical with the southern outcrops because of their occurrence near the main line of strike, though the strikes of the individual reefs, so far as determinable from the single very limited exposure in each case, differ essentially from that of the main line. The thicknesses of the northern veins vary from 4 to 10 inches, and the underlay of one is apparently westerly.

If the discrepancy in the strikes be disregarded as a mere local variation, then the most favourable features of the discovery are the apparent longitudinal extension of the reefs, the number of the gold shoots, and the solidity of the main outcrop, features which form a marked distinction in the district, where, hitherto, the conditions have been exactly the reverse.

The ground was extensively pegged as leases by the members of the prospecting party, and subsequently jumped or repegged under miners' rights; but owing to the discovery being within the area specially reserved for Government Border prospecting operations (2 miles wide along the Border from Cape Howe to Forest Hill), no occupation or mining operation was possible until the veto was removed. Yesterday it became known that four of the leases pegged by the party (five 30-acre blocks) were refused, and one allotted them, and that the ground was gazetted open to lease at 5 p.m. the previous day; the balance of the leases were immediately repegged on behalf of others.

The Victorian party, I understand, will shortly leave the Border for some basalt country about 10 miles from the latter, near Bonang, which they have been instructed to prospect. The leader estimates that the winter will be occupied in the work, and the Border prospecting resumed in the summer.

As regards the time required to complete the Border work on the New South Wales side, an estimate is very difficult in view of the approach of winter months. I am of opinion that it will require about two months to properly test the gold belt between the Delegate River and Currowang Creek, if I am allowed discretion in following it northerly some distance from the Border, which is likely to be more profitable than continuing west on the line.

From Currowang Creek to near the Snowy River, the gap remaining to be tested is from 18 to 20 miles in length. It may be premature and risky to hazard an opinion of the latter country, but I am not favourably impressed with its prospects; some of the most promising localities were tested whilst journeying to and from the Snowy River and Forest Hill, without any favourable indications even. Between the Snowy River and the head of the Murray River, there is a marked difference in the rocks and their mode of occurrence compared with the conditions existing between Toolong, Bogong, and Kosciusko. Both east and west of the Snowy Range at Kosciusko gold occurs. From personal knowledge of some of the western side (Bogong and Toolong, etc.), I am of opinion that gold-bearing reefs and alluvial are likely to be found between the main range and the Murray and Tumut Rivers.

By the end of the period required for properly testing the Delegate-Currowang auriferous belt, it is highly probable that the rigorous climate of this elevated district will prevent effective work being carried on. Working mines from stationary habitations can be carried on regardless of weather; but constantly shifting prospecting operations under calico would be difficult as well as trying. Our present camp is strewn around with fallen and broken timber from last year's snow. I beg to recommend the discontinuance of work when the atmospheric conditions prevent it being carried on effectually, and resumption in the summer if deemed desirable.

I have, &c.,

JOSEPH E. CARNE,
Geological Surveyor.

The Government Geologist.

APPENDIX 9.

Notes on the Geology and Auriferous Deposits of the Wolumla Gold-field.

Sir, Geological Survey, Department of Mines and Agriculture, 30 October, 1897.

I have the honor to report that whilst recently in the South Coast districts I devoted several days to a preliminary examination of the Wolumla Gold-field with the object of mapping the geological features, and noting mining developments since my previous brief visit in August, 1896 (shortly after discovery), the result of which was published in the Annual Report of the Department for the same year, page 122. The following notes and attached geological sketch map embody the results of observations to date.

Discovery.

The credit of discovery belongs to Mr. C. Momsen, a local resident, who had previously discovered and prospected an auriferous felsite dyke east of the Black Range, about 3 miles north-east of Wolumla, without, however, success attending his efforts in the form of payable deposits.

About the middle of 1896 he directed his attention to the site of the present gold-field, and after considerable search succeeded in discovering on the west side of the hill now bearing his name a portion of the auriferous matrix which shed the gold previously known to exist in small quantities in the loam and small channels in the vicinity.

Situation.

The Wolumla Gold-mines are situated on the boundary dividing the parishes of Wolumla and Cobra, in the county of Auckland. The principal are within railway reserve No. 863, and C.P. 302 in the first-mentioned parish; the remaining two, Gahan and Party's and Schuback and Party's, are within C.P. 16, parish of Cobra.

The prospector's claim (M.T. 1) is situated about 1 mile S. 18° W. of the Wolumla Post Office. The nearest shipping port is Merimbula, distant about 7 miles E. 22° S., but further by road.

The nearest gold workings are those of Pambula and Jingera, distant about 10 miles S., 22° E., and 9 miles S., 27° W. respectively.

The gold finds are at present restricted to a rectangular area of about 75 acres extending N., 30° W.

Previous Mention.

The Rev. W. B. Clarke described the general geology of the Wolumla Range, and of the country lying between it and the coast, in his "Southern Gold-fields, 1861," p. 189.

Mr. Geological-Surveyor Anderson also briefly alluded to the locality in his report on the Pambula Gold-field in the Annual Report of this Department for 1890, p. 263.

Mention has already been made of my previous report on the field in 1896.

Physical Geology.

The principal physical feature of the Wolumla district is an extensive granite valley almost completely surrounded by an elevated rim formed by the Wolumla, Black, Mumla, Bemboka, and Tantawanglo Ranges. The high lands on the north and west, towards Cobargo and Tantawanglo are chiefly granite, while those on the south and east are mostly of sedimentary origin. The latter dip gently off, and away from the granite of the valley.

It would appear from existing phenomena that the granite originally rose to a considerable elevation over the site of the present valley, lifting a portion of the western edge of a great sheet of accumulated sediments from the coastal margin of the oceanic basin in which it had been deposited. During the uplift, which evidently was effected without any violent derangement of the strata, the basal bed (conglomerate) in contact with the granite was baked and hardened, quartzitic characters being developed in the sandy paste in which the pebbles are embedded. Extensive vertical joints in the conglomerate probably attest the strength of the tangential strain of the uplift, more than shrinkage caused by desiccation.

Where the gold deposits occur a section of the uplifted strata has been tilted to a high angle, and partially engulfed in the granite magma, portions of which have been squeezed upwards through numerous joints and fractures in the sedimentary rocks, crushing and saturating them. The dynamic energy of the intrusions has also left its impress on the extruded granite, for it presents a crushed and sheared appearance in the mass, and a waxy or chitinous aspect on closer view owing to the feldspars having been converted into a felspathic paste. These features have also been induced along the zone of main contact at Momsen's Hill.

Though apparently the granite originally formed a huge boss-like mass over the present Wolumla Valley, it was not isolated from the extensive outcrop trending southerly beyond the Victorian Border, and westerly to the Monaro tableland.

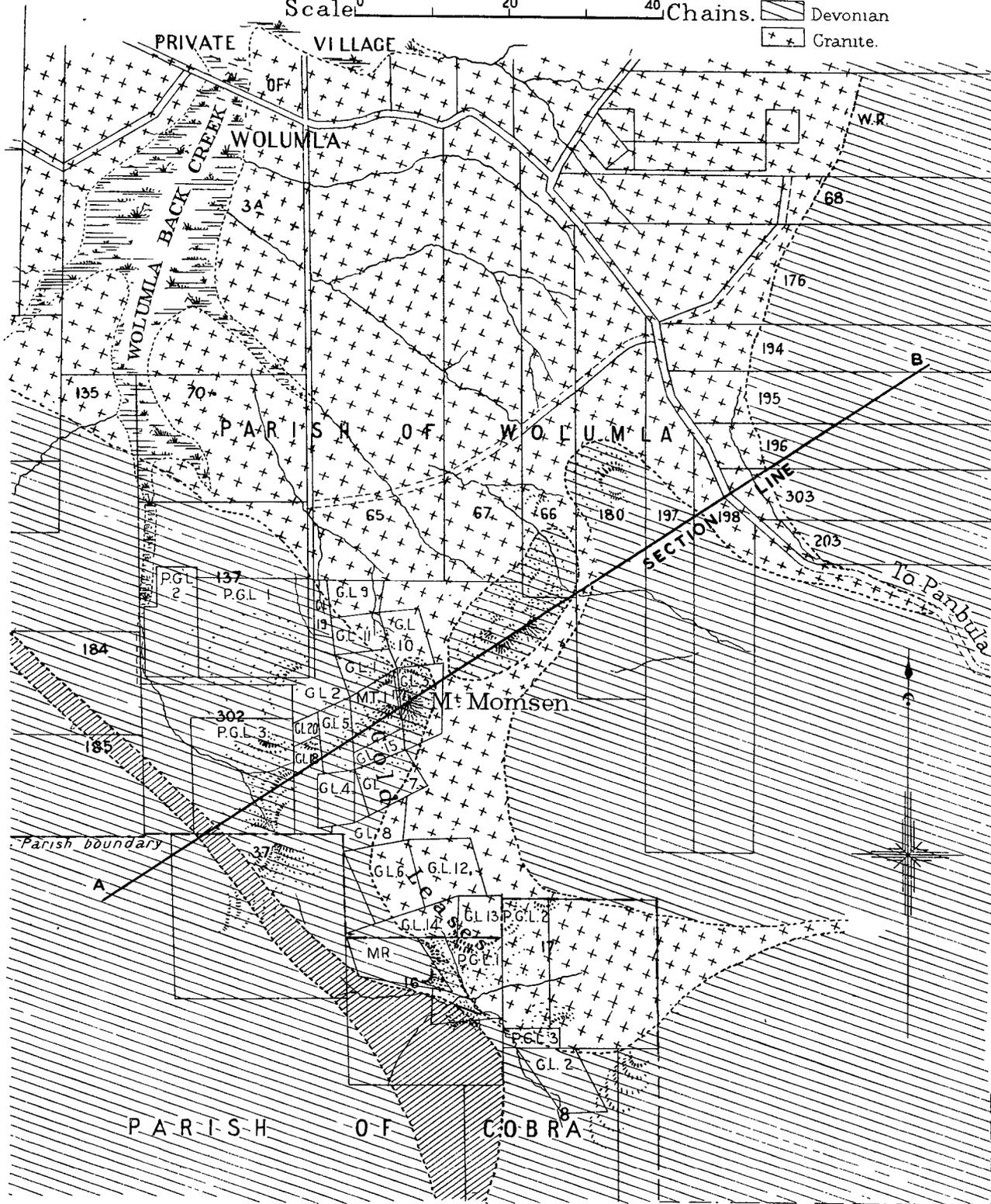
From

Geological Sketch Map of the WOLUMLA GOLD FIELD

County of Auckland.

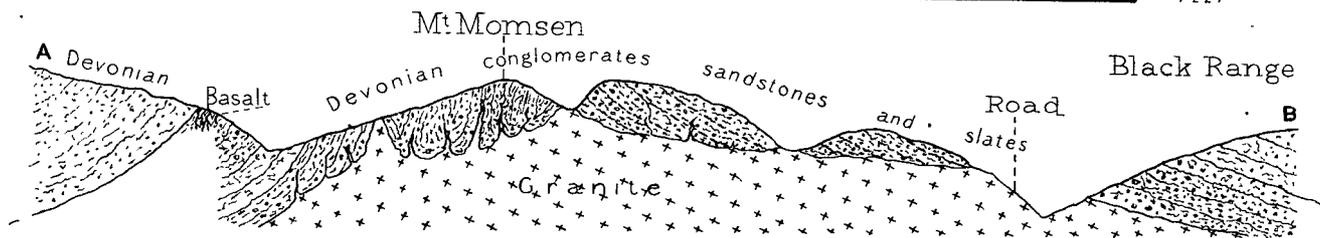
Reference	
	Basalt
	Devonian
	Granite.

Scale 0 20 40 Chains.



SECTION ON LINE --- A. B.

HORIZONTAL SCALE 0 10 20 CHAINS VERTICAL SCALE 0 500 1000 FEET



From the relative positions of the granite and the sedimentary rocks between it and the coast, it would appear that the original line of weakness marked by the former was coincident or closely parallel with a shore line of a Devonian sea. The sedimentary rocks betray their shallow marginal origin by massive conglomerates and ripple-marked sandstones. An excellent instance of the latter is exposed at Bellbird Creek, close to the Eden-Pambula road, where marine worm tracks are also seen meandering over the rippled surfaces.

From the marked absence of any evidence of later marine deposits along this portion of the coast, it is reasonable to conjecture that it has not been depressed below sea-level since Devonian times, to which period the surface rocks belong.

Mention might be made of the absence of exposure of any sedimentary rocks older than Devonian along the margin of the granite in the neighbourhood of Wolumla, unless the highly schistose rock in Schuback's claim, in portion 16, parish of Cobra, can be regarded as evidence of such; certainly it differs materially in physical character from the slates of the Devonian series, but the crushing and shearing effects of the contiguous granite would account for the difference.

Reference might also be made to a fissile slate, outcropping at the head of a small creek on the east fall of the Black Range a few miles north-east of Wolumla, because of an attempt to turn it to economic account in 1885. An examination of the locality, prompted by the belief that earlier Palæozoic rocks were probably outcropping, revealed a granitic dyke about 4 feet thick, which had induced more pronounced cleavage for a few feet on either side in the slate which it intruded. At best, the cleavable material is very soft and inferior, and obliquely-jointed across the cleavage planes, hence quite incapable of splitting into a commercial article even if the quality was satisfactory. At a short distance on either side of the dyke, the fissility decreases rapidly until cleavage is impossible. The attempt to work such unkindly material inspires wonder at the credulity that prompted outlay. This slate also differs essentially from the Devonian slates in the neighbourhood, and as it lies close under the Black Range on the east flank of the granite, it may represent earlier strata brought up by the latter.

The series of alternating conglomerates, sandstones, and red slates described in my report on the Pambula Gold-field* as occurring along the coast between Eden and Pambula, have now been further traced to about 4 miles north-easterly from Wolumla, where they still continue northwards. At Wolumla, the western margin of the beds caps the ranges, and with the one exception of Momsen's Hill, the dip is at a low angle eastward and southerly off the granite, which outcrops on the western flanks and in the gaps and valleys between the ranges and peaks. At Momsen's Hill, where the exceptional dip occurs, the beds have been tilted to an angle approaching the vertical.

The lowest stratum of the series is a massive conglomerate; as before stated, evidence of the baking effect of contact with the granite is afforded by the hard quartzitic character of the sand in which the pebbles and boulders are embedded. The latter consist principally of quartzite with, occasionally, quartz and slate, and, more rarely, felsite resembling the Pambula rock. Boulders up to 9 inches or more in diameter have been noted.

This massive conglomerate has been observed extending from the Black Range, Wolumla, to west of Pambula, and probably may yet be traced with occasional gaps to the extensive—though finer—conglomerates of Nungatta, at the head of the Genoa River, near the Victorian Border.†

Above the basal conglomerate sandstones and roughly-cleaved red and purple slates alternate frequently, the cleavage of the latter being roughly at right angles to the bedding planes. The distinctive colouring of the slates forms a very marked feature of the local stratification, because of the contrast afforded by the lighter-coloured sandstones in which they occur. The colouring is most probably due to decomposition of the original constituents of the sediments, and the liberation and peroxidation of combined iron salts.

Mr. Clarke attributed the origin of the colouring‡ in members of the same series at the mouth of the Pambula River to deposition in ferruginous waters, but the characteristic alternate banding of highly coloured slates with sandstones, usually devoid of conspicuous colouring, cannot be accounted for in the way quoted.

In connection with these strata, it is interesting to note that among a number of fossils obtained, whilst in the district, from one of the lowest sandstones of the series at the only known fossiliferous site, viz., Bellbird Creek, 3 miles north of Eden, on the Pambula-road,§ Mr. W. S. Dun, Assistant Palæontologist, identified the following forms:—

1. *Rhynchonella pleurodon*, Phillips.
2. *Rhynchonella*.—Large species, with very strongly-marked ribs, but imperfectly preserved. This he regarded as *Rhynchonella cuboides*, Sowerby, a common Devonian species, but there is a probability of it being one of the extreme varieties of *pleurodon*.
3. *Atrypa* sp.—Very like some small varieties of *Atrypa reticularis*, Linn.
4. Small branching *polyzoa*.

The sand in which these fossils are embedded was originally deposited in shallow water, as ripple marks and marine worm tracks attest. Unfortunately for the cause of palæontology, the sand has since become so indurated as to form excellent road metal, for which purpose it is used.

The fossiliferous sandstone strikes about N. 29° W., and dips N. 60° E. at 15° from the horizontal.

Data collected in the Wolumla district not only confirm the previously expressed opinion in my Pambula report that the quartz-felsite and rhyolite of Eden and Pambula are partially intrusive in the overlying Devonian series, but also demonstrate that the granite is likewise younger and intimately connected with the abovementioned acid eruptives.

The

* Annual Report, Dept. Mines and Agriculture, 1896, p. 110.

† Described in my report on the Border Prospecting Operations between Cape Howe and the head of the Murray River.—J.E.C.

‡ Southern Gold-fields, 1860, p. 193.

§ Since the above was written, Mr. G. D. Cavell, of Wolumla, has kindly informed me of the discovery of similar fossils in sandstone, about 1 mile from Wolumla.—J.E.C.

The abundance of fragmental felsitic material associated with the latter may, perhaps, be regarded as indicative of subaqueous intrusion.

The granite of the gold-field, as before mentioned, is much altered by crushing and shearing; away from these influences it is also much altered by weathering and decomposition. In parts it is rendered porphyritic by pink crystals of felspar. In the valley harder cores and dykes have resisted weathering more successfully, and stand above the general level as knolls and ridges.

Mount Misery, close to Wolumla, on the Candelo-road, is one of the former. In these occurrences felspar predominates until the mass approaches the character of an elvan dyke. Gold is associated with it in small quantity at Mount Misery.

The intimate association of gold with intrusive felsitic rocks is noticeable in several localities on the South Coast, particularly at Pambula, Wolumla, Wagonga, and Yalwal. At Pambula the gold is entirely confined to the felsites and rhyolites. At Wolumla it occurs with altered sedimentary rocks, crushed granite, and felsite.

At Wagonga, in addition to quartz-veins, it is connected with narrow felsite dykes traversing Silurian slates. At the recent rich discovery (Easdown's), on the north bank of the Wagonga River, the gold is present not only in quartz-veins at the junction of a felsite dyke, but also in the latter itself, for an assay of a clean selected sample yielded at the rate of 6 dwt. 12 gr. per ton in the Departmental laboratory.*

In several similar dykes at the head of the river, near the Bodalla-road, gold is present. Two of these have received attention—one under aid from the Prospecting Vote,—and at the present time a syndicate is engaged in reopening the most promising.

The gold of the felsites in this locality appears to be chiefly associated with pyrites. Near the surface oxidation of this mineral has liberated the gold in the free state; below the shallow oxidised zone, however, pyrites alone occurs, thinly distributed through the felsite.

At Yalwal the auriferous deposits occur in Silurian slates and sandstones, but some of the richest veins were associated with felsite, identical with the chitinous-looking variety of the Pambula Gold-field.

In three of the finds at Wolumla, viz., Cox and Party's G.L. 8, Brady and Party's G.L. 4, and Gahan and Party's P.G.L. 1, portion 16, the gold is associated with granite, which in the two former was much crushed and sheared.

The felsite dyke already mentioned as occurring about 3 miles north-easterly of Wolumla is identical in character with the auriferous felsite of Pambula. It intrudes Devonian sandstones and red slates in a N. 15° E. direction. In thickness it varies from 1 to 2 chains. A little fine gold is obtainable in the loam, resulting from its weathering, and in thin clayey joint fillings in the solid rock.

Basalt occurs as a large intrusive dyke in close proximity to the gold occurrences—in fact within 4 chains of Gahan and Party's shaft,—but it does not appear to have had any appreciable influence, for in no other instance along its course from Nethercorte and beyond has gold been found near its line of junction with the intruded rock, not even when the latter itself is associated with gold, as at Pambula, where basalt at Indigo Gap in Mount Gahan ridge is intrusive in the auriferous felsite of the gold-field. At Wolumla it strikes in a north-westerly direction past the lower or southern end of the gold-field. Here it possesses the same distinctive amygdaloidal and epidotic characters as obtain in its southern outcrop in the vicinity of Pambula.

Dolerite dykes also occur at Wolumla; one in the village itself is quarried for road metal; a little further east on the west flank of the adjacent range is another outcrop. At Mount Misery, and at Schuback and Party's claim in P.G.L., in portion 16, ph. Cobra, decomposed dykes are exposed, which from their mode of occurrence probably may also be classed as dolerite.

M. Card, A.R.S.M., Curator, has kindly supplied the following petrological determinations of several specimens selected from the principal rock formations of the locality, and from four of the typical auriferous deposits:—

- No. 2590. Dolerite—Road Metal Quarry, Wolumla.
- No. 2592. Diabase—Mrs. Hill's property, south-west of Momsen's Hill.
- No. 2593. Quartz-felsite—Clynick and Naphthali's tunnel, G.L. 11.
- No. 2595. Crushed granitic rock—Cox and Party's tunnel, G.L. 8.
- No. 2599. Crushed granite, with included fragments of quartzite—Entrance to Murphy's tunnel, G.L. 5.
- No. 2601. Quartzite—Road near Momsen's hut, corner of G.L. 3.

The ore from Brady's and from Macdonal's No. 1 shaft, from near surface and from 60-foot level, consists of highly altered (crushed) acid rock, probably granite.—G. W. CARD.

Economic Geology.—The properties in which payable stone has been discovered to date are:—

- Momsen's Prospecting Claim, M.T. 1, ph. Wolumla, Auckland.
- Meaker and Party, G.L. 2 " "
- Cox and Party, G.L. 8 " "
- Brady and Party, G.L. 4 " "
- Macdonal and Party, P.G.L., portion 302, ph. "
- Schuback and Party, P.G.L., portion 16, Cobra, Auckland.
- Gahan and Party, P.G.L. 1 " "

Output

* Twenty-five tons have since been crushed at Fraser's Battery, Wagonga, for a reported yield of 4 dwt. per ton.—J.E.C.

Macdonal and Party's finds in P.G.L. on the north end of portion 302, parish Wolumla, are, perhaps, the most promising of the later discoveries, but development has here also been retarded by litigation. Two shafts about $6\frac{1}{2}$ chains apart are on gold-bearing stone of excellent quality. No. 1 shaft at the time of inspection was down 60 feet, following the underlay of a body of crushed granitic rock striking N. 60° W., and underlying west at 21° from the vertical. In this shaft about 10 inches of rich stone is backed on the hanging wall side by about 3 or 4 feet of similar rock, but much harder and more pyritiferous; a selected sample of the latter yielded in the Departmental laboratory at the rate of 13 dwt. 1 gr. of gold, and 2 oz. 5 dwt. 17 grs. of silver per ton. One ton of the same material was purchased at the Australian Smelting Works, Dapto, at 17 dwt. of gold per ton, and another ton selected by Mr. Bensusan from the full width of auriferous stone at the 60-foot level was broken down and sampled at the Government Metallurgical Works, Clyde, for a return of 2 oz. 12 dwt. of gold per ton.

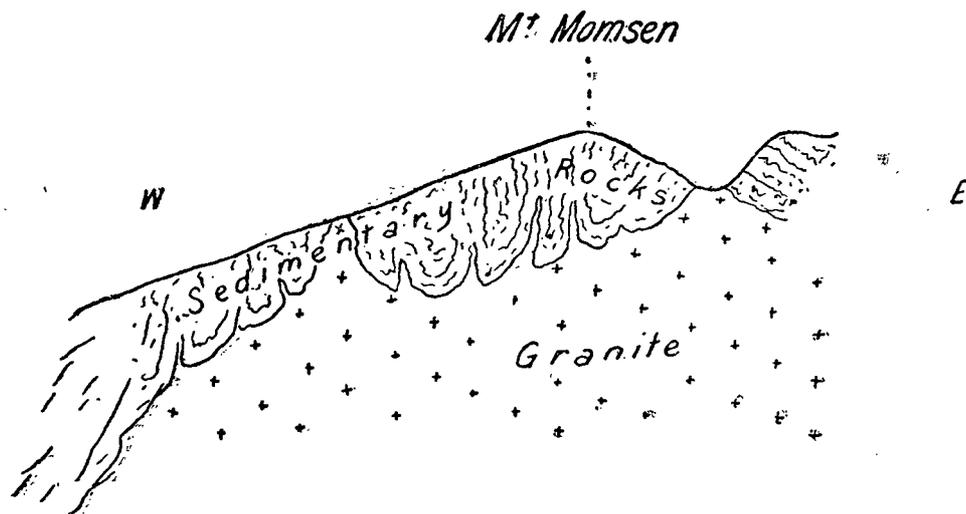
No. 2 shaft distant about $6\frac{1}{2}$ chains S. 62° E, is on a distinct strike of stone, viz., north and south, with a scarcely perceptible dip to the eastward. The auriferous stone in this shaft has a variable thickness up to 10 inches.

Gold has been found in five places on this lease, two or more small surface outcrops being close to, and apparently on the same strike as the auriferous shoot in No. 1 shaft. The richest stone is distinguished by a bluish tint which serves as a guide in selecting the best stone for despatch to the smelting works at Dapto.

Between Macdonal's find and the Momsen Proprietary Mine, Meaker and Party have recently discovered rich stone in their lease G.L. 2. Prior to this discovery a large amount of trenching was done by the party both north and west of the Proprietary Mine in the hope of picking up the run of auriferous stone from the latter, but the efforts were entirely unavailing.

The gold shoot in G.L. 2 is similar in character to those in the adjoining lease on the west—Macdonal's—at the surface it was but a foot in length and 2 inches thick, at 10 feet it had lengthened to 4 feet, and thickened to 9 inches. The shoot occurs on the east side of a harder band of rock about 18 inches thick. Assays of selected samples are reported to have yielded up to 10 oz. of gold per ton. From the west side of the hard band assays are also reported up to $1\frac{1}{2}$ oz. per ton. A bulk test was being prepared at the time of my visit for despatch to the works, but no particulars are available as to the result.

Cox and Party's find in G.L. 8 on the south-east fall of Momsen's Hill is one of the most recent and promising notwithstanding that the trial tests proved less remunerative than several others from the field. This party has driven a tunnel west into the southern slope of the Hill for about 176 feet through crushed granite and altered sedimentary rock. The upper surface of the granite is exposed gently undulating at the tunnel level as it rises and falls above or below the floor. Its upper surface at this point is about 380 feet below the summit of the Hill. Indications afforded by this tunnel, and an open cut in G.L. 17 on the northern fall, denote a shallow depth of sedimentary rocks above the granite east of a line connecting those points. Westward of it the main or lateral contact occurs between the two formations in this locality as is best explained in the following section:—



The section also illustrates the manner in which the sedimentary rocks have been intruded, crushed and shattered by numerous offshoots or dykes from the main mass of eruptive rock.

About 132 feet from the entrance of Cox and Party's tunnel a shoot of gold-bearing stone was struck having a western joint wall striking N. 15° E. The auriferous stone consists of crushed and sheared granite which has been impregnated by gold solutions percolating along the joint fissure, hence there is no defined boundary on the east to the gold stone. The western wall of the joint is non-auriferous; the tunnel continued into it for about 40 feet pierced a hard, compact, yet crushed granitic rock, highly charged with pyrites. The softer gold-bearing stone on the east of the joint is mined for about 3 feet in width, which pan prospects indicate is about the thickness of payable stone; the gold dies away, however, with distance from the joint.

Chloride of silver is present in the productive stone the proportion of metallic silver to gold being about 5 to 1.

Schafer and Party after sinking a shaft in G.L. 7 without result, have now commenced tunnelling for the purpose of endeavouring to cut the auriferous joint in Cox and Party's lease which they adjoin. The entrance to the tunnel is within G.L. 8, at the junction of granite and sedimentary rock, advantage being taken, by permission, of the natural configuration of the country.

Preston

Preston and Party, (G.L. 3) originally found gold on the face of a large block of quartzite outcropping at the site of their present shaft, which is close to the summit of Momsen's Hill, and near the east boundary of the prospector's claim.

The shaft was sunk in quartzite and quartz-felsite much jointed. Fair prospects were obtained at different levels, but nothing defined or payable was encountered. A cross-cut tunnel has now been started for the purpose of piercing the junction of the granite and sedimentary formations, which lies between the tunnel entrance and the shaft. Aid from the Prospecting Vote has been granted in this case, as also in G.L. 11 on the north fall of the Hill, where Messrs. Clynick and Naphali are also cross-cutting for a similar purpose. The face of the latter tunnel was at 132 feet from the entrance in quartz-felsite highly charged with pyrites. This rock corresponds with that at Preston and Party's shaft, and probably is just at the junction of the two principal formations.

The three tunnels last-mentioned are all cross-cutting the contact zone from the granite on the eastern side at levels varying from about 200 to 500 feet below the summit of Momsen's Hill.

On the west also three tunnels are entering the Hill in altered sedimentary rocks intruded by dykes of crushed granitic and felsitic rock. Momsen's tunnel already mentioned has been extended well under the cap of the Hill at about 80 feet below the summit. At about 120 feet lower in G.L. 5 a tunnel has been driven 100 ft., the last 20 feet in crushed granite with included fragments of quartzite. Nests of pyrites occur in the latter rock; an assay of a selected sample yielded a trace of gold only.

In the adjoining lease (G.L. 4) on the south another tunnel has been driven east for about 130 feet. At the entrance, crushed granite is exposed for a few feet, then slates and conglomerates. This tunnel is on a level, about 60 feet above that of G.L. 5.

From the end of the tunnel a large amount of trenching across the outcrop has been done, and a shaft sunk and driven without touching any auriferous deposit.

Schuback and party in P.G.L., adjoining Gahan and party's lease on the west in portion 16, parish Cobra, have performed a considerable amount of work. Three shafts have been sunk in a schistose slate close to the junction of the granite. Below the oxidised zone the slate is of a greenish tint and highly charged with pyrites. The latter is but slightly auriferous; a concentrated sample yielded only at the rate of 1 dwt. 2 gr. of gold per ton.

In the main shaft a decomposed dyke (probably dolerite) was cut; at the junction a thin but rich soft filling was followed down for some distance. Ten tons raised during operations was sold on assay to the Australian Smelting Works at 10 oz. of gold per ton. This shaft was driven 40 feet westerly and 34 feet southerly, and another shaft sunk on the southern extension; but the gold appeared to be confined to a short shoot in the main shaft.

In the adjoining lease on the north—G.L. 14—the same party has sunk 45 feet, and driven from that level N. 60° E. 45 feet, and 70 feet S. 60° W. In the southerly drive the junction of the granite and sedimentary was crossed without, however, discovering any auriferous stone.

Summary and conclusion.

Briefly summarised, the Wolumla gold deposits consist of impregnated patches of crushed granite and sedimentary rocks, usually destitute of defined walls or other guides pertaining to the ordinary or normal conditions of reef or lode mining. The deposits occur along a zone of crushing and fracturing at and near the junctions of the two formations mentioned, which probably offered free passage to percolating auriferous solutions. Why the deposition of the gold should have been confined to isolated patches in the crushed rocks may, perhaps, be attributed to the equally isolated occurrence of some precipitating medium at the points now marked by payable mines.

In addition to the occurrence of auriferous deposits in the crushed granite mass near the main junction, offshoots intruded as dykes in the sedimentary—as at Macdonal's and Meaker's, and probably Momsen's—are also auriferous, usually more richly so along a softer joint or crack.

From the nature of the gold occurrence at Wolumla there is every reason to anticipate its persistence to great depths, though it is unlikely that the individual shoots discovered near the surface will prove equally persistent.

Crushed and fractured rocks, either wholly eruptive or partly so in contact zones as payable mineral receptacles, form comparatively new features of mining development in the Colony, where chiefly fissures filled with distinctive gangues have occupied attention. The auriferous rocks at Pambula and Wolumla may be cited as excellent examples of the two forms of metalliferous crushed rock.

These new features widen immensely the scope of prospecting, by bringing under scrutiny rocks hitherto but little regarded. At the same time it must be clearly understood that mere identity or similarity with known metalliferous rocks does not of itself involve similarity—or even presence—of metallic contents. The containing rocks frequently may be the accidental, not the specific, cause of metalliferous deposition, marking as they do simply lines of least resistance to earth movements, along which mineral solutions subsequently followed, impregnating the crushed and shattered material resulting from dynamic movement along the planes of weakness.

In the case of isolated eruptive dykes, such as the auriferous felsites of Wagonga, there is on the other hand reason for regarding them as carriers of metallic elements to the surface from great depths.

The difficulties of development attendant upon the absence of any lithological distinction between the country and gangue, or more correctly perhaps between the metalliferous and non-metalliferous portions of crushed rock, have already been noted in my Pambula report.*

In connection with the subject, it is interesting to note that the rich gold and tellurium ores of Kalgoorlie, West Australia, belong to this class of deposits; for the Government Geologist—Mr. Pittman—in the field, and Mr. Card, Curator, in the petrological laboratory, have independently established the fact that these ores consist of impregnated, crushed eruptive rock—probably felsitic.

I have, &c.,

JOSEPH E. CARNE, F.G.S.,
Geological Surveyor.

Notes

APPENDIX 10.

Notes on the Occurrence of Tungsten Ores in New South Wales, with a Register of Localities.

Sir,

Reviewing our knowledge of the local occurrences, it must be admitted that no payable deposits have yet been discovered, notwithstanding the stir caused by the sudden large advance in values of tungsten ores about the year 1890, although numerous fresh occurrences have been noted, and previously known ones more or less superficially explored.

Judging from the known deposits of tungsten ores in this Colony, and from the extremely limited outputs recorded in the statistical returns of countries producing them, notwithstanding the constant demand, it would appear that the ores of this metal are sparsely distributed in nature.

The chief supplies appear to be drawn from Cornwall (England), Austria-Hungary, Germany, and Saxony. Texas and Northern Mexico are reported this year to be offering unusually large quantities from recently-opened mines.*

The following outputs, recorded from the first-mentioned countries, are taken from "Mineral Industry," 1896 †:—

1891-5. United Kingdom	...	...	289 tons (returned marked <i>nil</i> for 1894-5).
1891-5. Austria-Hungary	...	...	247 "
1891-5. Saxony	...	...	226 "
1891-4. Germany	...	...	208 " (mixed Wolfram and Uranium ores).

In the "Mineral Industry of the United Kingdom, 1895, Second Annual Report," Portugal and Spain are also recorded as producers of tungsten ores to the extent of 19 tons and 14 tons, respectively, in 1894.

The above quotations serve to exemplify the very restricted world-production of tungsten ores, and explain the reason of rapid advance in value as fresh uses are discovered for the metal or its salts.

Prior to 1890 the market value of tungsten ores did not exceed about £12 per ton. In that year Messrs. Sternberg and Deutsch, of Martinikenfelde, *via* Berlin, made personal inquiry for wolfram in the New South Wales Court at the London Mining Exhibition, and offered £30 per ton for ore containing 70 per cent. tungstic acid, delivered in Berlin. This first intimation of rapid advance in value was announced in the Colony through the Department of Mines, and resulted in considerable activity in prospecting for this mineral. Prices have receded since that date. The present value for 70 per cent. ore may be accepted as about £20 per ton, bagged, free on board, at Sydney, with an advance of 5s. 3d. per unit above 70 per cent. These quotations are from Mr. Clotten's letter already referred to.

The English value for production in 1893 equalled about £19 per ton.

The high minimum market grade—viz., 70 per cent. tungstic acid—requires ore entirely separated from gangue; indeed, some wolfram ore, to all appearances clean, falls below this standard. Dressing to standard by cobbing and hand-picking is not a difficult matter when the ore is in fairly large clean bunches; but in the case of small particles or crystals distributed through the gangue, which is usually quartz, separation would be almost economically impossible, under the local conditions of mining and dressing, owing to the heavy loss entailed by the brittleness of wolfram (which is the chief ore), arising from its facile cleavage into extremely fine plates. The reduction of the quartz gangue by stampers or rolls to the requisite fineness to free the ore particles would slime most of the wolfram and necessitate an extensive recovery plant. If lower grade ore was saleable, possibly miners could obtain more remunerative returns from proportionately lower selling values.

Until recent years the principal use of tungsten was in the preparation of acid salts for rendering coloured cotton goods "fast," or washable, and linen and cotton theatrical or other properties non-inflammable, and in the manufacture of stained and other papers, &c.

Its chief value, however, at the present time is as an alloy in the production of certain classes of steel for artillery and tool purposes. There is, however, considerable diversity of opinion amongst authorities as to the special qualities or merits of tungsten steel, some affirming and others denying its brittleness and hardness.

Professor F. L. Garrison discusses this question in an interesting article on "Alloys of Iron and Tungsten," ‡ and quotes Metcalf, from the "Transactions Am. Soc. C.E.," Vol. xxvii, pp. 394-5, and H. M. Howe's "Metallurgy of Steel," p. 82, for the following statements:—"It is popularly believed that tungsten renders iron very hard, and in support of this is the fact that there are many brands of so-called self-hardening steel on the market—that is, steel which does not require to be rapidly cooled in order to become hard. Nevertheless, this belief is erroneous; for if a steel be chosen not excessively rich in manganese and carbon, as all the self-hardening specimens are, then no amount of tungsten will make it file-hard if allowed to cool spontaneously in the air. The true function of this element is to delay the rate of change of carbon when either going in or out of solution. . . . Tungsten steel is neither so hard nor so strong as plain carbon steel; hence there is no advantage in using it except for certain purposes."

Professor Garrison remarks that Metcalf has also referred to tungsten in steel as acting merely as a vehicle in enabling the carbon to carry the "temper" or "hardness." He further observes that this peculiarity is only developed in the presence of manganese.

Howe states that "the hardness of tungsten steel is not impaired by heat, and as a consequence may be driven much faster than carbon steel when used as machine cutting tools."

"Tungsten steel appears chiefly adapted for cutting tools of lathers and planers."§

"When forged red-hot and slowly cooled, tungsten steel is reported to possess an extraordinary degree of hardness, which, however, gives way to softness when plunged red-hot into cold water, quite contrary to most other species of steel."||

E. Fuchs and L. De Launay state that "Tungsten has for some time been used to a considerable extent in the manufacture of steel, particularly for artillery, and this use is restricted only by the rarity of the metal itself."

"In

* Extract from an official letter from F. E. Clotten, 136, High-street, Cologne, Germany.
 † The Mineral Industry: Its Statistics, Technology, and Trade, 1896, v, pp. 749, 771, 776, 819.
 ‡ Ann. Rept. U. S. Geol. Survey, 1894-5, xvii, pt. 3, pp. 615-623.
 § H. M. Howe, Metallurgy of Steel, p. 82. || Trans., Am. Inst. M. Eng., xxii, p. 236-245.

"In a series of experiments made by Captain Caron, the addition of tungsten to cast-iron ($\frac{1}{8}$ to 1 per cent.) increased the hardness and the tenacity of the metal in proportion to the weight of the tungsten added. But it is especially in the case of steel that tungsten in very small proportions increases the hardness and tenacity."

"This influence of tungsten on steel and iron tends to prove that it neutralises the contained phosphorus, sulphur, and arsenic, combining with them chemically. In cast iron it is reduced at the expense of the carbon, and adds, more or less, to the metal the character of steel."*

Tungsten ores are most frequently associated with tin and bismuth ores, and, as before stated, the principal supplies are drawn from tin workings. In fact, in some countries and provinces—Saxony, for instance—the waste from ancient tin-dressing floors has been carefully worked over for the discarded wolfram of earlier mining days. In others wolfram has become the most important product of previous tin mines.

Intimate mixture with tinstone, either in the form of fine worn grains in alluvial drifts, or as finely comminuted particles in crushed lodestuff, necessarily depreciates the value of each mineral owing to the difficulty of separating, arising from practically equal specific gravities.

In tin smelting the presence of tungsten is objectionable in any proportion. Dr. G. Mackenzie, Manager of the Sydney Tin Smelting Works, informs me that the maximum quantity of tungsten ore which may be disregarded in tin smelting should not exceed 1 per cent.

The effect of tungsten in tin-smelting furnaces is to impede reduction and cause loss by scorification.

When possible separation of wolfram from tinstone is effected by cobbing and hand-picking; in finely comminuted material, however, fusion with common soda or sulphate is resorted to for the purpose of forming a soluble tungstate of soda which can afterwards be removed by washing.

Tungsten ores consist of compounds of tungstic acid with iron and manganese (wolfram, etc.), lime (scheelite), lime and copper (cupro-scheelite), and lead (stolzite). Of these wolfram and scheelite are the most common, and wolfram the most important commercially. In addition to the above are several alteration products of less importance.

The percentages of tungstic trioxide (tungstic acid), on which the market value depends, range up to about 77.5 in wolfram ores, and 80 in scheelite.

Tungsten ores have been recorded from the following localities within the Colony, many of which are known officially, others, however, are dependent upon the good faith of persons desiring assays made in the Departmental Laboratory.†

Register of Localities.

Adelong.—Professor Liversidge gives the following description of scheelite from this locality:—†
"A specimen from the Victoria Reef Gold Mine, Adelong, County Wynyard, was massive, but with a portion of a crystal showing on one side, of an amber colour, translucent, resinous lustre, brittle, splintery fracture. Hardness, 4.5; specific gravity, 6.097. Associated with a dark green chloritic veinstuff. The following analysis was kindly made for me by Dr. Helms:—

Loss at red-heat	...	...	...	...	...	...	...	25
Tungstic acid	...	...	...	...	...	...	...	79.53
Lime	...	...	...	...	...	...	...	19.14
Alumina	...	...	...	...	...	...	...	.58
Magnesia	...	...	...	...	...	...	...	.07

99.57

The above results correspond to the formula Ca. WO_4 ."

Armidale District.—From Gara Falls, about 12 miles from Armidale, a sample of scheelite was assayed in the Departmental Laboratory, in 1886, for a yield of 47.9 per cent. of tungstic acid. A sample in 1894, from the same district, yielded 66.29 per cent.

Berridale.—About 20 miles S.W. of Cooma.—Mr. Warden Love reported, in connection with the discovery of this locality, "A broken outcrop of quartz, containing wolfram, was traced for 100 yards, running east and west. An assay of a small sample yielded 69 per cent. of tungstic acid."§ (D.M.A., 1891.)|| Another assay was made in 1893, yielding 54.35 per cent. (D.M.A., 1893.)

Bingera.—Wolfram forwarded as coming from this locality yielded 72.46 per cent. tungstic acid. (D.M.A., 1893.)

Bundarra, 25 miles S.W. of Tingha, New England.—A sample received from this locality consisted of wolfram associated with arseniate and arsenide of iron in quartz, which yielded 44.94 per cent. of tungstic acid. (D.M.A., 1891.)

Burrowa District.—Both scheelite and wolfram occur in the neighbourhood of Frogmore, associated with both quartz and granite. Assays have yielded from 31.65 to 66.96 per cent. of tungstic acid. (D.M.A., 1891–2–3.) Prospecting failed, however, to discover any payable deposits.

Casino District, Richmond River.—From this district a sample of scheelite was assayed for a return of 75.30 per cent. of tungstic acid. (D.M.A., 1895.)

Clive County, Parish of Benqha.—Wolfram in a siliceous gangue, stained with arseniate of iron, forwarded from this locality yielded 42.55 per cent. of tungstic acid. (D.M.A., 1892.) It is also reported from Scrubby Rush, in the same County.

Cobar District.—Wolfram in quartz forwarded from this District yielded 53.70 per cent. of tungstic acid. (D.M.A., 1895.)

Cowra District.—Wolfram, yielding 67.80 per cent. tungstic acid, was forwarded for assay from this locality in 1893. (D.M.A., 1893.)

Cooma, 3 miles from.—Probably this locality should be Berridale. Wolfram reported as coming from near Cooma, yielded 54.95 per cent. tungstic acid. (D.M.A., 1891.)

Cordillera

* Trai et des Gites Mineraux et Metalliferes, ii, pp. 169 and 170.

† For many of these localities I am indebted to the valuable register compiled by Mr. Trickett, of this Branch.

‡ Minerals of New South Wales, 1888, p. 85. § Ann. Rept. Dept. Mines and Agric., for 1891.

|| NOTE.—Assays made in the Departmental Laboratory are marked (D.M.A.) with the year.

Cordillera Hill, Tuena District.—Scheelite, cupro-scheelite and stolzite were discovered when opening the Cordillera Hill Silver and Copper Mine in 1888, but, so far, the above minerals have not been systematically searched for.

The Government Analyst, Mr. W. H. Hamlet, F.C.S., &c., for this Department made the following analysis of a massive sample of a dark greenish colour* :—

Tungstic trioxide	...	...	...	...	...	69.31 per cent.
Lime	...	...	...	...	...	19.35 "
Silica	...	...	...	...	...	4.88 "
Copper oxide	...	...	...	...	...	4.05 "
Iron oxide	...	...	...	...	...	2.01 "
						99.60

Prior to this date, Mr. W. A. Dixon, F.I.C., F.C.S., detected the presence of stolzite (tungstate of lead) in this mine. Stolzite is also recorded from Broken Hill.†

Deepwater, New England.—Both wolfram and scheelite occur in the Bolivia district, the particular localities specified being Nine-mile, 10 miles east, and 20 miles from Deepwater, at Bald Rock; at the latter it occurs in quartz and felspar stained with arseniate of iron. At 10 miles east of Deepwater, ilmenite is associated with the wolfram in quartz. Assays from the above localities, made in the Departmental Laboratory in 1892-3-4, yielded from 47.02 to 73.10 per cent. of tungstic acid.

Ding Dong.—Between Deepwater and the Great Divide.—The late Government Geologist, Mr. C. S. Wilkinson, recorded the occurrence of wolfram at Ding Dong, where it is associated with tinstone in griesen.‡

Emmaville, New England.—Mr. T. W. E. David, B.A., F.G.S., thus refers to the occurrence of tungsten ores in this district:—"An important vein of wolfram occurs on the Mole tableland, 13½ miles north of Emmaville in a direct line, but 21 miles distant by road. The point, at which the reef was observed to be rich in wolfram, bears west 36° south from the south-west corner of portion 407, parish Rockvale, county Clive, a quarter of a mile distant, and lies just outside the boundary of this parish, in the north-east corner of parish Flagstone, county Gough. The vein is, in places, from 10 to 12 yards wide, though probably not metalliferous throughout its entire width. Owing to the reef being covered over with iron-stained sandy soil, it is impossible to ascertain, by mere inspection, the average width or length of its outcrop, though surface indications favour the supposition that the reef is a strong one. The strike is about N. 40° E. As far as I am aware, this reef has never been prospected, and it is situated partly on Crown lands.

"Wolfram also occurs at the Gulf main vein, Hall's Grampians, Lee's Gully, and the Planet Mine, near the head of the Nine-mile Creek, parish Wellington Vale, county Gough.

"Scheelite has been found in small quantities at McDonald's veins, on the Glen Creek. The mineral is honey-coloured and translucent."§

Though it is understood that no very large amount of prospecting has been done on the Mole Tableland lode, yet there is sufficient to reveal the fact that the wolfram is confined to comparatively small bunches in the reef, though at the same time larger than any other known deposits of clean ore. There is no record of any assays in the Department from this locality, but from physical appearance, the ore is of first quality.

An assay made, in 1892, of rubble wolfram in quartz and mispickel from the Emmaville district yielded 64.06 per cent. of tungstic acid.

Elsmore, near Inverell.—A sample of wolfram in quartz from this locality yielded 67.20 per cent. of tungstic acid. (D.M.A., 1895.)

Frogmore, Burrowa District.—See Burrowa.

Glen Innes.—Mr. C. S. Wilkinson recorded the occurrence of wolfram, associated with bismuth, molybdenite and arsenical pyrites, in Portion 25, about half a mile north-west of Kingsgate, in a large pipe vein, consisting of a very ferruginous mass of quartz.

About 12 miles north from Glen Innes at Hogue's Creek, about 1 mile from the Tenterfield Road, Mr. Wilkinson described a larger occurrence of wolfram associated with the minerals already mentioned as present in the Kingsgate ore. He described the mode of occurrence as follows :—

"They form irregular veins and masses of quartz traversing a fine-grained micaceous felsite rock, which is surrounded by altered sedimentary rocks. In one place this rock, for a length about 100 yards and a width of 15 yards, is traversed by a network of quartz veins. A small hole has been sunk here, and the stone taken from it contains bismuth ores, tin ore, molybdenite, arsenical pyrites, and wolfram.

In another place, about 100 yards from the last-named, a mass of hard crystalline quartz, in size at the surface about 40 feet by 20 feet, has been opened for a few feet in depth. It contained bismuth and tin ores, together with a large quantity of wolfram."||

Mr. Wilkinson did not consider that the lodestuff could be profitably worked for tin ore owing to the large proportion of wolfram.

Quite recently Mr. C. S. McGlew has been opening up this deposit of wolfram. A certain amount of clean wolfram is obtainable, but the bulk of the lodestuff, so far as operations have yet extended, is much below the minimum grade.

Gara Falls.—See Armidale.

Grampians (Hall's).—See Emmaville.

Gulf Mine.—See Emmaville.

Gundagai.—Wolfram in granite, forwarded from the Gundagai District, was assayed for a yield of 61.44 per cent. of tungstic acid. (D.M.A., 1892.)

Guyra.—Scheelite from this locality yielded 75.60 per cent. of tungstic acid.

Hillgrove,

* Ann. Rept. Dep. Mines for 1886, p. 41. † Records Geol. Survey N. S. Wales, 1896, v, pt. 1, p. 8.
‡ Ann. Rept. Dept. Mines for 1883, p. 151. § Geology of Vegetable Creek Tin-mining Field, 1887, pp. 161-2.
|| Ann. Rept. Dept. Mines and Agric. for 1883, p. 154.

Hillgrove, Armidale District.—Scheelite was noted at Hillgrove shortly after the gold discovery, because of its association with the gold and stibnite of the reefs. No appreciable quantity has, however, been exposed in the extensive workings and prospecting of the locality. Assays made of a number of samples during 1892, 1893, and 1894, yielded from 38·25 to 71·80 per cent. of tungstic acid. The gold and antimony reefs of Hillgrove occur principally in slate country close to the junction of granite, and to a lesser extent within the granite also.

Inverell.—Professor Liversidge gives the following description of a sample of wolfram from Inverell:—
“A specimen found in quartz veins with tinstone, Inverell, county Gough, of the usual bronzy black colour, sub-metallic lustre, opaque, lamellar structure, with only traces of crystal faces, had the following composition:—”

Tungstic acid	...	...	...	...	...	...	...	77·640
Iron protoxide	...	...	...	...	...	...	...	18·760
Manganese	...	...	...	...	...	...	...	4·121
								100·521*

Another sample recorded in the Departmental Assay Register as coming from 15 miles south of Inverell, yielded 73·40 per cent. of tungstic acid.

Jingellic, Upper Murray River.—Mr. E. F. Pittman recorded the presence of wolfram in the Jingellic tin lodes, which consist of quartz veins in granite. In No. 4 lode, which had been opened for 8 chains, the associated minerals were much arsenical pyrites, some wolfram and tourmaline, and a good percentage of tin ore.†

The tin lodes at Jingellic were abandoned shortly after Mr. Pittman's inspection owing (according to local report) to the failure to realise on some 9 tons of ore extracted, which may probably have been due to the presence of wolfram beyond the minimum limit of Australian smelters.

Mila, 14 miles south of Bombala, Monaro.—Wolfram occurs very sparingly distributed in a quartz reef in Mr. Cochrane's property, near Mila.

Mole Tableland.—See Emmaville.

Mount Hope.—North-west of Euabalong, Lachlan River.—Wolfram was discovered near Mount Hope by a Mr. Eason about the time of the gold discovery at Mount Allen in this neighbourhood. Several assays have been made which yielded from 62·57 to 72·2 per cent. of tungstic acid (D.M.A., 1892), but nothing is yet known of its mode of occurrence or probable quantity.

Mount Sutton, New England.—An assay sample from this locality yielded 71·22 per cent. of tungstic acid.

Nangeribone Run, via Nymagee.—Wolfram was detected in a sample of quartz from this locality, sent to the Department for examination.

New England.—Under this very broad definition of locality several samples of wolfram have been assayed in the Departmental Laboratory for yields from 56·50 to 70·75 per cent. of tungstic acid.

Newstead.—Wolfram from this locality has been noted, but nothing definite is known either of the exact locality or mode of occurrence.

Pulletop Station, County Mitchell, Wagga Wagga District.—Wolfram occurs in the vicinity of Pulletop Creek in the Parishes of Westby and Barrandana, associated with tinstone in quartz veins close to the junction of slate and granite, and in drift originating from denudation of the reefs. At the time of my inspection of this locality in 1894, about twenty loads of drift were run through a box-sluice for a yield of 5 or 6 cwt. of mixed wolfram and tinstone, an average assay of which yielded:—

	per cent.							
Metallic tin	27·72
Tungstic acid	28·82‡

A mixture of this character is unsaleable in the Colony, and owing to the practically equal specific gravities, the two minerals cannot be separated by mechanical appliances, though a large proportion of the wolfram could be removed by sieving; owing to the fact that all the larger fragments consist of that mineral, the tinstone being comparatively fine.

After considerable inquiry abroad, Messrs. Harrold Brothers, of 19, Bridge-street, Sydney, who were devoting considerable attention to the subject, ascertained that the mixture represented by the above assay had a prospective value in England of about £15 per ton, less about £3 cost of treatment.

Assays of other samples from Pulletop, made in 1894, yielded from 45·90 to 62·20 per cent. tungstic acid.

Purnamoota, Barrier Range.—A sample from this locality, received during the current year, was tested in the Departmental Laboratory for a return of 62·10 per cent. of tungstic acid.

Peelwood.—Scheelite has been reported from this locality. It is, however, more than probable that the occurrence recorded under this heading is identical with that of Cordillera Hill.

Severn River, near Emmaville.—Wolfram is recorded from this locality in 1886, which yielded, on assay, 74·41 per cent. of tungstic acid.

Tenterfield District.—Granular wolfram in clayey matrix, from this district, was assayed in 1893 for a return of 57·25 per cent. tungstic acid; and another sample, more specifically defined as coming from within 7 miles of Tenterfield, yielded 40·21 per cent.

The Gulf, New England.—See Emmaville.

Waukeroo, Barrier Range.—Wolfram is recorded from this locality, but no assays have been registered.

Wellington Vale.—Vegetable Creek or Emmaville district, which see.

Yeoval.—South-west of Wellington.—Cupro-scheelite was identified by Mr. G. W. Card, A.R.S.M., Curator, amongst specimens collected from Yeoval by Mr. E. C. Whittell, Field Assistant. §

I have, &c.,

JOSEPH E. CARNE,
Geological Surveyor.

The Government Geologist.

APPENDIX

* Minerals of New South Wales, 1888, p. 85.
† Ann. Rept. Dept. Mines and Agric. for 1894, p. 113.

‡ Ann. Rept. Dept. Mines for 1881, p. 143.
§ Ann. Rept. Dept. Mines and Agric. for 1896, p. 143.

APPENDIX 11.

Geological Survey Branch, Department of Mines and Agriculture,
New South Wales, 3 January, 1898.

Sir,
I now have the honor to forward you my progress report for the year ending 31st December, 1897.

The commencement of the year found me in the Orange district examining various mines in connection with applications for aid from the Prospecting Vote and attending to general geological work.

Upon the 18th January I left Sydney for Wyalong, and was engaged until the 7th March in the Southern district.

I left Sydney on 17th March for Captain's Flat, and was engaged for ten days with Mr. Geological Surveyor Watt, inspecting and sampling the Lake George Mines in connection with a proposal to extend the railway from Bungendore. We were afterwards engaged in the office for a fortnight, writing a joint report upon the Lake George Mines, preparing plans, &c.

Upon the 30th April, I left Sydney for Inverell, and was engaged in the Northern district until 12th June. I inspected the Bundarra Copper-field, the deep tin lead at Elsmore Valley, and a supposed diamond-bearing volcanic pipe near Bingara. I also made an examination of the ironstone bed near Seaham, and inspected the work which had been done upon the same since I last visited the district. During the remainder of the year I was engaged in the Northern district inspecting mines in connection with the Prospecting Vote, and dealing with proposals to modify the various gold-field reserves.

In September I examined the newly-discovered cobalt deposits at Point Macquarie. During the year I have contributed a paper to the Geological Survey Records—"Geological Notes upon a Trip to Kosciusko."

The Government Geologist.

I have, &c.,

JOHN B. JAQUET.

APPENDIX 12.

Minute on Mr. Jaquet's Report on supposed Volcanic "Pipe," at Bingara.

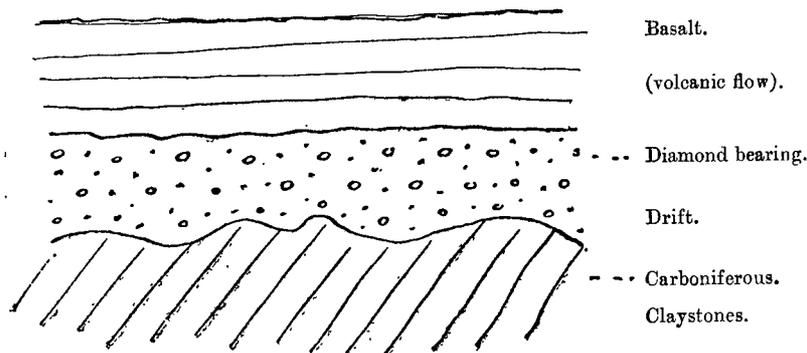
MR. JAQUET'S examination thoroughly bears out the opinion previously expressed by me, after inspecting samples of the rock forwarded by Mr. Wingate, the manager of the mine. This rock was stated to be volcanic breccia, such as occurs in volcanic pipes,—it proved, however, to be sedimentary rock, carboniferous claystone, which is the prevailing rock underlying the diamantiferous river drifts of Bingara.

I think it is probable that the diamonds occurring in these river drifts at Bingara, Cope's Creek, &c., will ultimately be traced to volcanic pipes, but there is reason to suppose that such pipes, if they do exist, will be found much farther to the eastward, viz., to the south-east of Inverell.

In the meantime there is no reason for amending the official statements already made as to the mode of occurrence of diamonds at Bingara.

E. F. PITTMAN,
Government Geologist.

Sir,
Geological Survey Branch, Department of Mines, N.S.W., 23 June, 1897.
I have the honor to inform you that in accordance with your instructions I have inspected the so-called "pipe," mentioned by the residents of Bingara in the attached petition, as occurring in the Australian Diamond Company's claim, which is situated about 6 miles from Bingara, in a south-westerly direction.



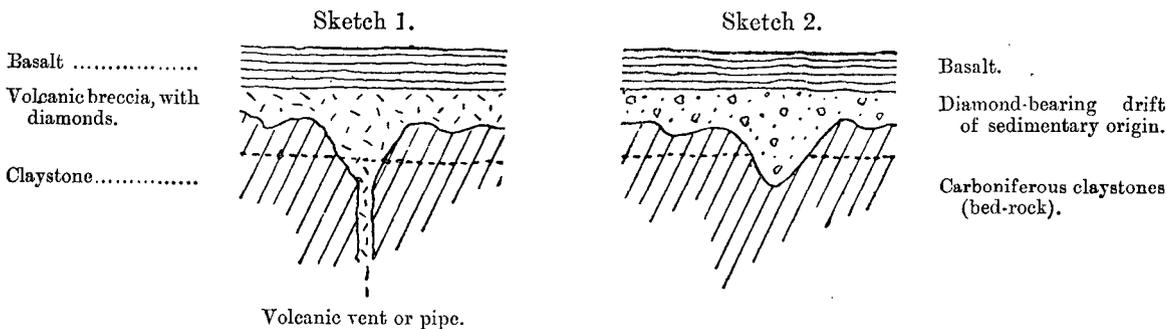
The mode of occurrence of the diamonds is shown in the above sketch. They occur, as they do elsewhere upon the field, in an ancient alluvial deposit which has been overlain and protected by a basalt sheet. The owners of the claim have sunk a shaft to a depth of 154 feet, which shaft has entered the claystones (bedrock) at a depth of 135 feet. There is nothing, in my opinion, to suggest the presence of a volcanic pipe upon the property.

I have, &c.,

JOHN B. JAQUET,
Geological Surveyor.

THE petition of the residents of Bingara asked for a specific report upon a volcanic pipe, which was said to have been discovered in the Australian Diamond Company's Mine, near Bingara. I did not make a general examination of the diamond-bearing country, but only obtained sufficient evidence from an inspection of the mine mentioned to satisfy myself that a mistake had been made.

I was shown the supposed pipe in the side of the mine workings. Sketch No. 1 represents what is to be seen according to the discoverers. Sketch No. 2 is the explanation which I have to offer concerning the phenomenon. The dotted line shows approximately the position of the bottom of the workings, and what occurs below this line is a matter of conjecture. The sketches are of course diagrammatic.



Volcanic vent or pipe.

The so-called volcanic breccia or lava I found to be largely composed of waterworn pebbles and sand. I would suggest that the true character of the "pipe" could be quickly made evident by sinking down a few feet at its point of emergence.

As mentioned in the report above, a shaft was sunk to a depth of 154 feet upon the property, and upon a subsequent visit I inspected a drive which had been driven at a depth of 100 feet with a view of intercepting the supposed pipe. This drive throughout its whole length was in sedimentary rock (claystone), and no volcanic material of any kind had been encountered in it.

J.B.J.

APPENDIX 13.

Geological Survey Branch, Department of Mines and Agriculture,

Sir,

Sydney, N.S.W., 15 March, 1897.

In accordance with your instructions I have made an examination of Rigby's Reef, which is situated about $1\frac{1}{2}$ miles from Major's Creek township in a north-westerly direction.

The reef was first worked about twenty years ago by Rigby and party, who raised free milling gossans, and ceased operations on meeting the pyritous ore below. Eighteen months ago Messrs. Canning and party, having obtained an agreement from the owner of the land, commenced operations with a view of testing the pyrites below the old workings.

In April last year I inspected the reef in connection with an application for aid from the Prospecting Vote.

I found in the floor of the 52-foot level (E upon the plan) a well defined vein of pyrites about 1 foot 3 inches wide. I took samples across the vein, and these upon being assayed by Mr. J. C. H. Mingaye, Assayer and Analyst to the Mines Department, yielded as follows:—

Gold	1 oz. 13 dwt. 18 grs. per ton.
Silver	11 oz. per ton.

The Board considered the ore payable, and the application was refused.

The party then went to work and sunk the shaft to a depth of 64 feet, crosscutted to the reef, and then drove upon it 26 feet in an easterly direction. From between the two levels (52 feet and 64 feet) they raised 20 tons of ore, which upon being crushed at Major's Creek battery yielded 5 oz. of free gold and 6 tons of concentrates, which were bought by Messrs. Harrold Bros., as containing 3 oz. 18 dwt. of gold and 11 oz. of silver per ton; so there were recovered altogether 1 oz. 8 dwt. 10 grs. of gold, and 3 oz. 6 dwt. of silver per ton. A considerable amount of silver was probably lost.

The party next proceeded to drive westerly at the 64-foot level. I have been informed that at a point distant 40 feet from the shaft $2\frac{1}{2}$ cwt. of ore were taken and sent down to the Illawarra Works, and crushed, sampled, and assayed, and that it yielded as follows:—

Gold	19 dwt. per ton.
Silver	26 oz. „
Copper	14½ per cent.
Antimony	5 „

Subsequently 30 tons of ore from the drive were sent to Illawarra Works for treatment, but upon being sampled and assayed the parcel was only found to contain as follows:—

Gold	4 dwt. per ton.
Silver	9 oz. 4 dwt. per ton.
Copper	3 per cent.

Whereupon the Smelting Company wrote that the ore sent down would not pay for smelting, and the mine was shut down in consequence.

When I recently revisited the mine it was full of water, and, being unable to proceed underground, I could only make an examination of the ore upon the surface. I found the unoxidised ore to consist essentially of iron pyrites, copper pyrites, and fahlertz, with a silicious gangue. There would appear to be two classes of ore in the mine: an ore adapted for treatment by milling, and a smelting ore.

Fahlertz is a mineral which may contain as much as 38 per cent. of copper, and the copper is sometimes almost entirely replaced with silver. Any ore which contains this mineral in abundance would be a valuable one for smelting purposes; and if the general ore won from the 64-foot level west resembled that which I examined upon the surface, as I believe to be the case, then, by a judicious process of selection, parcels of ore containing payable quantities of copper and silver could be obtained.

To profitably work the mine it will be necessary to have someone in charge who has had experience in the dressing of copper and silver ores. I may emphasise this fact by stating that hitherto ore coated with a film of iridescent iron-oxide has been much sought after as copper ore.

Judging by the old workings the reef would seem to extend for a distance of several chains upon either side of the shaft shown upon the accompanying sketch. The present party recently obtained 26 tons of gossan ore from a point distant 4 chains east of the shaft, where the reef had a width of from 1 ft. to 1 ft. 3 in.

This

This ore upon being treated at Major's Creek battery yielded as follows:—

9½ tons	...	...	...	...	16 dwt. of gold per ton.
16 "	...	...	...	...	9 " "

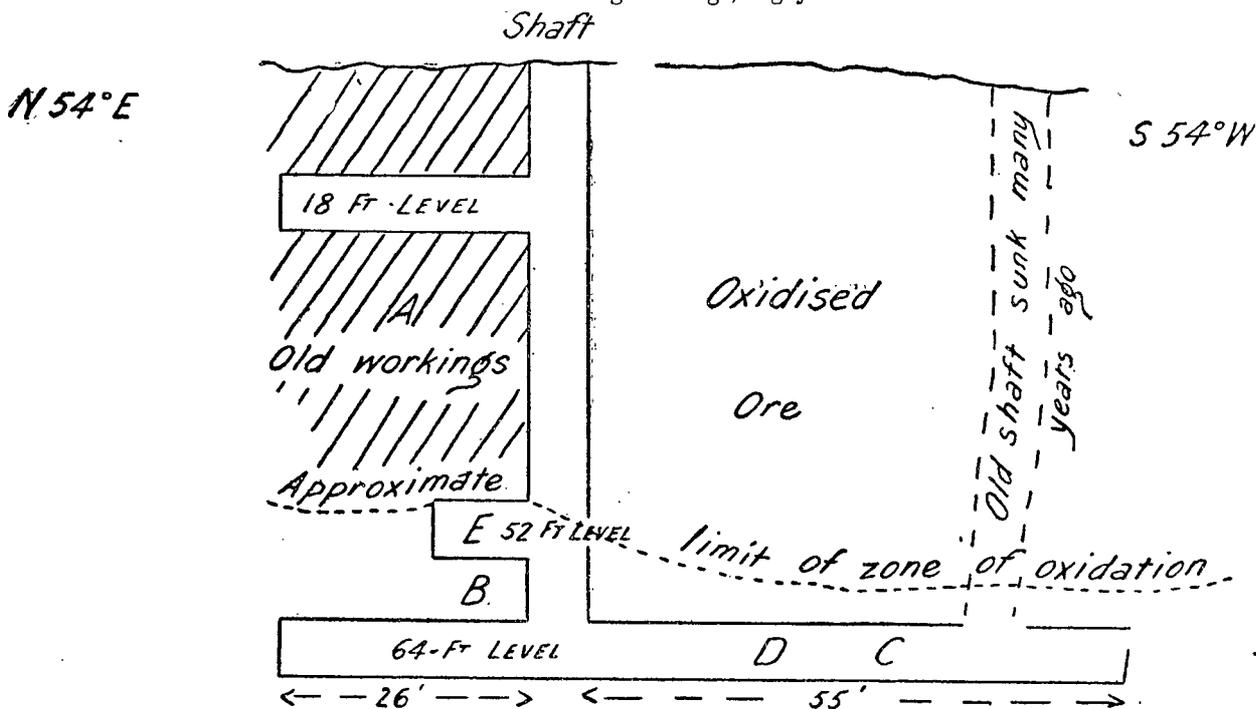
Having considered all the facts detailed above, I consider the vein to be a promising one, and would strongly recommend that a new shaft be sunk to a depth of 100 feet, and that levels be driven in either direction upon the vein for distances of 100 feet.

When this has been done it will be necessary, in order to determine the value of the property, that the vein be carefully sampled and tested by someone having an acquaintance, not only with gold ores, but also with copper and silver ores.

I have, &c.,
 JOHN B. JAQUET,
 Geological Surveyor.

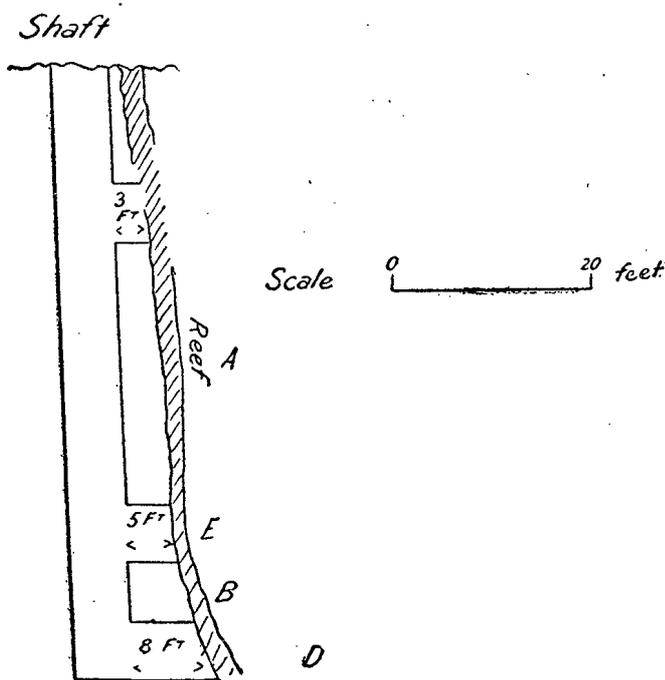
The Government Geologist.

Sketch Section showing workings, Rigby's Reef.



- A. Gossan of a free milling character, raised from these slopes many years ago.
- B. 20 tons of ore were obtained from between these two levels by the present owners, from which 1 oz. 8 dwt. 10 grs. of gold and 3 oz. 6 dwt. of silver per ton were recovered.
- C. 2½ cwt. of pyritous ore taken from the face of this level at a point 40 feet from shaft yielded on assay: Gold, 10 dwt.; silver, 26 oz.; and copper, 14 per cent. per ton.
- D. 30 tons of ore taken from this drive, on being sampled and assayed, yielded: Gold, 4 dwt.; silver, 9 oz. 4 dwt.; and copper, 3 per cent. per ton.
- E. A sample which I took from across the face of the reef in this level yielded on assay: Gold, 1 oz. 13 dwt. 18 grs.; and silver, 9 oz. per ton. (J.B.J.)

Transverse Section.



APPENDIX 14.

Report on Copper Lode at Bundarra.

Sir,

Inverell, 22 May, 1897.

I have the honor to inform you that, in accordance with your instructions, I have made a geological examination of the copper lode which has been discovered about 3 miles south of Bundarra.

The geological formations consist of altered slates, claystones, &c., which are to a large extent impregnated with ironstone near the surface, while occasional bands of compact ironstone, associated with manganese, occur which dip downwards, and may proceed to great depths.

It is from one of these bands of ironstone that patches of rich copper ore have recently been obtained by Messrs. Russell and party.

This party having discovered traces of copper carbonate in the outcrop of a massive ironstone lode, have, by means of a shaft and short crosscuts, proved the same to a depth of 150 feet. Some rich ore has been obtained, but it occurs in patches, and no defined shoots have been discovered.

At a depth of 95 feet the lode is about 5 feet wide. A level has been driven along it for a length of 30 feet, and a small bunch of rich sulphide ore has been encountered. Parcels of this ore have been treated at the Newcastle Smelting Works, and yielded as follows:—

6 tons	...	...	...	...	33 per cent. copper.
18 "	...	...	...	...	6½ " "

Copper pyrites can be seen in a crosscut at 130 feet. Upon the footwall side of the lode a shaft has been sunk to a depth of 84 feet in the country rock, which is here impregnated with copper carbonate with some black oxide of copper.

There are indications which lead me to think that the copper-bearing lode is short, and does not extend far in a longitudinal direction, but, having regard to the little prospecting that has been done, I should prefer not to express a definite opinion upon the subject. The owners of the mine are now asking for aid from the Prospecting Vote to continue prospecting operations on the score that the lode is not payable.

Numerous shafts are being sunk outside the prospectors' claim along an imaginary line of lode, and some of them are distant from it over 2 miles. In none of these shafts did I see any copper ore. Upon several occasions I was told that the rock was impregnated with copper stains, but in every instance upon examination I found these stains to consist of thin films of iridescent iron ore.

The general character of the country, and the fact that rich copper ore has been found upon the field, should encourage prospecting for metalliferous lodes, but the chances are greatly against such lodes being found by the system now in vogue, viz., sinking shafts along an imaginary line of lode where no indications of valuable metals are to be found upon the surface. In my opinion better results would be likely to be obtained if the energy now being directed to shaft-sinking were employed in napping and testing the outcrops, sinking being only resorted to after decided traces of copper, &c., had been obtained. Copper was first discovered in the prospectors' claim, not in the bottom of a deep shaft, but in the ironstone cropping out at the surface.

I have, &c.,

JOHN B. JAQUET,
Geologist Surveyor.

The Government Geologist.

APPENDIX 15.

Report upon Deep Tin Lead at Elsmore.

Geological Survey Office, Department of Mines,

New South Wales, 24 June, 1897.

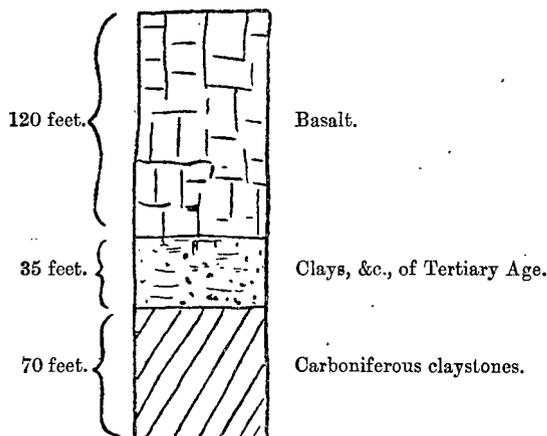
Sir,

I have the honor to inform you that, in accordance with your instructions, I have made a geological examination of the deep tin lead which has been discovered upon the Elsmore Tin Mining Co.'s property near Elsmore.

A borehole was put down to prospect a wide flat about half a mile west of the old workings. It passed through the centre of a rich tin-bearing lead, and entered the bedrock at a depth of 205 feet. The position of the borehole and a section of the strata passed through is shown upon the geological map of the Elsmore and Tingha districts by the late Geological Surveyor-in-charge, Mr. C. S. Wilkinson, and Professor T. W. E. David, which was published under your direction in 1895. Two leads or beds of tin-bearing gravel were passed through—an upper bed, 10 feet thick, and a lower and richer bed, 3 feet thick.

A working shaft has been sunk upon the south-west side of the lead.

Section exposed in Shaft.



From the bottom of the shaft a level has been driven in a north-easterly direction, which has cut the lower lead at a distance of 76 feet. The lead has been proved by drives for a length of nearly 500 feet. It trends N. 53 W., falls towards the north, has an average width of about 40 feet, and a thickness of

of from 1 to 3 feet. The plant which the company are erecting for puddling and washing is not yet completed, and no bulk tests of the washdirt have been made, so I am unable to speak definitely as to the amount of tin which it contains. However, a general examination of the exposed faces has made me of opinion that the gravel is of a high-grade character, and will yield good returns. About 250 loads of washdirt are stacked at the surface awaiting treatment.

The upper gravel bed is much thicker (from 7 to 10 feet) than the lower one, and contains far less tin. It has been reached by a rise from the lower level, but, with the exception of one crosscut, no exploratory work has been carried out upon it.

I consider the discovery of these deep and promising-looking tin-leads of the greatest importance. There is a large area of basalt country forming Brodie's Plains towards which the leads are trending, and a consideration of all the circumstances has made me of opinion that under this ground, which has not yet been touched by the miner, valuable deposits of alluvial tin occur. The search for these deep leads would be facilitated in the event of a geological survey of the basalt being made.

I have, &c.,
JOHN B. JAQUET,
 Geological Surveyor.

The Government Geologist.

APPENDIX 16.

Report on Ironstone at Seaham.

Geological Survey Branch, Department of Mines,
 New South Wales, 29 June, 1897.

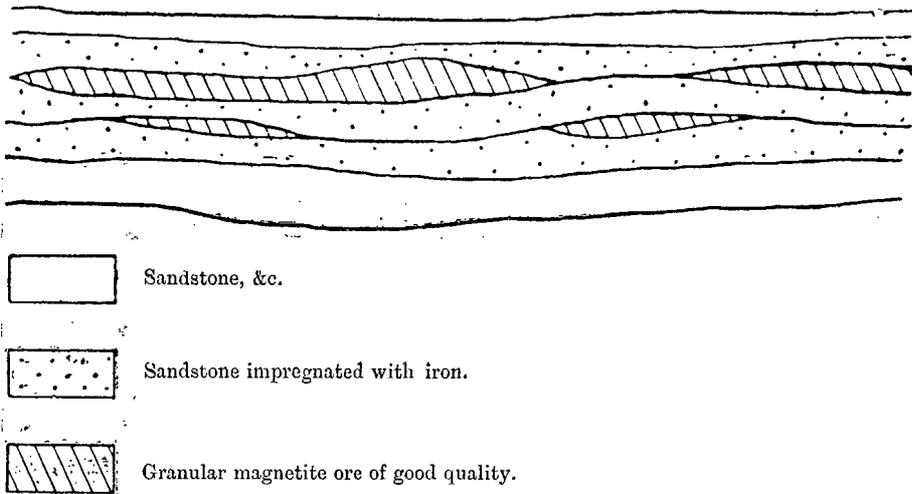
Sir,

I have the honor to inform you that, in accordance with your instructions, I have made a further examination of the ironstone discovered by Mr. Thomas Adams, sen., near Seaham.

With the aid of a grant from the Prospecting Vote Mr. Adams has put a series of deep trenches across the outcrop of the ironstone bed. Unfortunately, the workings were full of water at the time of my inspection, and I am unable to give a detailed section of the strata exposed in each cutting. I was able, however, to get a good general idea of the character of the deposit.

The compact ironstone of good quality occurs in the form of a series of disconnected masses, which taper out both along the line of strike and dip, and which succeed one another along a certain geological horizon, while the sandstone in the vicinity of these masses is in a greater or lesser degree charged with iron.

Diagrammatic section along bed.



The solid ironstone has a width of from 1 to 2 feet, and the average width of the iron-bearing bed is about 3 feet.

The outcrop of the bed has been traced by Mr. Adams for a distance of 2 miles in the vicinity of Seaham, and its position is correctly indicated upon the sketch which accompanied my preliminary report (*Vide Ann. Rept., Dept. Mines and Agric., N.S.W., 1896, p. 135*). After writing my former report I received the analysis of a series of samples which were obtained by me from various points along the outcrop. This analysis differed from any previously obtained in containing a small but appreciable amount (1.67 per cent.) of Titanic acid. In order to determine which portion of the bed contained the objectionable ingredient, I took three samples from places distant as far as possible apart from one another, and these were separately assayed for iron and titanium.

The results were as follows:—

	Metallic Iron.				Titanic Acid.			
A	49.22	per cent.	Trace,	less than .5 per cent.
B	43.22	"	"	"
C	41.67	"	"	"

Having regard to these results, and the fact that only in one instance has a sample yielded on analysis more than a trace of titanium, I think we may be justified in assuming that the Seaham portion of the bed contains only a small and harmless quantity of titanium. In this respect it differs altogether from the ore which occurs, in what is probably a continuation of the same bed, at Ironstone Mountain, and which was reported upon by Professor T. W. E. David in 1891. (*Vide Ann. Rept., Dept. Mines and Agric., 1891, p. 240.*) Again, the latter-mentioned ore contains only a trace of phosphorus, while that from Seaham contains an appreciable quantity of this element, a quantity which is sufficient to render the pig-iron produced from the ore unfit for the manufacture of steel by the ordinary Bessemer process.

Professor

Professor David, in the concluding portion of his report upon the Ironstone Mountain bed, says:—
 "It is doubtful probably also whether a comparatively thin bed like that at Ironstone Mountain can compete with the richer and more easily-worked iron deposits of Mittagong, Pieton, Rylstone, and other localities in the Western coal-field." These remarks are in a great measure applicable to the Seaham deposits.

Upon the left-hand side of the Seaham-Stroud Road, a few chains beyond the point where it crosses McManus Creek, Mr. Adams has discovered a deposit of brown ironstone. With the exception of a shallow trench, no prospecting work has been done.

An analysis of a sample of the ore by Mr. J. C. H. Mingay was as follows:—

Metallic iron...	...	...	...	...	...	49 65
Silica ...	...	...	...	...	...	8·25
Phosphoric acid	...	...	...	...	...	·41
Titanium	...	...	...	...	...	Trace.

A demand for ironstone flux has arisen in connection with smelting operations at Newcastle; and this ore, unlike the magnetite, would seem to be well adapted for this purpose.

I have, &c.,

JOHN B. JAQUET,
 Geological Surveyor.

The Government Geologist.

APPENDIX 17.

Report on Cobalt Deposits at Port Macquarie.

Sir,

Geological Survey of New South Wales, 26th December, 1897.

I have the honor to inform you that, in accordance with your instructions, I have made an examination of the deposits of cobalt ore which have recently been discovered in the town of Port Macquarie by Messrs. Wyborn and Tellefson.

The oxide of cobalt is chiefly used in the arts as a pigment. About 200 tons are annually absorbed by the world in this manner. Metallic cobalt is a bright metal which takes a polish and closely resembles nickel; indeed, were it not for its comparative high value, it might, like nickel, be used for plating purposes.

Other occurrences in New South Wales.

Cobalt has long been known to occur in New South Wales, and small quantities of the ores of this metal have from time to time been exported from the Colony.

The returns below have been extracted from the Annual Reports of the Department of Mines and Agriculture:—

Year.	Ore exported, in tons.	Value.
1887.....	640	£ s. d. 1,330 0 0
1891.....	115	470 0 0
1892.....	76	1,110 0 0
1893.....	26	305 0 0
1894.....	2 5	10 0 0
1895.....	5 5	26 0 0

The metal for the most part occurs as an hydrated oxide associated with wad in irregular superficial deposits, but also in true veins as Erythrine, Cobalite, and cobaltiferous pyrites.

Only in one locality, Carcoar, has a lode been worked exclusively for this metal. This deposit was reported upon in 1888 by Professor T. W. E. David, of Sydney University, then a geological surveyor in this Department.* He states that the ore contained Erythrine (cobalt bloom) and Glaucodot, a variety of cobaltiferous mispickel, and was associated with Annabergite (arseniate of nickel) and Molybdenite. It occurred in bunches along a line of fissure which for some distance followed a line of junction between slate and diorite. Professor David describes the ore as being exceptionally rich in cobalt, and states that when picked some of it would be worth £20 per ton. The greater portion of the ore mentioned in the above returns was probably derived from the Carcoar lode. The mine has now been closed down for some time, probably because after the richer ores had been worked out no fresh explorations were undertaken. Kupfermanganerz, containing cobalt, has also been mined in the Coombing Copper Mine near Carcoar.†

Cobaltiferous wad was worked a few years ago near Bungonia, and works were erected upon the mine to treat the ore locally. An examination of the specimens of this ore in the Survey Museum shows it to consist of a coarse grit, the component quartz grains being cemented together by manganese wad. No determined attempt to work the deposits appears to have been made, and little or no cobalt oxide was produced.

The analyses given below show it to be poorer than that occurring at Port Macquarie:—

Sample.	Description of Ore.	Cobalt Sesquioxide.	Nickel Protoxide.
1	Cobaltiferous wad	3·190	.....
2	" "	2·65	.....
3	" "	3·23	0·40
4	" "	2·61	0·35
5	" "	2·14	0 40
6	" "	3·50	.....
7	" "	5·40	.....

* Annual Report, Department of Mines and Agriculture, 1881, p. 176.

† Minerals of New South Wales, by Professor Liversidge, p. 110.

‡ These Returns are copied from the Annual Reports of the Department of Mines and Agriculture for the years 1883 to 1889.

Cobalt wad also occurs in the following localities, and assays of samples of the ore have been made from time to time in the Survey Laboratory as under:—

Locality.	Sesquioxide of Cobalt.	Protoxide of Nickel.
Mount Boppy (near Cobar).....	3.1	.....
Maclean District	6.0	.....
Nadgigomar (near Bungonia)	2.71	0.51
Taree	2.41	1.99
Tamworth District	5.20	3.70
"	Trace.	1.89
Sutton Forest.....	1.05	.....
Barrier Ranges	1.95	3.05
Boro	2.10	.....
Goulburn District (Bungonia ?).....	1.21	1.32
Capertree District	1.66	.35
Oberon	2.30	.....

A very valuable sample of cobaltiferous pyrites was recently sent into the Department from the Nerriga district, which upon assay was found to contain as high as 9.15 per cent. of metallic cobalt. Unfortunately, no exact particulars are available as to the lode which yielded this specimen.

* Smaltine and Erythrine occur in considerable quantities in the Australian Broken Hill Consols Mine, Broken Hill, associated with Dyscrasite and other rich silver ores.

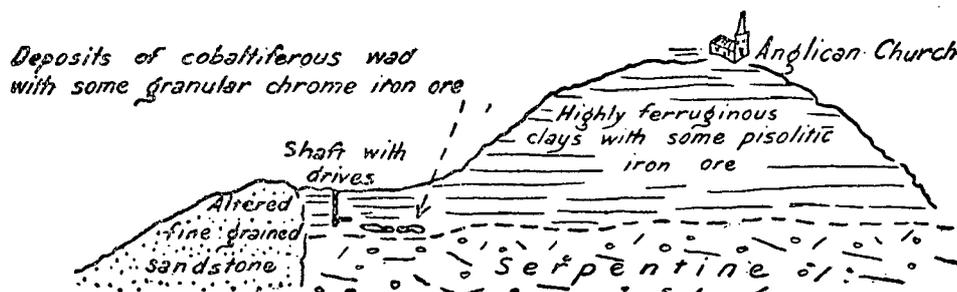
Traces of cobalt have been found in the tin-bearing cements obtained from the tertiary leads in the Inverell district, and some of the alluvial tin from Emmaville is known to contain small quantities of the metal.

Port Macquarie Deposits.

Cobalt appears to have been first found at Port Macquarie, about eleven years ago, by Mr. E. H. Becke. It was first of all worked upon the cliffs fronting the ocean a short distance south of Nobby's Point. What are probably the most promising deposits have been only recently discovered by Messrs. Tellefson and Wyborn. The site of these workings is in the town of Port Macquarie, about 250 yards from the Anglican Church, in a southerly direction.

Mode of Occurrence of the Ore.

Ideal Section, showing Mode of Occurrence of Cobalt Ore at Port Macquarie.



The sketch above represents an ideal geological section through Church Hill, and shows the position of the ore bodies. The formations consist of considerably altered fine grained sandstones and serpentine. I only made a cursory examination of the geological formations in the district, and my investigations are not sufficient to enable me to pronounce any definite opinion as to the probable origin of the serpentine. It appears, however, to have resulted from the alteration of a rock which at one time intruded the sandstone.

It is only in the serpentine and the clays which have resulted from its degradation that the cobalt is found. The ore occurs in nests or pockets which possess no defined form, and which are scattered in an irregular manner through the clays and decomposed serpentine. It is also found upon the cleavage planes and in the joints of the rocks. The most promising ore bodies have been discovered at the base of the red ferruginous clays, and in the upper layer of serpentine which is decomposing *in situ*.

Messrs. Tellefson and Wyborn have sunk a shaft to a depth of 20 feet, and from the bottom of the shaft they have driven several short levels into the decomposed rock, in all of which more or less cobalt ore can be seen. At the time of my inspection an inclined tunnel was being driven with a view of exploiting the deposits already discovered.

The ore consists of earthy cobaltiferous wad (Asbolite), an ore which, according to Dana, sometimes contains as much as 32 per cent. of metallic cobalt. It possesses a black or bluish-black colour. Generally speaking the bluer the ore the greater the quantity of cobalt which it contains. This characteristic has been used in classification. Being more or less spongy in texture, it includes within its cavities small quantities of red ferruginous clayey matter. Some specimens are rudely laminated, and others possess a botryoidal or reniform structure. The whole appearance of the ore would seem to suggest that it has had a concretionary origin.

An

* Transactions of the American Institute of Mining Engineers, Pittsburgh, February, 1896. Annual Report, Department Mines and Agriculture, 1882, p. 29.
J. E. Carne, Geological Surveyor, Report Department Mines and Agriculture, 1896, p. 106.

An average sample taken by the writer from a few tons of picked ore, raised from a new find by Messrs. Wyborn and Tellefson, was analysed by Mr. J. C. H. Mingaye, Analyst to the Mines Department, with the following result:—

Chemical Composition.

Moisture, at 100 C.....	4.98
Combined water	12.21
Silica (Silicate O ₂)	8.06
Alumina (Al ₂ O ₃)	18.95
Ferric Oxide (Fe ₂ O ₃)	14.73
Manganese Binoxide (Mn O ₂)	31.05
Cobalt Oxide (Co O)	7.48
Nickel Oxide (Ni O)	1.36
Chromium Sesquioxide (Cr ₂ O ₃) .....	.41
Copper Oxide (Cu O) .....	.05
Lime (Ca O) .....	.05
Magnesia (Mg O).....	trace
Phosphoric Acid (P ₂ O ₅) .....	.06
	99.44

A picked sample of the ore from the abandoned workings on the cliff south of Nobby's Head yielded, on being assayed by Mr. H. P. White, Assistant Analyst to the Mines Department, as follows:—

Chemical Composition.

Moisture, at 100 C.....	5.38
Combined water	12.24
Silica (Si O ₂)	6.40
Alumina (Al ₂ O ₃)	9.97
Ferric Oxide (Fe ₂ O ₃)	16.85
Manganese Binoxide (Mn O ₂)	36.50
Cobalt Oxide (Co O)	7.03
Nickel Oxide (Ni O)	2.39
Chromium Sesquioxide (Cr ₂ O ₃) .....	.40
Copper Oxide (Cu O) .....	.12
Lime (Ca O)	1.20
Magnesia (Mg O).....	.83
Phosphoric Acid (P ₂ O ₅) .....	.14
Carbonic Acid (C O ₂).....	.22
	99.67

Samples of the Port Macquarie ore have been assayed in the Survey Laboratory as under:—

Assay No.	Metallic Cobalt. per cent.	Metallic Nickel. per cent.
1394	1.34	1.70
3664	6.60	.77
3788	5.14	.....
3823	4.36	1.77

A chrome iron ore, composed of small grains of chromite loosely cemented together, is associated with the wad in places. A sample of this ore, when assayed in the Survey Laboratory, yielded as follows:—

Chromic Oxide	48.24 per cent.
Cobalt	1.29 ..

It has not been found in sufficient quantity hitherto to permit of its being worked as a chrome ore. There are also found in the red clays masses of pisolitic ironstone, which, upon analysis, have been found to contain small quantities of cobalt.

The deposits which possess the greatest interest for the Port Macquarie cobalt miners, and those from which the greatest amount of information having a practical bearing upon the subject can be obtained, are found in New Caledonia. Both as regards the character of the ore and its mode of occurrence, there is a close resemblance between the two series of deposits. It is important to note that the New Caledonian ore is only found in the clays and decomposed rocks, and never in the unaltered serpentine. There are exported from New Caledonia from 2,500 to 4,000 tons of cobalt ore every year, which contains about 5 per cent. of metallic cobalt. Formerly the ore was only hand-picked before being bagged for export, but I have reason to believe that a considerable portion is now delivered of its associated red clay by a rude process of washing. The friable powdery character of the wad (and its consequent liability to "slime") must always render its concentration by the ordinary processes difficult. Unfortunately the efforts which I have made to obtain particulars of the system in vogue in New Caledonia have not been successful.

Treatment of the Ore.—The Port Macquarie deposits are handy to water carriage, and the ore could be cheaply shipped. Nevertheless the ore is, comparatively speaking, light and bulky, and would not be sought after by shippers for stiffening purposes, as is the case with chrome iron, and other heavy ores.

The late Mr. Cosmo Newbery suggested, in 1884, that the cobalt bearing wads of Victoria might possibly be treated at a profit in the Colony by a wet process which he outlines, and which he describes as one by which very poor ores may be treated at a profit.* The process would seem to be closely analogous to that in vogue at the Maletra Works, Rouen, France. Here the powdered ore is first treated in large vats, with a solution of protosulphate of iron, and as a result the manganese, cobalt, and nickel go into solution in the form of sulphates. The solution of sulphates is run into stone basins, and sodium sulphate is added in sufficient quantity to precipitate the nickel and cobalt as sulphides. A small quantity of manganese is also precipitated during this operation, but

but the greater portion of it remains in solution. The precipitate so obtained is washed, passed through a filter press, and then treated with perchloride of iron. As a result of this operation the manganese goes into solution partly as sulphate and partly as chloride, while a comparatively speaking pure residue of nickel and cobalt sulphides remains behind.

About 180 tons of ore per month, containing 3 per cent. cobalt (?) and $1\frac{1}{4}$ per cent. nickel are treated at the Malettra Works.

Price obtained for the Ore.

The prospectors have been offered £5 10s. per ton for ore containing 5 per cent. of cobalt oxide, delivered in Sydney. It would appear ("Mineral Industry, 1896," p. 247) that the value of a ton of cobalt oxide in the United States in 1896 was about £420, so the value per unit would be £4 4s., say £4. Upon this basis of calculation the actual value of the cobalt oxide contained in a ton of 5 per cent. ore would be £20.

It may seem somewhat extraordinary, having regard to the high intrinsic value, that buyers should refuse to quote prices for parcels containing less than 5 per cent. There is, however, only a limited demand for cobalt oxide—only about 200 tons are absorbed in the arts annually; and, upon inquiry, I have learnt that a sufficient quantity of asbolite ores, yielding 5 per cent. of oxide, can readily be obtained to meet the shortage in the world's supply from other sources. I have reason to believe that the market price of the manufactured product is controlled by a small ring of merchants.

General Remarks.

In my opinion the cobalt deposits of Port Macquarie and the surrounding district are well worthy of further attention on the part of the mining community. Prospecting operations have shown that bunches of payable ore exist, which is certainly as rich, if not richer, than that which at present is being profitably mined in New Caledonia. Exploratory work has not yet proceeded far enough to enable one to express any opinion as to the dimensions of the deposits or the quantity of ore which they are likely to yield.

I am of opinion that the chances are greatly against the ore being obtained in payable quantities at a depth in the unaltered rock; and I would advise prospectors to confine their attention to the clays, &c., and the upper decomposed portions of the serpentine. Fresh deposits of ore are likely to be found from time to time in the district, and I would particularly direct the attention of prospectors to the outcrop of serpentine, for the most part covered by red clays and ironstone pebbles, which crosses the Taree-Port Macquarie Road about 12 miles from the latter town.

All the facts seem to me to suggest that the cobaltiferous wad has segregated out from the serpentine which originally contained cobalt and nickel in a finely disseminated state, and that the process of segregation has been assisted by the decomposition of the serpentine.

I have, &c.,

JOHN B. JAQUET,

Geological Surveyor.

The Government Geologist.

APPENDIX 18.

Progress Report for 1897 by Geological Surveyor J. A. Watt.

Sir,

I have the honor to furnish you with the following report of the work done since my appointment in March last.

On March 3rd I commenced my duties, and from that date till the 17th of the same month was engaged in making myself acquainted with matters in the office.

On March 17th I accompanied Mr. Geological Surveyor Jaquet to Captain's Flat and assisted him to examine and sample the Lake George mines, in connection with a proposal to construct a line of railway from some point in the neighbourhood of Bungendore on the Goulburn-Cooma Line to Captain's Flat.

I then made a short visit, lasting from 1st to 10th April, with Mr. Jaquet to the Parkes, Alectown, and Peak Hill Districts, where prospecting and lands papers were dealt with. From April 11th to the end of the month I was engaged at the office on the report on the Lake George mines and writing reports on applications for aid from the Prospecting Vote.

On May 3rd I left Sydney for Coolac, on the Gundagai Line, to examine a deposit of chrome—iron ore, consisting of loose masses of chromite embedded in the surface soil arising from the denudation of veins of chromite, which occur in serpentine higher up the slope of the hill.

During this trip the following places were visited, chiefly in connection with applications for aid from the Prospecting Vote, but in a few cases to examine portions of Mining Reserves proposed to be cancelled:—Young, Lyndhurst, Galley Swamp, Orange, Ophir, Byng, Lewis Ponds, Kerr's Creek, Warne, Stuartown, Wellington, Cargo, Mudgee, Gulgong, Home Rule, Windeyer, Capertree, and Glen Alice. In the vicinity of the last-named place, extensive reserves for shale-mining were recommended to be made.

Between May 31st and June 12th I was engaged at the office in writing reports.

On June 14th I left Sydney for Araluen, to make inquiries into the advisability of constructing the proposed drainage race in the Araluen Valley.

I again left Sydney on July 1st, and between that date and July 22nd, sites for prospecting aid were examined at Slippery Creek near Oberon, Mount David, Mount Werong, Porter's Retreat, Briar Park, and Back Creek near Rockley, Appletree Flat near Mudgee, Worobil Flat near Home Rule, Limburn, Canadian Lead, Windeyer, Clarke's Creek, Grattai, Gulgong, Tuclay Valley, Yamble, Cunningham's Hill, and Havilah. The following places were also visited in connection with proposals to alienate portions of Mining Reserves:—Native Dog Creek near Oberon, Wallbrook, Campbell's Creek near Windeyer, Gulgong, and Moglo Creek near Tuena.

Between 23rd and 30th July I was engaged at the office in writing reports.

On

On the latter date I left for Peak Hill to re-examine a portion of land on Burril Creeek, near Mingelo, which Mr. Jaquet and myself had previously reported on.

Between 11th and 29th August, the following places were visited:—Araluen, Goulburn, Middle Arm (Upper Tarlo), Gundagai, Capertee, Carlo's Gap, and Parkes.

At Araluen the sites were chosen for a series of shafts which it was decided to put down to test an extensive and unprospected flat on the north-east side of Araluen Creek.

At Middle Arm, Upper Tarlo, the site of a reported discovery of a diamond was examined; my report on this forms Appendix 19. At Carlo's Gap, the iron-ore deposits were cursorily examined, and a fortnight later in greater detail, in connection with the suggested erection of iron-reduction works at that place. My report on these deposits forms Appendix 20.

On September 13th I left Sydney, and between that date and October 5th, the following places were visited:—Sunny Corner, Hargraves, Parkes, Forbes, The Pinnacle, Condobolin, Peak Hill, and McFail (Myall). An examination was made of an auriferous reef 18 miles north-west of Condobolin; as this was a new locality it was deemed advisable to make a report on it, this forms Appendix 21.

Between 6th and 27th October my time was occupied at the office in writing reports.

On October 28th I left for Goulburn and examined extensive mining reserves on the Abercrombie River; from there I went to Yass and made a geological examination of the new finds at Nanima Creek. My report on the Nanima and Gooda Creeks Gold-fields forms Appendix

The following places were then visited to inquire into applications for aid, and proposals to alienate portions of the Mining Reserves:—Young, Cowra, Woodstock, Mount McDonald, Mandurama, Blayney, Orange, Cargo, Ophir, Bathurst, Bumberry, and Stuartown.

On December 6th, I left for Araluen, to start the prospecting operations undertaken by the Prospecting Board, and then proceeded to Albury to make inquiries into the advisability of granting a lease of a large area of ground to one party to prospect for a deep lead. Several aid cases were also dealt with in this district.

I returned to Sydney on December 17th, and from that date, excepting the holidays, I was engaged at the office in writing reports.

A paper has also been contributed to the Records of the Geological Survey on the Hargraves Saddle-Reefs.

The Government Geologist.

I have, &c.,

J. ALEX. WATT, Geological Surveyor.

APPENDIX 19.

Report on discovery of Diamond at Upper Tarlo.

Sir,

Geological Branch, Mines Department, 6 September, 1897.

In accordance with your instructions I inspected the site of the reported discovery of a diamond on portion 292 (an additional conditional purchase of 50 acres held by Mr. Woodhouse) parish of Upper Tarlo, county of Argyle, and have the honor to report as follows:—

About five years ago, while Mr. Woodhouse was prospecting for gold on a basalt hill situated on portion 292, a stone was obtained during the washing of a dish of gravel, which attracted his attention at the time, and on subsequent examination proved to be a diamond. This led to further search being made, but up to the time of my visit, with unsuccessful results.

Locality.

The site of the discovery is a basalt-capped hill situated about 20 miles north of Goulburn, on portion 292, parish of Upper Tarlo, and about 4 miles south of the Main Dividing Range, which has there a nearly due east and west course.

General Geological Features.

The sedimentary strata in the neighbourhood consists principally of Silurian (?) slates, &c., highly disturbed, considerably altered, frequently intersected by quartz veins, and intruded by igneous masses of granite. Overlying the Silurian (?) rocks are small areas of sandstone of fresh-water origin, highly ferruginous in some parts, in others silicified by the deposition of silica between the grains of sand. These rocks were observed in two places on portion 142, about 1½ mile N.W. of the first locality. In the latter case they are found to contain fossil leaves of tertiary age, some of which Mr. Dun, Palæontologist to the Mines Department, considers resemble *Quercus Wilkinsoni*, Ett., from the Eocene beds of Vegetable Creek.

Of later age than the sandstone are the drifts underlying the basalt in many parts of this district, from which on portion 292 a diamond was said to have been obtained in addition to fair prospects of gold.

More recent still than the abovementioned drifts is the basalt, which occupies the surface of a large area of the Main Dividing Range in this district, and at one time covered much of the low lying land in the vicinity, from which it has since to some extent been denuded, leaving outliers similar to that on portion 292. The gullies heading from the basalt-capped hills and running into the Middle Arm of Tarlo Creek are occupied by recent deposits derived partly from the denudation of the basalt and underlying Tertiary deposits, and partly from the disintegration of the Silurian (?) strata and granite intrusions.

Description of the Deposits.

The basalt-capped hill on portion 292 is of irregular outline, of a maximum length of about 19 chains in a W.S.W. and E.N.E. direction, and a maximum width of about 10 chains. The surface of the hill is occupied entirely by basalt with the exception of a series of outcrops of ferruginous and silicified sandstone of probably tertiary age, and of similar origin and age to the sandstone with the fossil leaves occurring about 1½ mile to N.W.

These outcrops extend diagonally across the hill and appear to have formed the southern bank of the creek, which deposited the drift and was overwhelmed by the flow of basalt which took place probably in late tertiary times. Around the N., N.E., and N.W., margins of this hill water-worn pebbles appear

at

at the surface and mark the outcrop of the drift, while south of the abovementioned sandstone outcrops, which form the banks of the tertiary creek, no pebbles are visible; moreover, the few shafts sunk on the south side, including one 60 feet deep, have failed to prove the presence of the drift on this side. The basalt is nowhere of great thickness, and varies from a few feet to about 40 or 50 feet at the most.

Underlying the basalt are drift deposits consisting of sand above, sometimes white, at other times discoloured and cemented by oxide of iron liberated by the decomposition of the overlying basalt. The thickness of the sand varies from a few inches up to 6 feet or more. The junction between the sand and underlying gravel is not sharply defined and is of an undulatory character. The drift which underlies the sand rests on the denuded edges of Silurian (?) slates which form the bed-rock of the creek which deposited the drift. The thickness of the drift varies from a few inches to 4 feet, and consists largely of water-worn pebbles of quartz, quartzite, and slate, many of which are 6 or more inches in diameter, interspersed with fine gravel and sand. One block of quartz which was observed near the edge of the outcrop of the drift on the north side of the hill must be at least 4 or 5 cwt. The outer edge of the drift in many places, but especially at the entrance of the west tunnel, has been rendered intensely hard by the infiltration of water carrying iron in solution derived from the decomposition of iron bearing minerals in the overlying basalt.

It was from the bottom of a shaft sunk to the base of this gravel that this diamond was said to have been obtained. This is the only diamond yet found in this drift, although a large quantity has since been washed with the express object of searching for the gem.

Gold has been found in the form of fine flat grains in several parts of the drift, more especially in the workings on the eastern end of the hill, where (viz., in shaft No. 6) from 1 foot of wash no less than nine or ten colours of gold to the dish were obtained.

When the workings at the western end of the hill have been extended further into the hill it is highly probable that much better prospects of gold will be obtained; gold may yet prove a valuable constituent of the drift, and the search for it be attended with more profitable results than the prospecting for diamonds.

Description of the Workings.

Two tunnels have been driven into the wash under the basalt from the north slope of the hill, the eastern one to a distance of 70 feet, the western 50 feet. About a dozen shafts in all have been sunk on different parts of the hill to depths varying from 8 to 60 feet. Vertical sections through three of them are given to show relation of the strata.

Method adopted in testing the gravel for Diamonds.

The gravel is carted to a dam situated on a creek about 1 mile distant. There it is passed through a simple piece of apparatus, consisting of two sieves, one placed above the other, on the upper of which the gravel is placed, a stream of water made to play on it, and a horizontal movement given to the machine. By this means the fine material is washed completely through the two sieves. The pebbles, from one eighth of an inch to half an inch, pass through the upper sieve and accumulate on the lower; while pebbles larger than half an inch remain on the upper sieve.

The material on the upper sieve is shovelled away directly; that on the lower is removed and placed on a table, covered by sheets of iron, to be sorted.

Whatever gold is present passes with the fine material through the sieves and is practically lost, as the arrangements for saving it are quite inadequate; but for the object of enabling the gravel to be examined for diamonds, for which purpose the machine was designed, it is sufficiently efficient.

Summary.

According to instructions, advice was given to the gentlemen interested in the work. It was pointed out to them that the best results would be obtained by continuing the western tunnel further into the hill, as all the evidence pointed to the deepest part of the channel where the best prospects are likely to be obtained, being further south than the present workings.

Diamonds have been recorded in single specimens from many parts of New South Wales, so that the discovery of a diamond in this drift should not be taken to necessarily indicate the existence of a diamantiferous deposit of economic importance.

Judged from the standpoint of modern research it is morally certain that diamonds found in tertiary drifts underlying the basalt have not been formed where we now find them. They, like the pebbles of the drift, have had their origin elsewhere; have been set free by the denudation of older rocks, and owe their present position to the action of running water. Where the rock lies which shed this diamond, and possibly others, there is no evidence. Even in places like Bingara, Inverell, and Cudgegong River, where diamonds have been found in similar deposits, but in comparatively large numbers, the matrix of the gem has not yet been found.

The sporadic nature of the occurrence of diamonds in this Colony, their low commercial value, owing largely to their intense hardness, and consequent increased expense of cutting them, are facts which must tell very much against the success of diamond mining at Upper Tarlo.

The deposit, however, requires to be further prospected before one can speak more definitely. Even should no economically important discovery of diamonds be made there is some probability that prospecting operations will prove the existence of payable gold in the drift.

I have to thank Mr. Woodhouse for his kindness in furnishing me with valuable information.

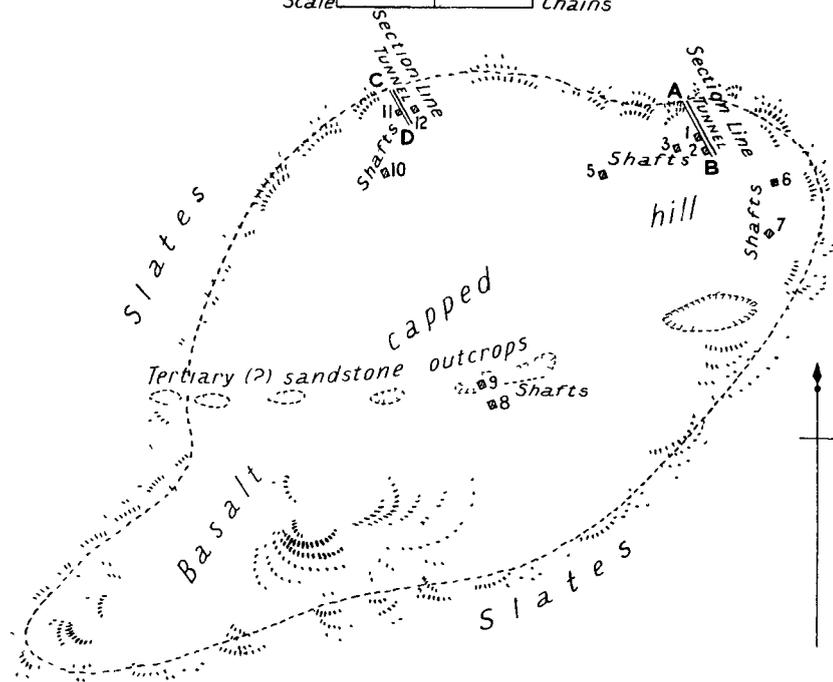
I have, &c.,

J. ALEX. WATT,
Geological Surveyor.

Sir,

PLAN
 Shewing workings on portion 292.
 Middle Arm. Parish of Upper Tarlo, County of Argyle.

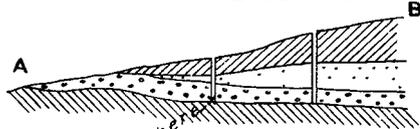
Scale 0 2 4 Chains



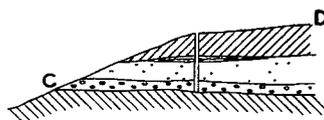
SECTIONS

SCALE 0 20 40 FEET

SECTION ON LINE A B



SECTION ON LINE C D



SECTIONS

Of shafts shewing relation of strata.



Reference	
PLIOCENE OR PLEISTOCENE	Basalt
	Clay
PLIOCENE ?	Sand
	Gravel
SILURIAN ?	Slates

APPENDIX 21.

Report on the Iron Ore Deposits at Carlo's Gap.

Sir,

Geological Survey, Mines Department, Sydney, 10 October, 1897.

In accordance with your instructions I visited Carlo's Gap, with a view of reporting on the extent and value of the iron-ore deposits in the vicinity. On August 24th a preliminary inspection was made, but as it was stated on my return that very important and extensive deposits existed on the summits of the mountains which had escaped my attention, it was deemed advisable that a second inspection should be made.

As a result of these two visits I have the honor to report as follows:—

THE IRON-ORE DEPOSITS AT CARLO'S GAP.

Carlo's Gap Platform, on the Wallerawang-Mudgee line, is distant 136 miles from Sydney and 31 from Wallerawang.

General Geological Features.

Between Capertee and Carlo's Gap the railway traverses conglomerates and mudstones of probably Upper Marine age, which overlie highly tilted and altered rocks of Silurian or Devonian age, and pass upward, without any apparent break in the conformity of the strata, into clay shales, mudstones, and sandstones of the upper coal measures.

Above the coal measures again are massive sandstones belonging to either the Hawkesbury or Narrabeen beds, and these are in turn capped by a varying thickness of basalt more or less weathered into clay.

The deposits of iron-ore occurring on the property lately held by the Carlo's Gap Coal-mining and Smelting Company are of two kinds:—

1. Bands of clay ironstone interbedded with the coal measures.
2. Irregular superficial deposits of limonite associated with decomposed basalt on the summit of the sandstone ranges.

1. Interstratified with the rocks of the coal measures, which consist mainly of clay shales, are thin bed-like deposits of clay ironstone. This ore consists essentially of carbonate of iron, with a greater or smaller admixture of clay and other impurities. Where these beds of ore come to the surface, and for varying distances from their outcrops, the original carbonate of iron has been converted by the action of atmospheric agencies into limonite, a hydrated oxide of iron. By the contraction in the volume of the ore, resulting from the chemical changes just referred to, jointing has been developed in a highly perfect degree at the outcrops, where the ore occurs in loose blocks of varying size and of rectangular shape. The economic value of these deposits is largely determined by the thickness of the bands of ore and their iron contents. With regard to the former, several bands were observed outcropping on the slope of the mountains, but none of them had a greater thickness than 1 foot, while the majority of them are less. These bands are, moreover, separated from one another by considerable thicknesses of clay shale, a circumstance that would prevent two or more of them being worked together. Nor, as far as I was able to ascertain, are there any beds of importance so situated that they could be worked with the coal.

The two seams of coal which have been worked on this property are separated by, at least 60 feet of clay shale. About midway between these two coal seams occurs one of the thickest of these bands, and another is situated about 100 feet above the upper seam.

With regard to the iron contents of this ore, a fairly average sample was obtained from a limonite outcrop of one of the largest of the bands, and this was analysed in the departmental laboratory. The result of the analysis given below may, I think, be taken to fairly represent the average composition of the altered portions of this ore:—

Analysis.	Per Cent.
Moisture at 100 C.	1.40
Combined Water	11.75
Silica (Si O ₂).....	15.55
Alumina (Al ₂ O ₃)	7.53
Ferric Oxide (Fe ₂ O ₃)	60.47
Manganese Bin oxide (Mn O ₂)	1.73
Lime (Ca O).....	0.70
Magnesia (Mg O).....	0.25
Sulphur Trioxide (S O ₃).....	0.24
Phosphoric Acid (P ₂ O ₅) minute trace (less than).....	0.01
Organic Matter.....	0.55
Metallic Iron, 42.33 per cent.	100.17

It was not found possible to obtain a sample of the unaltered ironstone, as these bands have nowhere been driven on further than 5 or 6 feet, which is not far enough to reach the unaltered ore. Experience indeed goes to show that, as a general rule, such ores in their unaltered portions are more uniform as regards their iron contents, but somewhat lower in value, than their limonite outcrops.

The unaltered ironstone might, therefore, be expected to yield from 35 to 40 per cent. of metallic iron.

In the absence of direct evidence it is impossible to definitely state how far in from the outcrops the zone of alteration will have extended; but, taking into consideration the steep slope of the mountains and the therefore rapidly increasing thickness of the strata above them, it cannot be expected to extend more than 30 or 40 feet, perhaps not so far.

From the foregoing remarks it will be understood the great drawback to the successful utilisation of these deposits lies in the fact that the expenses incurred in winning the ore would be too heavy. The beds are thin and so separated from one another that it would be possible to work but one bed at a time, whereas a very large amount of clay shale would have to be removed at the same time.

The ore is of fair quality, and a few hundred tons might be easily and cheaply obtained.

2. The other variety of iron ore is a limonite occurring on the summit of the sandstone ranges, and owing its origin to the decomposition of basalt. The iron thus set free has penetrated to a considerable depth along the joint planes of the sandstone, impregnating the rocks for some distance on each side.

This

This has produced bands of ferruginous sandstone, several feet wide in places, which become prominent owing to the denudation of the surrounding softer sandstone; but on account of their highly siliceous character they are valueless as ores of iron.

The decomposition of the basalt has given rise to another kind of deposit consisting of concretionary masses of limonite covering more or less completely the surface of the deposits of ferruginous clays of very limited extent, which have accumulated in the shallow inequalities on the surface of the sandstone. These deposits have a very limited superficial extent and reach vertically not more than 6 to 9 inches below the surface. Beneath these thin layers of iron ore are variously coloured clays through which are interspersed small concretionary lumps of limonite.

A sample collected from the superficial layer of limonite was analysed in the departmental laboratory with the following results —

Analysis	Per cent
Moisture at 100 C	2 82
Combined water	12 28
Silica (Si O ₂)	16 40
Ferric Oxide (Fe ₂ O ₃)	53 51
Ferrous Oxide (Fe O)	0 20
Manganous Oxide (Mn O)	trace
Alumina (Al ₂ O ₃)	14 06
Lime (Ca O)	0 20
Magnesia (Mg O)	0 18
Sulphur Trioxide (S O ₃)	trace.
Phosphoric Acid (P ₂ O ₅)	0 61
Organic Matter	trace
Metallic Iron, 37 53 per cent	100 26

These deposits are so extremely limited in extent that they can have but little economic value, and, moreover, the comparatively large percentage of phosphoric acid present detracts greatly from the value of the ore.

In conclusion, the fact must be recognised that no deposits of a workable nature have yet been proved to exist in the immediate vicinity of Carlo's Gap, and, as a consequence, there is nothing to justify at the present time the expenditure of any money in the erection there of iron reduction works.

I have, &c ,

J. ALEX. WATT,
Geological Surveyor.

APPENDIX 20.

Report on Winters' Reef, near Condobolin.

Department of Mines, Geological Branch, 15 October, 1897.

Sir, I have the honor to report that in accordance with your instructions I made an examination of Mr. Winters' reef, and beg to furnish you with the following particulars —

Situation.

The site of Mr Winters' workings is near the north-west corner of portion 7. parish of Barratta, county of Cunningham, and distant about 18 miles in a north-westerly direction from Condobolin.

Mr. Winters, by virtue of an agreement with Mr Seberry, the owner of the land, holds 15 acres for mining purposes.

General Geological Features

In travelling west from Parkes little is seen of the older rocks, the surface of the country becomes very flat, and, with the exception of a few isolated and comparatively low hills, is concealed beneath a covering of varying thickness of red sandy clay.

In the vicinity of Winters' Reef the bed-rock comes to the surface, and is there seen to consist of greatly disturbed and highly contorted slates, apparently inclined at high angles.

The age of the gold-bearing rocks is probably Upper Silurian, although some portions at least may possibly be Lower Silurian.

Discovery

Mr Sam Seberry was the first who did any work on the site. About two years ago a shallow pit was dug and a few pieces of quartz carrying arsenical pyrites were sent by him to Mr Scott, of Mowabla Station.

This stone, however, was not known to be gold-bearing until eleven months ago, when Mr Winters crushed several pieces of stone from the same place and found gold in them. Seven months elapsed before a lease was obtained, and in June last mining operations were commenced.

Workings on Crown Lands

Before describing the work done by Mr Winters on his lease, and the results obtained, brief mention will be made of the workings in the immediate neighbourhood.

Just outside of Mr Seberry's land, and situated on Crown land, about 100 yards distant to the north-west of Winters' shaft, Mr Auhl holds a prospecting protection area, on which a fair amount of work has been done. A shaft has been sunk to the depth of 22 feet on a couple of small quartz leaders, one of them, that on the west, varies from 2 to 4 inches in width, and is said to prospect up to an ounce of gold per ton. From 40 to 60 feet north-east of the shaft a trench 10 feet in depth has been dug, in which a leader from 4 to 6 inches in width was cut; this carries small quantities of gold. Mr. Auhl has not succeeded in finding anything larger than these two leaders.

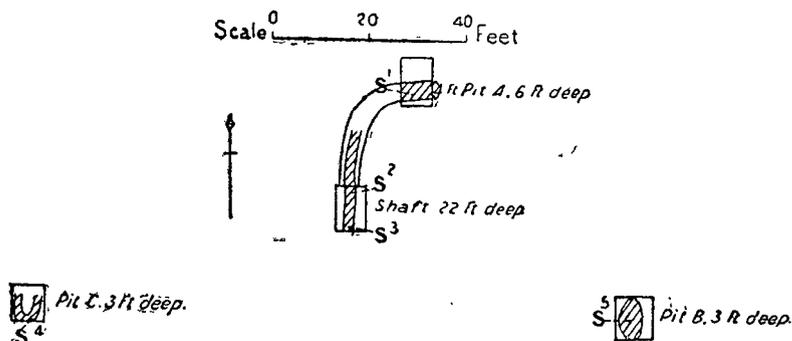
Further workings have taken place on Crown land 8 chains west of the north-western corner of portion 7. A vertical opening, so irregular that it can scarcely be called a shaft, has been made to a depth of 40 feet. Contorted and partly crushed siliceous slates were passed through, in which no defined reef was met with, but merely irregular masses of quartz and small leaders, some of which carry fair gold. Two tons 8 cwt. of stone from these workings were treated for a yield of 7 dwts per ton.

Working

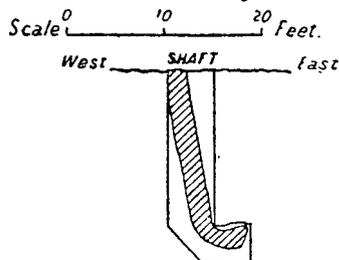
Workings on Mr. Winters' Lease.

Comparatively little work has been done on this lease. Three shallow pits, varying from 2 ft. 6 in. to 6 feet in depth, and a shaft 22 feet have been sunk. At the bottom of the shaft the reef has been opened up for a length of about 13 feet. A trench 5 feet wide and 2 ft. 6 in. in depth, extends from the shaft towards pit A (*vide* plan), which is 10 feet by 7 feet, and 6 feet deep. From 100 to 120 feet north of the shaft a narrow trench has been dug, in which nothing but small leaders were cut.

Plan of workings on Winters' Reef.



Vertical section through shaft



Note Ore body (quartz) shown thus

Lastly, Waite and party have trenched the ground about 130 yards south of Winters' Shaft for a length of 200 to 250 feet, and a depth at times of 10 feet or more, without cutting any body of quartz.

Gold-bearing Material.

Prospecting operations have not been carried out far enough to allow of the form of the ore bodies on Winters' Lease being distinctly made out. In the pits irregular masses of quartz 4 to 5 feet in width are to be seen, but whether these form portions of reefs well defined, but of a somewhat broken character, or are merely isolated masses of indefinite form, filling up irregular openings produced during the crumpling of the slates, it is impossible to say. In the present state of their development they appear to possess the latter character. The reef-like body of quartz followed down in the shaft suddenly ceases at a depth of 22 feet from the surface (*vide* section). This may be due to the presence of a fault which has separated it from the main body, or, which seems just as probable, it may illustrate the real character of these deposits.

The quartz contains, in addition to free gold, arsenical pyrites, zincblende, and galena. The three latter are present in some portions of the quartz in an unaltered state even in close proximity to the surface.

Two parcels of stone raised from Mr. Winters' Shaft have been treated:—

- (1.) Ten tons sent to Pooler's battery, at Cugong, yielded a little over 28 oz., or 2 oz. 16 dwts. per ton.
- (2.) Ten tons sent to Clyde yielded 2 oz. 2 dwts. per ton.

Five samples were collected by me from the workings on Mr. Winters' Lease, and assayed in the departmental laboratory, with the following results:—

Sample 1 (S. 1) from pit A.				
Gold ...	...	...	...	1 oz. 11 dwts. 14 grs. per ton.
Silver ...	...	...	...	3 dwts. 6 grs. per ton.
Sample 2 (S. 2) from shaft—north end.				
Gold ...	...	...	...	15 dwts. 6 grs. per ton.
Silver ...	...	...	...	4 " 8 " "
Sample 3 (S. 3) from shaft—south end.				
Gold ...	...	...	...	13 oz. 16 dwts. 14 grs. per ton.
Silver ...	...	...	...	9 dwts. 19 grs. per ton.
Sample 4 (S. 4) from pit C.				
Gold ...	...	...	...	Trace (under 2 dwts.) per ton.
Silver ...	...	...	...	" " "
Sample 5 (S. 5) from pit B.				
Gold ...	...	...	...	Trace (under 2 dwts.) per ton.
Silver ...	...	...	...	" " "

* 9—2 A

On

On Mr. Winters' Lease the prospects are decidedly encouraging, for the results of the assays, as well as the yields of the 20 tons of stone already treated, prove conclusively that rich ore exists in the bottom of pit A, and in the shaft. How far, laterally and vertically, this ore will extend prospecting alone can prove; and in carrying out this work considerable judgment will be necessary, for the "country" exhibits evidence of considerable disturbance.

My thanks are due to Mr. Scott, of Mowabla Station, for his kindness in conducting me over the ground.

I have, &c.,

J. ALEX. WATT,
Geological Surveyor.

The Government Geologist.

APPENDIX 21.

Report on the Nanima Creek and Gooda Gold-fields.

Sir, Geological Survey Branch, Department of Mines, Sydney, 1 December, 1897.

At the beginning of last month I paid a visit, in accordance with your instructions, to the above gold-fields, and now beg to furnish you with the following report on them:—

Nanima Creek Gold-field.

The locality where rich gold-bearing stone has recently been discovered is situated about 3 miles east of Murrumbateman, close to, and on the west side of, Nanima Creek, in the parish of Nanima, county of Murray.

This site is about $2\frac{1}{2}$ to 3 miles west of the old gold-field of Nanima, where well-defined auriferous quartz reefs have long been known to exist. Many years ago they were worked for a time, and afterwards abandoned, in which state they remained until quite recently, when, owing to the important discovery at the new site, on the west side of Nanima Creek, and the erection of a battery on the creek, several of them were again taken up. Bismuth is present in some of these reefs on the old Nanima Gold-field.

The quartz-felsite, which occupies almost the whole surface between Yass and Murrumbateman, extends to within a quarter of a mile westerly of the prospector's and Croker's claims, which lie just within the highly disturbed and considerably altered zone of Silurian rocks in contact with the eruptive mass.

To Mr. James Remington I believe is due the discovery of gold on the present Namina Creek Gold-field, as a result of about five weeks spent in prospecting in the neighbourhood. Good prospects were obtained by the dish in the "rubble" at the surface, about 50 yards below the outcrop of the gold-bearing stone. From this point gold was traced up the hill to the outcrop, where big masses of ironstone and quartz showing free gold were obtained. Some of the surface material was very rich. One piece of stone about 2 lb. in weight yielded $1\frac{1}{2}$ oz. of gold, while some portions of the soil and subsoil gave as much as 1 oz. of gold to the dish.

Almost simultaneously with Mr. Remington's discovery, or possibly a little later, another important find was made by Messrs. Butts and Cooper, at a point about 25 chains south of the first discovery.

Here the outcrop, which consisted of gossanous slate carrying gold visible to the naked eye, was concealed by about 9 inches of subsoil. This "rubble," as it is called, as in the case of Remington's, discovery gave good prospects with the dish, some portions of it containing as much as $1\frac{1}{2}$ to 2 dwts. of gold to the dish.

Work has been carried on by the parties holding the claims on which the discoveries were made, and the ground has been taken up on all sides of these claims, and is now being vigorously prospected, but, up to the present, without success.

Remington and Jordan's Claim.

This is known as the "Prospector's Claim," and comprises an area of 19 acres. Two shafts, where the first discovery was made, have been sunk on this ground—one, the most southern, to a depth of 130 feet, and the other, 20 feet to the north of the former, to a depth of 30 feet. The former shaft has been sunk on the gold-bearing deposit, which lies within a crushed zone on the Silurian (?) rocks, and which consists of fragments of crushed slate and silicified sandstone, and of more or less irregular veins of quartz of small size. The gold-bearing shoot of this crushed zone varies from 6 inches to 2 feet in width, underlies to the east at an angle of about 75 degrees, and pitches to the south at about 45 degrees. It has been followed down to a depth of 130 feet both on the underlay and on the pitch, making the further sinking of the shaft an almost impossible operation. Preparations were being made at the time of my visit to drive along the mineralized zone to determine its lateral extension.

Of the material obtained during the sinking of the 130-foot shaft, a first parcel of 10 tons of loam and rubble was sent about July last to Sutton, near Bywong, a distance of about 23 miles, and yielded 2 oz. 5 dwt. of gold per ton. A second parcel of 7 tons of the best of the gold-bearing material taken out, for about an average width of 1 foot, from the surface to depth of 60 feet, yielded 20 oz. of gold per ton. Four tons of tailings resulting from the treatment of the last parcel were sampled, and found on assay to contain 2 oz. of gold per ton. In addition to the above there were about 150 tons of stone stacked at the mine, which, it is expected, will yield from 8 dwts. to $\frac{1}{2}$ oz. of gold per ton.

The gold in the stone is, as a rule, in a very fine state of division, but occasionally pieces up to 2 grains in weight are noticed.

A little iron pyrites has been observed in the material already removed. This is an ingredient that may be expected to considerably increase in amount after the water-level has been passed.

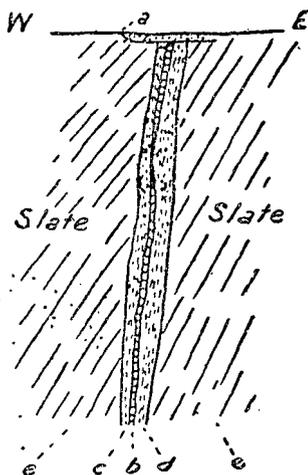
Croker and Butts' Claim.

This claim includes an area of 50 acres. The circumstances of the discovery of gold in the claim have already been detailed. Three shafts have been sunk, one 40 feet deep, another 15 feet north of the first, to a depth of 25 feet, and the third 1 chain north of the last mentioned shaft, to a depth of 80 feet. From the bottom of the 80 feet shaft a drive to the north 20 feet in length, and another to the south of a similar length have been put in along the deposit. The gold-bearing material consists of a zone of crushed slate 4 to 5 feet in width, through which runs a quartz vein of much richer nature, and varying from 5 to 15 inches in width.

Transverse

Transverse Section across Crocker's Reef (in the southern part of the mine).

Scale, 40 feet to One Inch



- a. Subsoil, 9 inches thick, carrying gold up to 1½ dwt. to the dish.
 b. Rich quartz vein, 5 to 15 inches in width, carrying gold up to 30 oz. or more per ton.
 c. Crushed slate on west wall } Expected to
 d. Crushed slate on east wall } carry 1 oz. gold
 e. "Country" Silurian (?) slate. per ton.

The width of the gold-bearing portion is at least 4 or 5 feet, and may be much more. It extends down nearly vertically, underlying slightly to the west in the southern portion of the mine, but in a much more pronounced manner in the northern portion, where the crushing of the country becomes less evident and the gold-bearing material consists only of a vein a few inches in width lying apparently parallel with the bedding planes of the slate. The country strikes nearly north and south and underlies to the west, and is somewhat obliquely intersected by the impregnated and crushed zone.

Nine tons of the stone raised during the sinking of the 80 feet shaft were treated at Sutton, near Bywong, for a yield of 30 oz. 7 dwts. per ton, and 5 tons taken from the drives yielded 1½ oz. per ton. An assay of a fair sample of the 4½ tons of tailings resulting from the crushing of the first parcel of stone gave a return of 7 oz. 16 dwts. 19 grs. of gold per ton.

Without making any allowance for the loss of gold, "float" or other, incurred in the operation, the original contents of the ore as it went to the battery could not have been less than 34 oz. of gold to the ton.

The gold seems to be in such a fine state of division that, although the tailings assayed as above, it was found impossible with the dish to obtain a prospect from them until the particles had been further reduced in size.

There are about 20 tons of ore at grass, of which 8 tons are expected to yield 7 oz., and the remainder from ½ to 1 oz. of gold per ton.

The richest stone has been obtained from the western wall of the deposit, and in the vicinity of the bottom of the shaft.

General Remarks.

In the case of both the prospectors' (Remington and Jordan's) and Crocker and Butts' claims, the gold-bearing material does not occur as an ordinary quartz reef; but in both cases it appears to consist of a zone of crushed "country" which has become impregnated by the passage through it of gold-bearing solutions.

The very fine state of division of the gold in the material treated from these claims makes it highly probable that when the water-level is reached pyrites will appear, and will be found to carry a large proportion of the gold.

So little developmental work has been done, that it would be extremely hazardous to express an opinion as to the probable extent, lateral or vertical, which these impregnated zones will be found to attain.

There is apparently no connection between the deposits on the two above-described claims; and although they are very similar in character, and are probably of similar and perhaps synchronous origin, they would seem to mark the sites of independent vents for the former passage of the gold-bearing solutions.

The deposit in the Prospectors' Claim has not been traced laterally for any distance from the 130 feet shaft, even within their own ground; while in Crocker and Butts' Claim the deposit, which is more than ¼ of a mile to the south of that in the prospectors', had run out in the north end of the mine, not more than 20 feet from the shaft, to a thin vein of quartz carrying a little gold, and was apparently cut out by a band of quartzite in the face of the S. drive, 20 feet from the shaft. On further development it may, of course, be found to pass through the quartzite, or to have been faulted against it.

Outside these two areas nothing of any value has as yet been found; in one or two cases only a little gold has been detected in the rubble or in narrow leaders. Ten samples, however, taken from likely-looking outcrops in the vicinity of the two rich mines were assayed in the departmental laboratory, with the result that neither gold nor silver was found in any of them.

Goda Creek Gold-field.

The auriferous deposits, which are situated on portion 180, parish of Jeir, county Murray, distant about 14 miles S.E. of Yass, and ¼ of a mile E. of the Queanbeyan Road, have already been reported on by Mr. Geological Surveyor Jaquet (*vide* Annual Report of Dept. Mines, 1896, p. 138); but as twelve months have elapsed since his examination, the following particulars, brought to light in the development of the mine during that interval, may be of interest.

The

The first indication of the existence of gold in the vicinity was obtained by Mr. Wilson, who washed a few dishes of material removed in the digging of a small water-hole, about 60 yards to the west of the spot where the outcrop was afterwards found, from which good prospects of gold were obtained. Later, in about July, 1896, Mr. Jordan followed up the discovery made by Mr. Wilson, by "loaming" (testing the surface material, soil, and "rubble" by washing), and finally succeeded in tracing the gold to its source.

No prominent outcrop marked the position of the deposit, for directly over it, where a shaft was afterwards sunk, the soil and subsoil were 3 feet deep, the lower 12 inches of which yielded as much as 1 to $1\frac{1}{2}$ dwt. of gold to the dish.

A prospecting protection area was applied for by Messrs. Jordan and O'Rourke; and later, in about March, 1897, a syndicate, consisting of the above and Messrs. Buckmaster and W. B. Anderson, and known as the Gooda Creek Prospecting Company, obtained a lease of 17 acres from the owner of the land.

Partly surrounding the Gooda Creek Prospecting Company's ground on the west, north, and east sides is the lease of 20 acres held by the Yass Syndicate. They have been at work over twelve months, but up to the time of my visit had found nothing. Work has been carried on within a few feet of the west boundary of the Gooda Creek Prospecting Company's lease, including the sinking of four shafts, ranging from 15 to 71 feet in depth.

On the south-east side of the Gooda Creek Prospecting Company Mr. W. Ratchford has taken up an area of about 6 acres, which was held previously by another party, but abandoned after some trenching on the surface had been done. No work, I believe, has yet been done by the present holder of the land.

Eleven acres were held by O'Rourke and party on portion 187. This was taken up in August, 1897, and abandoned in October of the same year, after a shaft 20 feet in depth had been sunk on a small vein carrying auriferous quartz, and averaging 3 inches in thickness. Good prospects were obtained from this small reef near the surface, but at the bottom of the shaft the gold disappeared, the reef consisting of ferruginous quartz, with no gold or copper. A little trenching was also done on this ground.

Mr. T. Glasscock holds a portion of the road between portions 187 and 180, but no work has yet been done on it.

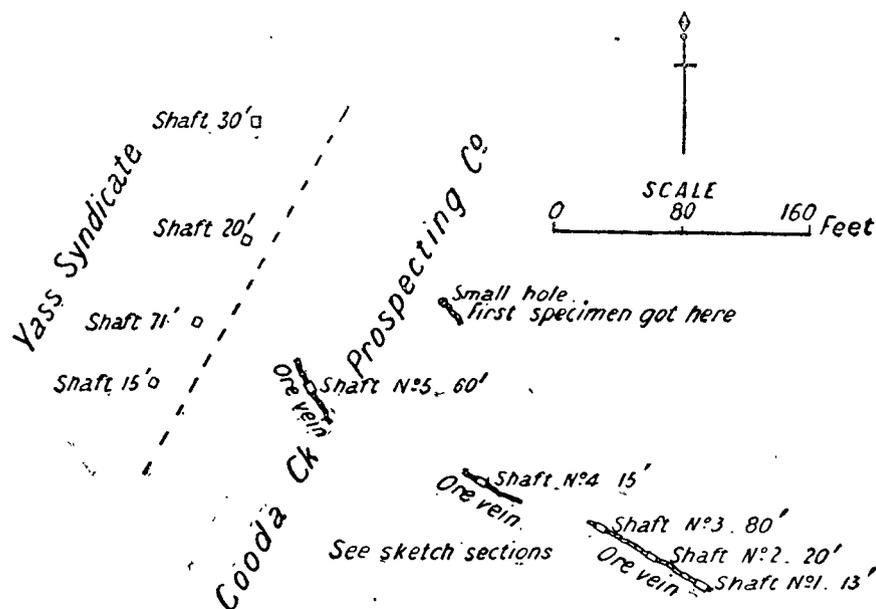
Gooda Creek Prospecting Company.

The gold-bearing deposits at Gooda Creek consist essentially of thin irregular veins of copper and iron pyrites rich in gold, and filling narrow cracks in the quartz felsite, which forms the prevailing rock in this neighbourhood.

These veins of ore, which are exceedingly rich in gold, do not comprise the whole of the gold-bearing material, for the country, the quartz-felsite, sometimes on only one side of the crack, but usually on both sides, has been impregnated to varying distances into its substance, in all probability by the ascending mineral-bearing solutions, which at the same time deposited the ore in the cracks themselves.

These mineralised portions of the country are, as one might expect, poorer than the solid ore in the veins; but, especially in the upper portions of the deposits, where, owing to the rapid decomposition of the pyritous material in them, and consequent disintegration of such impregnated country, separation of them from the mass of the quartz-felsite becomes easy, they are of sufficient value to save, as they carry from 2 to 3 oz. of gold per ton.

Sketch Plan, showing Workings on the Yass Syndicate and Gooda Creek Prospecting Company's Leases.



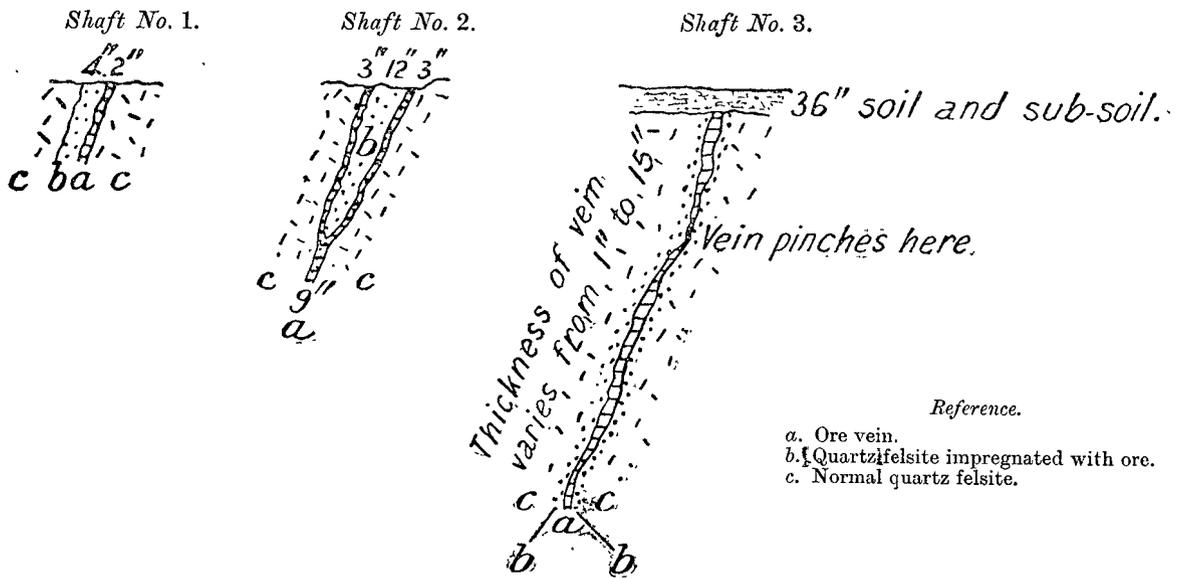
The existence of several more or less parallel veins has been proved by the present workings, as indicated on the accompanying plan.

The veins strike between N. 60° W., and N. 30° W., and underlie south-westerly at angles varying from 85 to about 65.

The

The accompanying sketch sections represent the structure of the deposits as seen in some of the shafts. In No. 1 shaft, which is 13 feet in depth, there is a small vein 2 inches in width accompanied on its hanging wall side by 4 inches of impregnated "country," which, in addition to the 2 inches of vein material, is being saved for treatment.

Sketch Sections of the Deposit as seen in Shafts Nos. 1, 2, and 3.



In No. 2 shaft, 20 feet in depth, there are two thin veins about 3 inches thick, carrying 10 oz. of gold per ton, and enclosing a foot of impregnated "country," which gives fair prospects. These were followed down, and found to unite near the bottom of the shaft into a vein 8 or 9 inches in width, which has yielded good ore.

In No. 3 shaft, 80 feet in depth, where most work has been done, some very good patches of ore have been obtained. The solid body of ore varied from 1 inch or less up to 15 inches in width, the widest portion occurring about 20 feet from the surface. At the surface, the vein was concealed by 3 feet of soil and subsoil, from the lower portions of which very good prospects were obtained by the dish.

The upper portions of the ore in the veins have been changed by the action of meteoric waters, copper carbonates, and oxide being produced, and a good deal of fine gold set free. A small quantity of black mineral, chiefly black oxide of copper, taken from the vein about 12 feet from the surface, and washed in my presence, gave an excellent prospect of very fine gold.

The general underlay of the vein in this shaft is about 65° to S.W. The "country" on both sides of the vein has been impregnated by gold-bearing copper pyrites, the decomposition of which in the upper part of the mine has accelerated the disintegration of the quartz-felsite.

Now that the shaft, however, has about reached the limit to which surface action has extended, the impregnated "country" presents an appearance not dissimilar to the unimpregnated "country," and great difficulty is being encountered in following down the vein, which difficulty, it may be expected, will not decrease as the mine increases in depth, especially where the vein pinches.

Small cross-veins occur in several places, but these have proved non-auriferous.

The ore, fortunately, is rich in gold, otherwise it would have been found impossible to work such narrow veins. Experience shows that the richest ore occurs in the upper portion of the mine, a phenomenon due, no doubt, to the chemical action of surface water; below the water level it may be expected that the value will be found to be lower, but more uniform.

Since the commencement of operations at Gooda Creek, eight parcels of ore have been despatched from this mine, of which number the former half went to Clyde and the latter to Dapto. The returns obtained from each are given; a glance at these will show the justification for the above statement as to the greater value of the ore in the upper portions of the mine:—

Date	Quantity	Destination	Value	oz. gold per ton
October, 1896.	2 tons	sent to Clyde Works	22	11
" 1896.	6 "	" "	11	" "
January, 1897.	10 "	" "	10½	" "
" 1897.	5 "	" (firsts)	5½	" "
March, 1897.	9 "	" (seconds)	5½	" "
May, 1897.	21 "	sent to Dapto Works	3½	" "
June, 1897.	6 "	" "	4½	" "
" 1897.	8 "	" "	3	" "
		{ 5 from surface { 3 from lowest level }		

Thus, the 67 tons of ore sent away for treatment contained in the aggregate 412 oz. of gold, or an average of more than 6 oz. per ton.

In addition to the above, 10 tons of ore were bagged at the mine, and awaiting treatment.

It may be pointed out that the prospects at Gooda Creek are very encouraging, but as greater depths are reached, and where the veins pinch, it will not be an easy matter to follow them. Moreover, the expenses incurred in sinking in the hard country will be very heavy.

My thanks are due to Mr. James Buckmaster, who very kindly conducted me over the workings, and gave me much information.

The Government Geologist.

I have, &c.,
J. ALEX. WATT,
Geological Surveyor.

Sir,

31 December, 1897.

I have the honor to present my Progress Report for the past year.

The removal of the offices of the Branch at the close of 1896 to the Lands building, while conducing much to increased efficiency of work and economy of time, has led to a decided falling off in the numbers of persons calling for information. It may be partly to this reason that the number of samples left for examination has not reached the record put up in 1896. Of these, 5,131 have been sent to the laboratory to be assayed for one or more metals—about the same number as in 1895. It has, in consequence, been possible to push on vigorously with the museum work, and after five years' labour, the registration and arrangement of the collections under my care is practically completed. The whole has been arranged and labelled on a plan that has met with great success, and has largely added to the usefulness of the museum. The preparation of a popular handbook has already been commenced. The completion of so much dead work should enable a forward policy to be pursued in the near future, but as the museum has been dealt with at length in a special report (*Appendix 26*), no further reference to this is now necessary.

Twenty-two collections of ores, &c., were prepared during the year for various institutions, and will be found detailed in an Appendix.

The number of letters written during the year was about 4,000.

The museum has lately been opened on Saturday afternoons and public holidays with a result that has been on the whole most satisfactory; indeed, the interest taken in the collections by visitors, including the Federal Convention Delegates, and the opinions expressed, have been most gratifying.

Early in the year two boxes containing small Australian diamonds were stolen by some one in possession of a duplicate key. The appointment of G. Baker as day caretaker has enabled arrangements to be made which will, it is hoped, render such an occurrence impossible in the future.

A special collection of typical minerals, rocks, and fossils has been prepared for the use of students, and has been highly appreciated. The minerals illustrate Rutley's text-book, and the rocks and fossils are those referred to in general treatises on geology. On application *bonâ fide* students are allowed to handle the specimens freely. It is to be hoped that the new ground thus broken may be further worked, and the Mining museum made an active centre of educational work.

Among the additions made to the collections during the year may be noted the two Mungindi meteorites procured by the untiring efforts of Mr. E. C. Whittell, and the collection of marbles from Bathurst, Molong, and other districts, presented by the Government Architect. The Mungindi meteorites together originally weighed about 1 cwt. They have been cut by Professor Ward, of Rochester, U.S.A., and now form an attractive exhibit in a special case. The marbles have been repolished by Mr. Gilding, and are mounted on the south wall of the museum.

Mr. Edgar Hall, of Rivertree, presented, through Mr. Jaquet, a very fine specimen of pale green fluorite, associated with native copper, from Bald Nob, Armidale.

During the year I have examined more than 300 thin sections of rocks. The petrographical work has been much facilitated by the substitution of a small diamond-cutting lathe in place of the emery wheel formerly in use. The determinations are far too numerous to be detailed here. Two special reports were made on rocks collected by the Government Geologist from Gunnedah District and West Australia respectively. The results obtained from the specimens of country rocks available from the Kalgoorlie Gold-field were of an interesting and important character, and it is hoped to pursue this matter further. A series of rocks collected by Mr. Carne from the Snowy River illustrated in a most interesting manner the progressive stages in the crushing of an intrusive granite, it passing into a gneiss. Tuffs were recognised among the andesitic country rocks of the Bushman's Mine, Parkes, and in the Post-office mine, Stuarttown. This is interesting, as indicating that normal volcanic phenomena were manifested here in early Palæozoic. Several of the remarkable obsidian bombs, now well-known as occurring scattered over Australia, were received from Thackaringa, Cobar (?), Tumbarumba, and Uralla Districts. From Uralla several were obtained by the Mining Registrar, Mr. Roman, who kindly supplied an interesting note on their mode of occurrence there. An analysis of one of these was made by Mr. Mingaye, was of considerable interest. It is hoped that some more work may be done on these bombs very shortly. The detection (by Mr. Mingaye) of vanadium in a green clay from the Tomingley Mine, and of a good percentage of strontium in an earthy galena-bearing barytes (locality uncertain), were noteworthy. Crystallised pyromorphite was recognised from the Wallah Wallah Silver Mine, Rye Park, and a quantity obtained by the courtesy of Mr. T. S. Huntley and the manager.

Many inquiries have been made about tellurides, but no further discoveries are known. Tellurium, in combination with bismuth, has been found at the following localities:—Captain's Flat; Moor Creek, Tamworth; Saw-pit Gully, Tamworth; Kentucky; Slippery Creek, Tarana; and (in alluvial) near Glen Innes. An interesting letter dealing with the Undercliff deposits of plumbago was received from the Springfield Facing Co., Chicago, in which they say: "We are positive it would have made a good facing and could be used to advantage wherever German lead is used in the manufacture of foundry facing. It is true that it would probably be impossible to ship it to this country at the price.

On any work in the foundry where the facing is used wet, such as dry sand or cores, it would be a very good article indeed." But few remarks are necessary upon the results of the assays. Some of the more important are tabulated in Appendix 25. The whole of these were made in the departmental chemical laboratory at Clyde, under the direction of Mr. Mingaye.

Gold.—Concentrates and tailings are now never assayed, except by direction of the Minister on special reason being shown, and on no account whatever are samples assayed in which an appreciable quantity of free gold is visible. Very many of the samples were from districts in which auriferous reefs are known to occur, and their publication would serve no useful purpose. In the Appendix are tabulated some results from localities not so well known or that are otherwise interesting. In all cases the assay results are given in round numbers.

Silver.—Numerous rich silver ores have again been received from the Rockvale and Armidale Districts. A gossan (1327) from the former place assayed 460 oz. of silver. Generally speaking these samples consisted of quartz with arsenical pyrites and ruby silver ore disseminated through it. Sample 1380 was peculiar in consisting of an iron-stained calcareous rock apparently of granitic origin. It contained pyrargyrite and assayed—gold, 4 dwt.; silver, 421 oz. Samples 157 and 1382 contained 13 dwt. and 6 dwt. of gold respectively. From Rocky Creek, Swanvale, pyritous ores assaying up to 90 oz

of

of silver, and numerous samples of mixed sulphide ore from Drake assaying up to 100 or more oz., were received. Prospecting in the Burragorang District has been continued; samples of quartz, ironstone, and galena assaying up to 250 oz. and cerussite nearly 500 oz. to the ton. The prospecting being carried on in the Kanimbla Valley District has brought to light some rich ores of both gold and silver. The silver occurrence is noteworthy, inasmuch as it appears to be sometimes contained by coarsely-crystallized galena, a somewhat unusual thing.

Copper.—The feature of the present year's work has undoubtedly been the activity in prospecting for copper, consequent on the improved condition of that metal in the market. Very many samples have been examined and numerous assays made. These latter are perhaps more misleading than most, inasmuch as picked samples of copper ore are so readily obtained in many mining districts, and this fact must always be borne in mind when noting the results of assays of copper ores.

Many samples came to hand from the important find of massive copper-pyrites and bornite from Bundarra, in the Inverell District. As this field is referred to in detail in a report by Mr. J. B. Jaquet, it is sufficient to state that a number of samples of ironstone not in the least resembling copper ore have come to hand from time to time. The Bundarra ore is somewhat misleading in appearance. For instance, an assay of 25 per cent. being obtained once when one considerably higher had been anticipated. Judging from the samples, some important finds have been made in the Cooma District. Assay results will be found detailed in the Appendix. Some of these ores, also, are very misleading, their copper (and lead) contents being sometimes very much higher than one would expect from the ferruginous appearance of the stone. While the silver contents of these Cooma ores may amount to 30 oz., gold is rarely present in appreciable quantity.

Good results have been obtained from ores from Bunnamagoo, near Rockley: a copper gossan (2375) containing 32 per cent. of metal; copper pyrites (2370), 19 per cent.; and a siliceous carbonate ore (2805), 33 per cent. Small quantities of silver were sometimes detected. Details of some of the more important results will be found in the appendix.

Wolfram and Scheelite.—No samples of scheelite have been received, and but few of wolfram. A peculiar specimen of the latter, containing 62 per cent. of tungstic trioxide, came from near Purnamoota.

Antimony.—Very few specimens of antimony ore were received, and only two or three of these appeared to be of any importance. From Ulmarra, Clarence River, an interesting specimen showed acicular radiating crystals of antimony oxide with pulverulent yellow material, and contained 63 per cent. of antimony, 2 dwt. gold, 1½ oz. silver.

Cobalt.—Cobalt has been detected in a number of ores, but none appear likely to be of any importance except that from Port Macquarie. This latter is dealt with in a report by Mr. Jaquet, in which will be found complete analyses both of the new discovery and of the ore from the old workings.

Manganese.—Many samples of black oxide were examined, but very few were worth assaying.

Iron.—Partial analyses were made of further discoveries of granular magnetic iron ore from the Raymond Terrace District. These ores, which are of importance from the small amount of titaniferous iron present, have been described by Mr. Jaquet.

Ochre.—A few ochres were examined, but only one or two gave favourable results. A hard, yellow material (571) from Dubbo contained 65 per cent. of ferric oxide and only 5.33 per cent. of grit. An ochre (2,022) from the Wingello District contained 68 per cent. of ferric oxide.

Limestone.—The newly-established smelting-works have occasioned a demand for limestone flux. Numerous samples of calcareous tuffs (volcanic rocks) were brought from the Illawarra District. These were of no value in themselves, nor can they be regarded as being in any way indications of limestone. A crystalline limestone (1459) from Gloucester was found to contain 89 per cent. of carbonate of lime.

Refractory material.—Several samples of clay and disintegrating granite (2262, 2263) from Goulburn District, Parish Towrang, were analysed and tested. Mr. Mingaye reported that the test bricks stood the tests well, showing no signs of fusion. From the analyses which are given in Appendix 26, it will be seen that the alkali percentage is much higher than it should be theoretically. A white clay (2344) from the Lower Clarence River was practically tested, with the result that the bricks showed no sign of fusion.

Mr. Harper has this year been wholly occupied at the Head Office in dealing with the assay and similar work. His assistance in examining the samples is of the greatest value. He also assists the Librarian with his routine work. Mr. Morrison has prepared the collections of minerals for public schools and other institutions, attended to the registration of specimens, and given information to visitors at the museum. Mr. Dobson has rendered general assistance, more particularly in the rearrangement of the museum collections.

My thanks are especially due to my colleague, Mr. W. S. Dun, the Palæontologist and Librarian, for the trouble he has taken in arranging the fossil collection. Much interest has been taken in the mounting, under Mr. Dun's superintendence, of the limb bones of *Diprotodon* in an erect position, a much clearer idea being thus conveyed of the size of the animal.

During the year I have contributed several papers to the Geological Survey Records, one, written in conjunction with Mr. Dun, dealing at some length with the diatomaceous earth deposits of New South Wales.

As Appendices will be found the following:—

- Report on the country rock of the Kalgoorlie Gold-field, Western Australia.
- List of donations to the Mining museum.
- List of institutions to which collections have been sent.
- A tabulated statement of the more important analytical results and assays.
- Special report on the Mining and Geological Museum.

I have, &c.,

The Government Geologist.

GEORGE W. CARD.

APPENDIX 23.

Report on some West Australian Rocks.

Sir,

I have the honor to report as follows regarding the rocks collected by yourself from certain West Australian Gold-fields:—The work has involved the examination of many thin sections, and the results are of considerable importance, particularly so in the case of the Kalgoorlie rocks. These latter form a group by themselves, and I propose at present to deal with them as such, postponing their detailed examination till later. The microscope slides have been expeditiously prepared by Mr. C. Murton, and, in addition to other assistance, the specific gravities of the whole series have been determined by Mr. M. Morrison.

I have, &c.,

GEORGE W. CARD,

Curator.

The Government Geologist.

Kalgoorlie.

In addition to the specimens collected by the Government Geologist, I have had the advantage of a small series, kindly presented by Mr. W. Frecheville, A.R.S.M., F.G.S., and further, of a copy of analyses made for that gentleman by Dr. Helms of ore and country rock respectively.

The evidence obtained by examining and comparing as many slides as possible shows that the country rocks from the different mines on the field, differing as they do in colour, structure, &c., are one and the same rock; and further, that the lodestuff itself is nothing but an extremely altered form of the same.

The country rock is generally soft, of a green colour, and has a schistose structure, which sometimes occasions a considerable amount of fissility. The divisional planes exhibit a silvery sheen, due to the development of secondary mica.

That this rock is of igneous origin is evident from its mineralogical constitution and structure. Quartz, feldspar, ilmenite, and magnetite are among the original constituents, and that characteristically igneous structure, the micro-pegmatitic, so common among the acid eruptives, is sometimes well shown (*e.g.*, the Australia and Ivanhoe country rocks). The green colouration is due to chlorite, which acts as a pigment when finely disseminated as it generally is. When chlorite is absent the rock is generally lighter in colour. Carbonates of lime and magnesia are abundantly present, occurring either as veins or disseminated through the rock mass. Ilmenite, with the characteristic leucoxene alteration product beautifully shown, is commonly present, more especially in the country rock but also in the lodestuff. Magnetite in small crystals readily picked out from the powdered rock is fairly common, being frequently intimately associated with the ilmenite. Pyrites is abundant in the lodestuff, occurring in the form of minute crystals disseminated through it, or arranged in strings. Chlorite is generally present, usually in a fine, scaly condition. It is generally scattered through the rock, but occasionally appears to form pseudomorphous replacements. Primary quartz is seldom, if ever, entirely absent. In the country rock it is abundant, and occurs in larger or smaller pieces, always giving more or less evidence of the stresses undergone. Secondary quartz is common in the lodestuff. Feldspar is seldom present in recognisable crystals, although distinctly so in the country rock of the Australia East Lease (140-foot level). Its original presence can, however, be frequently inferred.

The specimens from the Boulder Main Reef may be specifically referred to for the purpose of further exemplifying the nature of the rock. The hanging-wall rock contains quartz in distinct areas and fairly large fragments, ilmenite, magnetite, and chlorite in more or less well-defined areas (apparently pseudomorphously replacing feldspar). The foot-wall rock is very similar. Between the true hanging-wall rock and the lode is a breccia-like material (8448) which has essentially the same composition, but the chlorite is more diffused while at the same time being almost absent from certain areas. Carbonates are abundant, especially in the areas just referred to as being poor in chlorite. It would appear as if the breccia-like appearance were delusive, and were due to the unequal distribution of the chlorite. In immediate juxtaposition with the lode on the hanging-wall side is a material traversed by veins of carbonates and of secondary quartz. It is of a much more streaky character, and is, to some extent, made up of lenticular areas. Much pyrites is present. The lodestuff from the Great Boulder Mine, which may be referred to here by way of comparison, is highly pyritous and calcareous and contains chlorite; quartz is present in smaller grains than in the country rocks. The only rock specimen available that differs slightly from the rest of the series is that from Lake View and Boulder Junction. This does not show quartz, and has a crypto-crystalline ground mass in which the outlines of dimly polarising feldspars may be seen. This may be only a local variation. The lodestuff (8471) from the Ivanhoe may be described as indicating the operations that have gone on. Very much pyrites is present in small crystals scattered through the mass. A little ilmenite (with leucoxene) is present. Veins of carbonates occur which traverse crystals of primary quartz without interrupting the optical continuity of the several portions. The carbonate-veins are intersected and partially replaced by secondary quartz. The whole is traversed by a line of shearing which shifts the secondary quartz-veins; consequently it is of later date than these. Of the original rock there is little identifiable left beyond areas of quartz with indefinable boundaries.

Conclusions.—The specimens examined comprise lodestuff and country rocks in the immediate vicinity of the lodes from the following mines:—

Boulder Perseverance.	Lake View Consols.
Great Boulder.	Australia.
Boulder Junction.	Australia East Lease.
Boulder Main Reef.	Kalgurli.
Lake View.	

1. The country rock on the hanging and footwall sides of the deposit is one and the same.
2. The country rock is of igneous origin and belongs to the acid group; in all probability it is a quartz-feldspar porphyry, but may approximate to a granite in places.
3. The country rock has undergone great alteration, both chemical and mechanical. It would appear probable that deep-seated alteration occurred prior to the lateral crushing that imparted to the rock its fissility.

fissility and schistose structure. Subsequently, solutions containing metallic salts, silica, carbonates of lime and magnesia, and possibly alumina, permeated the rocks, depositing their contents in the spaces resulting from the crushing just referred to and by pseudomorphous replacement.

4. The "lodes" represent belts along which the crushing effects have been most severe, and the deposition of secondary material more abundant. They are, in fact, more highly altered portions of the country rock.

5. The terms "slate," "talc-schist," "schist," etc., that one sometimes sees applied, would appear to be unwarranted and indeed absolutely incorrect. "Talcose" may, perhaps, be admissible as an adjective, but there is apparently no reason for suspecting the presence of talc at all.

GEORGE W. CARD.

APPENDIX 24.

INSTITUTIONS and Individuals to whom Collections of Minerals have been sent during the year:—

Balmain—	Pymont—Superior Public School.
Canowindra—School of Arts.	*San Francisco—State Museum.
*Emmaville—O'Donnell, M. J.	Strathfield—Dominican Nuns.
* " " Chandler, —	Sydney—Furber, T. F.
*Freiburg (Saxony)—Imperial Bergakademie.	" " St. Joseph's College.
Helensburgh—Sellers, H. E. O.	" " Marist Brothers' College.
Hillgrove—Public School.	" " Kirkpatrick, F.
London—Imperial Institute.	Tumut—School of Arts.
Maitland—Dominican Nuns.	Victoria—Green Wills School of Mines.
Menangle—School of Arts.	Tacoma (U.S.A.)—Hewitt, H.
North Sydney—Church of England Grammar School.	Yass—The Warden.

* Those marked with an asterisk were in exchange.

APPENDIX 25.

Gold.

25. Bonanza Mine, 6 miles west of Uralla—Arsenical pyrites	Gold, 1½ oz.
40. Bongongolong—Quartz—Felspar porphyry partially silicified and traversed by veins of pyritous white quartz	" 7 dwt.
398. Raglan (Bathurst)—Quartz with iron and arsenical pyrites	" 16½ oz.
NOTE.—Other assays were subsequently made of this stone, with very much lower results.	
430. Cugong—Iron-stained quartz	" 23½ "
466. Byng—Copper-stained quartz	" 5 "
509. Forty miles west of Eden—Rotten granite with quartz	" 1½ "
513. Corinda Creek, Woolgoolga—Quartz, with carbonaceous clay	" 5½ "
531. Mount Boppy—Siliceous ironstone	" 4 " Silver, 15 oz.
533. The Peak—Siliceous slate	" 2 "
2277. The Peak, Cobar—Ferruginous quartz	" 17 dwt.
549. Molong District—Light-coloured garnet rock	" 1½ oz.
932. Green Swamp, Mudgee—Quartz and fahlore	" 39 "
1076. Wiseman's Creek—Cellular quartz	" 13¾ " " 11 "
1091. Bowman River—Banded quartz	" 3 "
1163. Harden—Clay slate	" 5½ "
1210. Red Range, Glen Innes—Sulphide of bismuth (bismuth, 27 per cent.)	" 1½ " " 10 "
1376. Cunningar—White quartz, heavily charged with sulphides	" 4¾ " "
1496. Salvation Hill, Gulgong—Quartz highly charged with arsenical and iron pyrites (by amalgamation gold, 10½ dwt.)	" 2 "
1525. Werris Creek—Quartz and lodestuff	" 4½ "
1720. West Wyalong—Jasperoid quartz, with a crust of sintery material	" 57 " Silver, 9 oz.
1753. Mayday Mine, Gilgunnia—Copper and iron stained slate passing into ironstone (lead, 3 per cent.; copper, 4 per cent.)	" 1 " " 86 "
2192. Burragate (Naden's Claim, depth, 65 ft.)—Ferruginous siliceous material	" 1½ "
2194. " (Key's Claim, depth, 12 ft.)—Ferruginous quartz	" 18 "
2231. Forest Reefs, Ballarat Company's No. 5 Bore—Crushed material	" 2 oz. 12 dwt. 23 gr.
2232. " " " Pebbly wash	" 12 dwt. 9 grs.
2233. " " " Wash	" 3 " 14 "
2236. Bulladelah—Quartz and calcite with finely disseminated pyrites	" 3½ oz.
2286. Girilambone—Quartz	" 4 "
2420. Pye's Creek—Crushed quartz (copper, 9.6 per cent.; bismuth, 2½ per cent.)	" 2½ " Silver, 21 oz.
2459. Carcoar—Pyritous decomposed material	" 42 "
2527. Wyndham—Pyritous stone	" 1½ "
(Concentrates, 6.3 per cent., assaying	" 18 " " 10 ")
2564. Clifton Three Hills, Rye Park—Glassy quartz with iron and copper pyrites	" 16 "
2747. Bungonia, 7 miles east of—Cellular quartz	" 24½ "
2837. Restdown—Quartz	" 7½ " " 2 "
3151. Binalong (Kangaroo Reef)—Iron-stained quartz with galena and pyrites	" 1½ "
3156. Sofala (Wood's Reef)—Decomposed felspathic rock	" 17½ dwt.
3411. Towamba—Iron-stained quartz	" 5½ oz. " 2½ "
3422. Jingera (Robertson's)—Pyritous quartz	" 14½ " " 17 "
3672-79. Cobar District—Quartz	" from 3 dwt. up to 2½ oz.
3807. Mount Werong—Quartz with galena	" 18 oz. Silver, 7 oz.
4010. Oakey Creek, Capertee—Quartz with coarsely crystallised galena	" 5 " " 4½ "
4198. Florida (Cobar)—Slate, ferruginous quartz, &c.	" 19½ " " 6 "
4298. Eurongilly—Quartz with a little copper pyrites	" 3 "
4417. Tooloom—Quartz with greenish clay	" 2½ "
4521. Overflow—Ironstone and quartz	" 2 "
4834. Timbilica—Ferruginous cavernous quartz	" 9½ "
4875. Rocky Hall, Monaro—Iron-stained cellular quartz	" 2½ "
4890. Dry Creek—Iron-stained quartz and calcite	" 21½ "
4919. Forest Reefs—Siliceous pyrites ore (copper, 1.6 per cent.)	" 64½ " " 17½ "
4956. Palmer's Oakey—Quartz, calcite, &c.	" 13½ "
5025. Mount Dawson—Pyritous quartz	" 12½ "
5046. Moonan Brook, Collett's Reef—Quartz and calcite with carbonaceous partings and a little pyrites	" 34½ "
4983-90. Frogmore—Schists	" a few dwt. up to 10 oz.

2235.	Little Hartley—Ironstone gossan with a little galena	Silver, 41 oz.
3844.	Hartley—Ironstone	Gold, 11 dwt.
3845.	"	" 3 oz.
3847.	" Decomposed stock	" 16 dwt.
3848.	" Crushed quartz	" 6 oz. Silver, 3 cz.
2254.	Kanumbra Valley—Ironstone gossan carrying galena	Silver, 73 "
2340.	" Galena with ochreous material	" 142 "
2404.	" Coarsely crystallised galena	" 112 "
2922.	" Ferruginous quartz	Gold, 3 1/2 "
2923.	" with a little galena	" 1 oz 17 dwt. Silver, 29 oz.
3960.	" Ferruginous quartz	" 2 1/2 oz. Silver, 4 oz.
3961.	" Ferruginous pyritous quartz	" 7 "
4622.	" Crushed pyritous quartz	" 15 dwt. " 4 "
3216.	Duddevarra—Somewhat pyritous quartz	" 11 "
3217.	" Coarsely crystallised galena with quartz (lead, 41 per cent.)	" 6 1/2 " " 6S 1/2 "
3265.	" Ironstone	" 1 oz.

Silver.

4544.	Hampton—Earthy copper-stained carbonate of lead	Silver, 63 oz.
85.	Bee Mountain, Cobar District—Iron stained slate	Gold, 17 dwt. Silver, 72 oz.
110.	Near Singleton—Quartz with pyrites and blende (very small sample)	" 2 1/2 oz. " 369 "
162.	Dorah Creek—Quartz with ochreous material	Silver, 143 oz.
532.	Near Mount Boppy—Slate	" 94 "
534.	The Peak—Slate	" 70 "
801.	Rigby's Reef, Major's Creek—Pyrites, fahlerz, and ironstone (copper, 8 per cent)	" 45 "
855.	Wollomombi—White quartz with arsenical pyrites	" 1,327 "
994.	Quealy's Mine, Rivertree—Mixed sulphide ore	" 73 "
1041.	Rivertree—Ferruginous cellular quartz	" 238 "
1050.	Near Tingha—Ferruginous copper stained granitic rock (copper, 16 per cent.)	" 65 "
1332.	Tinda Tank—Galena	" 39 "
1568.	Piccaninny Claim, Yalgogrim—Galena and cerussite (lead, 34 1/2 per cent.)	" 57 " Gold, 6 oz.
1934.	Restdown, Nyngan—Massive cerussite (lead, 39 1/2 per cent)	" 67 "
2014.	Near Gilgunnia—Ferruginous pyritous material	" 58 "
2015.	" Slate, containing green carbonate of copper (copper, 11 per cent.)	" 76 "
2050.	Mount Sperraby, Bolivia—Galena with iron and copper pyrites	" 193 "
2553.	Near Mudgee—Galena and cerussite	" 80 "
3163.	Cooma—See Copper.	
3181.	Carcoar—See Copper.	
3371.	Wallah Wallah Mine, Rye Park—Galena with pyromorphite (lead, 44 per cent)	" 58 1/2 "
3424.	Black Range, Wolumla—Ironstone	" 116 "
3457.	Cooma—Carbonate of lead (lead, 39 1/2 per cent.; copper, 1 per cent.)	" 57 1/2 "
4077.	Twenty miles north-west of Tingha—Arsenical pyrites	" 351 "
4334.	Waverley Mine, Murrurundi—Quartz	" 96 1/2 "
4387.	Mount Bullen, Queanbeyan—Zinc blende	" 93 " Gold, 6 1/2 dwt.
4709.	Tibuster Creek—Blende and galena	" 173 " " 10 "
4780.	Boro—Carbonate of lead (lead, 55 per cent.)	" 48 1/2 "
5111.	Upper Burragorang—Galena with quartz	" 115 "
5112.	" Cerussite with galena and quartz	" 557 "

Copper.

4446.	Cooma, Bushy Hill—Oxide, sulphide, and carbonate	Metallic copper, 30 per cent.
15.	" Middle Flat—Copper gossan	" 20 " Silver, 7 1/2 oz.
225.	" 5 miles north of—Copper gossan	" 35 "
2691.	" 5 " from—	" 42 " " 28 "
2695.	" 5 " " Galena and copper pyrites (siliceous ore)	" 18 " " 26 "
2697.	" 5 " " Copper glance	" 41 " " 28 "
3633.	" Dartmoor—Copper lead gossan (lead, 12 per cent.)	" 24 " " 51 "
1458.	Jindabyne—Copper pyrites	" 49 "
4407.	Adaminaby—Copper pyrites in quartz	" 24 "
4216.	Barraba—Green carbonate ore	" 44 " " 11 "
1245.	Upper Bingera—Copper pyrites	" 65 "
55.	Tarago—Siliceous copper gossan	" 34 " " 21 "
142.	Shooter's Hill—Siliceous oxide and carbonate	" 19 "
304.	Near Kempfield (Trunkey)—Copper pyrites and carbonate (siliceous)	" 27 " " 4 "
594.	Gloucester (Hook's Reef)—Copper gossan	" 11 " " 10 "
596.	Scone (Watson's Reef)—	" 9 " " 8 "
598.	Walcha (Jones' Reef)—	" 11 " " 13 "
671.	Quedong—Galena, quartz, calcite, barytes, and copper pyrites	" 21 "
688.	Abercrombie—Siliceous carbonate ore (gold, 2 dwt)	" 15 "
976.	1 1/2 mile from Luc Station—Ferruginous quartz and slate with copper carbonate	" 24 " " 9 "
1187.	Jacqua Creek, Shoalhaven—Copper pyrites (siliceous)	" 12 "
1189.	10 miles from Marulan—Copper pyrites and blende	" 23 "
1193.	4 1/2 miles west of Capertee—Copper pyrites with quartz, calcite, &c.	" 19 "
1244.	Bombole, Tumut—Ferruginous carbonate ore	" 45 "
1442.	Nangerbone Run, Nymagee—Copper gossan	" 17 " " 7 "
1493.	Cobborah—Siliceous carbonate ore (gold, 2 oz. 16 dwt.)	" 20 " " 8 "
1521.	Armidale—Copper pyrites and carbonate ore (siliceous and calcareous)	" 14 " " 11 "
1534.	Fourteen miles east of Black Range (Overflow District)—Copper pyrites and carbonate (siliceous)	" 42 "
1763.	Yulgilbar—Copper gossan	" 16 " " 15 "
1864.	Davisville—Copper pyrites	" 26 "
1886.	Binalong—Copper gossan in slate	" 12 "
1917.	Stuart Town—Ferruginous calcareous ore	" 11 "
1993.	Grafton—Siliceous brown limestone containing native copper and cuprite	" 5 "
2495.	One mile from Carcoar—Copper gossan	" 23 "
2902.	Junea Reefs—Siliceous carbonate ore (gold, 13 dwt.)	" 13 "
2966.	Gundagai—Carbonate ore	" 19 "
3090.	Glanmire—Copper pyrites (siliceous and ferruginous)	" 14 "
3125.	Tuglow—Carbonate and sulphide ore (siliceous)	" 29 " " 11 "
3152.	Mount Werong—Siliceous ore (native, red oxide, &c)	" 18 "
3178.	Grassmere—Carbonate	" 14 " " 25 "
3181.	Carcoar—	" 24 " " 61 "
3247.	Boro—Oxide and carbonate with ferruginous slate (gold, 9 dwt.)	" 32 " " 2 "
3522.	Clefdon (County Bathurst)—Carbonate and sulphide (siliceous)	" 17 "
3618.	Molong—Siliceous copper gossan	" 14 " " 28 "
3640.	Five miles from Adelong—Slate impregnated with carbonate of copper (gold, 2 dwt.)	" 15 "

3742. Gundagai, 10 miles south of—Copper-bearing ironstone (gold, 6 dwt.)	Metallie copper, 11 per cent.
3860. Bredbo—Copper gossan	" " 37 "
4094. Sunny Corner—Cuprite, carbonate, &c.	" " 59 " Silver, 3 oz.
4124. Deepwater—Copper pyrites and carbonate with fluor spar (siliceous).....	" " 18 " " 32 "
4159. South-east from Jervis Bay—Siliceous ore (carbonate, oxide, sulphide)	" " 30 " " "
4177. Lowther—Siliceous ore (carbonate, sulphide)	" " 39 " " 15 "
4307. Frogmore—Carbonate	" " 36 " " 6 "
4355. Mount Werong—Copper glance	" " 51 " " 3 "
4728. Bark Hut, Monaro—Copper pyrites and carbonate (siliceous)	" " 17 " " "
4735. Bucca Creek—Carbonate.....	" " 43 " " 5 "
4747. Swamp Oak—Siliceous ore	" " 23 " " "
4762. Cudjegang—Copper pyrites, &c. (siliceous).....	" " 30 " " 6 "
4804. Glenborne, O'Connell—Crushed carbonate ore	" " 39 " " 3 "
5024. Hillman's Tank, Nymagee—Red oxide and carbonate	" " 24.7 " " "
4960-3. Mountain Run, Rockley—Ironstone, mica schist, &c., with sulphides and carbonates	" " 12-17 "

Tin.

178. Cobar District—Tinstone in quartz	Metallie tin, 22 per cent.
2237-43. " " with greenish clay	" " 18 to 32½ per cent.
1856. Mount Hope District—Siliceous ironstone (silver, 6 oz.)	" " 3 per cent.
1857. " " Quartz, showing tinstone	" " 8½ "
1858. " " Very ferruginous quartz (silver, 6 oz.)	" " 4½ "
2367. Black Mountains, 15 miles east of—Black sand	" " 45½ "
2549. Armidale, near—Black sand	" " 14½ "
3068. Orange, near—Ferruginous copper-stained rock with garnet (silver, 10 oz.)	" " 12 "
3176. Molong—Siliceous magnetic iron ore	" " 0.8 "
3210. " Greenish garnet rock (silver, 3 cz.)	" " 5 "
3270. Port Macquarie—Decomposed rock	" " 19½ "
4770. " 30 miles from—Decomposed granite rock with disseminated tinstone.....	" " 17½ "
4610. Smoky Cape, 16 miles from—Lode tin ore	" " 16½ "
3775. Rockvale—Ferruginous stone with crystallised tinstone	" " 23 "

Bismuth.

24. Tent Hill—Decomposed micaceous rock	Metallie bismuth, 3.46
82. Glen Creek, Emmaville—Carbonate and sulphide ore	" " 2.77
1082. " " Arsenical pyrites with clay containing minute crystals of tourmaline	" " 0.96
1210. Red Range, Glen Innes—See Gold	" " 26.85
1606. " " Granitic rock heavily charged with sulphide of bismuth (gold, 17 dwt.)	" " 12.95
3109. Pambula—Traces of bismuth in arsenical pyrites and quartz.	
3280. Yarrow Creek, Red Range—Bright yellow pulverulent material.....	" " 3.67
4059. Dundee—Quartz, wolfram, and carbonate of bismuth	" " 1.42

Antimony.

62. Sulphide and oxide—Barraba, 18 miles north-west of	Metallie antimony, 55 per cent.
413. " Glen Innes District.....	" " 64½ "
485. " Barraba, 17 miles north of—(siliceous)	" " 59½ "
958. " Armidale, 8 miles north-west of	" " 64½ "
2662. " Duval	" " 60 "
4732. " Bucca Creek—(siliceous)	" " 42 "

Cobalt.

540. Burnt Yard Creek—Iron and arsenical pyrites	Metallie cobalt, 1.75 per cent.
566. Fernbank, Shoalhaven River—Ferruginous quartz with wnd	" " 1.31 "
2333. Mount Boppy, Cobar District—Siliceous black oxide of manganese.....	" " 2.23 "
3249. Temora—Siliceous black oxide of manganese	" " 0.53 "

(See also Reports by Mr. Geological-Surveyor Jaquet).

Manganese.

80. Five miles east of Peak Hill—Pyrolusite (silica, 4.3 per cent.; iron, 10 per cent.; phosphoric acid, 0.473 per cent.)	Metallie manganese, 48 per cent.
1660. Tamworth—Black oxide	" " 47½ "
1823. Queanbeyan—Black oxide with ferruginous clay	" " 45 "
3124. Mudgee—Black oxide	" " 41½ "
3372. Bodangora, Wellington—Black oxide (gold, 2 dwt. per ton)	" " 35 "
3472. Barlow's Hill, Mandurama—Calcareous ore, probably carbonate in part	" " 31 "
3791. Flyer's Creek, Burnt Yards—Black oxide	" " 49 "
4385. Ten miles from Moonbi— "	" " 52 "

Iron.

1449. Bog iron ore from Jervis Bay.
3688. Concretionary brown iron ore from Carlo's Gap, near Capertee.

	1449	3688
Moisture at 100° C.	2.41	2.82
Combined water.....	8.65	12.28
Ferric oxide (Fe ₂ O ₃)	59.91 (= 41.94 metallie iron).	53.51 (= 37.59 metallie iron).
Ferrous oxide (FeO).....	nil	0.20
Manganous oxide (MnO).....	trace	trace.
Alumina (Al ₂ O ₃)	3.45	14.06
Silica (SiO ₂)	24.63	16.40
Lime (CaO)	0.29	0.20
Magnesia (MgO)	0.23	0.18
Phosphoric anhydride (P ₂ O ₅)	0.32	0.61
Sulphuric " (SO ₃)	0.47	trace.
	100.36	100.26

1591. Clyde River, somewhat spongy siliceous brown iron ore	Metallic iron, 41·7 per cent.
2675. Parkes, stratified magnetic iron ore	" 45 "
2803. Braidwood, ironstone	" 59 "
2855. Mount Keira, ironstone	" 54 "
3358. Yalwal, ironstone (silica, 18·0 per cent.)	" 43 "
3409. Mount Kembla, brown iron ore	" 40 "
3814. Wingello (Ph. Berrima), siliceous brown iron ore	" 58 "
3878. Tarana (2 miles from), magnetite	" 60 "
4015. Penrose, brown iron ore	" 53 "
4039. Shoalhaven District, brown iron ore	" 46 "

(See also Reports by Mr. Geological Surveyor Jaquet.)

Coal, &c.

	Locality.	Substance.	Hygroscopic moisture.	Volatile hydrocarbons.	Fixed carbon.	Ash.	Sulphur.	Specific gravity.	Calorific power.	Notes.
150	Seven miles from Mudgree Line	Boghead	0·50	67·75	11·10	20·65	0·741	1·161	.....	Coke lustrous, fairly well swollen.
449	Average of M'Cosker's Seam, Gunnedah.	Coal	2·85	36·10	54·25	6·80	0·63	1·342	12·36	
603	Bulli	Coke (new process)	0·09	0·26	82·07	17·12	0·46	1·960	.....	Coke lustrous, firm, not much swollen.
657	Average from 6-foot face, Gunnedah Colliery.	Coal	2·65	37·75	52·35	7·25	0·583	1·338	12·27	
964	Average from 6-foot face, Centenary Colliery, Curlewis.	"	1·98	34·13	53·09	10·80	0·439	1·368	12·6	Coke well swollen, fairly firm, and lustrous.
1075	Cullen Bullen	Boghead	0·11	73·88	12·48	13·53	1·000	1·125	.....	Coke dull, fairly firm.
1271	Murrumbidgee	"	0·12	72·65	17·57	9·66	0·906	1·120	.....
1406	Erith Colliery, Bundanoon ..	Coal	1·17	27·92	50·79	20·12	.....	.....	.....	Coke well swollen, fairly firm, and lustrous.
1432	Thirteen miles from Narrabri ..	"	0·55	50·76	25·04	23·65	.....	.....	.....	Coke lustrous, fairly well swollen.
1968	Ten miles from Railway, Narrabri.	"	3·63	47·20	43·49	5·68	0·631	1·263	13·4	Coke lustrous, fairly well swollen.
3408	Near Mudgree	Boghead	0·52	62·93	9·0	27·55	0·342	1·249	.....	No true coke.
3524	Mount Victoria	"	0·92	57·83	17·45	23·80	.....	.....	.....
3685	Carlo's Gap, Capertee (end of tunnel). Main seam.	Coal	3·95	25·14	48·85	22·06	.....	.....	.....	Coke well swollen, firm, and lustrous.
3686	Carlo's Gap, Capertee (upper tunnel).	"	3·83	38·46	49·30	10·41	0·57	1·342	11·8	
3687	Carlo's Gap, Capertee	"	2·35	31·23	37·95	28·47	.....	.....	.....
3880	Lue (outcrop)	Boghead	0·40	64·10	7·80	27·70	0·453	1·236	.....	.....
3881	" (12-ft. seam)	"	0·40	71·95	8·50	19·15	0·260	1·169	.....

772—Substance found in the Grotto Cave, Jenolan :—

Water	16·82
Lime (CaO)	22·66
Magnesia (MgO)	0·32
Alumina (Al ₂ O ₃)	0·64
Ferric oxide (Fe ₂ O ₃)	trace.
Potash (K ₂ O)	0·11
Silica (SiO ₂)	37·82
Phosphoric anhydride (P ₂ O ₅)	15·71
Sulphuric anhydride (SO ₃)	5·39
Carbonic anhydride (CO ₂)	0·24
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	99·71

A minute trace of Chlorine; no fluorine.

810—Clay from Riverstone :—

Moisture at 100° C.	2·20
Combined water	7·50
Silica (SiO ₂)	64·20
Alumina (Al ₂ O ₃)	20·18
Ferric oxide (Fe ₂ O ₃)	1·84
Ferrous oxide (FeO)	1·86
Manganous oxide (MnO)	trace.
Lime (CaO)	trace.
Magnesia (MgO)	0·86
Potash (K ₂ O)	1·79
Soda (Na ₂ O)	0·02
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	100·45

1348—Olivine from an olivine basalt, 8 miles from Walcha, towards Swamp Oak :—

Moisture at 100° C.	0·20
Combined water	0·44
Silica (SiO ₂)	45·60
Ferric oxide (Fe ₂ O ₃)	3·18
Ferrous oxide (FeO)	6·49
Nickel and manganese oxides	traces.
Alumina (Al ₂ O ₃)	5·79
Lime (CaO)	3·40
Magnesia (MgO)	34·22
Potash (K ₂ O)	0·42
Soda (Na ₂ O)	0·28
Phosphoric anhydride (P ₂ O ₅)	trace.
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	100·02

A minute trace of a rare element, probably vanadium.

1523—White saccharoid substance (associated with galena) from Gundagai (?) :—

Water	1·50
Silica (SiO ₂)	61·39
Ferric oxide (Fe ₂ O ₃)	0·39
Manganous oxide (MnO)	trace.
Barium sulphate (BaSO ₄)	26·50
Strontium sulphate (SrSO ₄)	9·84
Magnesia (MgO)	0·14
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	99·76

The interesting feature of this analysis is the presence of strontium sulphate.

2132—Epidote from Braidwood :—

Water	0·70
Silica (SiO ₂)	40·70
Alumina (Al ₂ O ₃)	24·13
Ferric oxide (Fe ₂ O ₃)	12·07
Manganous oxide (MnO)	trace.
Lime (CaO)	22·60
Magnesia (MgO)	0·30
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	100·50

3739—Alumina silicate, cyanite (?), from Cooma :—

Water	0·28
Silica (SiO ₂)	44·33
Alumina (Al ₂ O ₃)	53·44
Ferric oxide (Fe ₂ O ₃)	0·54
Manganous oxide (MnO)	trace.
Lime (CaO)	0·44
Magnesia (MgO)	0·03
Potash (K ₂ O)	1·28
Soda (Na ₂ O)	0·23
Phosphoric anhydride (P ₂ O ₅)	0·02
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	100·59

2738—Saline material from near Broken Hill :—

Water	19·20
Lime (CaO)	31·50
Magnesia (MgO)	1·06
Strontia (SrO)	trace.
Silica (SiO ₂)	1·25
Alumina (Al ₂ O ₃)	0·11
Ferric oxide (Fe ₂ O ₃)	0·49
Sodium chloride (NaCl)	2·05
Sulphuric anhydride (SO ₃)	43·46
Carbonic anhydride (CO ₂)	1·15
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	100·27

3443—Obsidian bomb from Uralla:—		380—Light grey fluffy substance from Jenolan Caves:—			
Silica (SiO ₂)	64.68	Moisture and combined water	1. 2.48	2. 2.88	} Soluble in acid.
Ferric oxide (Fe ₂ O ₃)	6.57	Carbonate of lime	72.57	76.03	
Ferrous oxide (FeO)	1.01	Carbonate of magnesia	5.28	6.12	
Manganous oxide (MnO)	0.20	Alumina and ferric oxide	0.58	1.46	
Alumina (Al ₂ O ₃)	16.80	Phosphoric anhydride	trace.	0.28	
Lime (CaO)	3.88	Silica	17.26	13.22	
Magnesia (MgO)	2.50	Magnesia	0.07	...	
Potash (K ₂ O)	4.01	Organic matter	0.14	0.32	
Soda (Na ₂ O)	trace.	Alumina	1.36	...	
	99.65		99.74	100.31	
3822—Specimen of Mount Dromedary ore consisting of iron and copper pyrites, bismuthine, chalybite, &c.:—		771—Substance found in the Grotto Cave, Jenolan:—			
Moisture at 100° C	0.32	Water	22.59		
Metallic iron	29.70	Lime (CaO)	31.52		
Ferrous oxide (FeO)	11.75	Alumina (Al ₂ O ₃)	0.10		
Manganous oxide (MnO)	trace.	Magnesia (MgO)	0.09		
Bismuth	1.66	Silica (SiO ₂)	2.78	(fine sand.)	
Copper	2.13	Phosphoric anhydride (P ₂ O ₅)	14.50		
Lead	0.17	Sulphuric anhydride (SO ₃)	28.67		
Lime (CaO)	0.50	Carbonic anhydride (CO ₂)	0.10		
Magnesia (MgO)	trace.		100.35		
Gangue (quartz)	10.15				
Sulphur	34.47				
Sulphuric anhydride (SO ₃)	1.16				
Carbonic anhydride (CO ₂)	7.63				
Phosphoric anhydride (P ₂ O ₅)	trace.				
	99.64				
Gold, 2 oz. 15 dwt. 12 grs. per ton.					
Silver, 10 oz. 5 dwt. 19 grs. per ton.					
1261—Spring water from Werong:—					
	gr. per gal.	From Goulburn District:—	2262	2263	
Silica and silicates	3.444	White clay		Disintegrating granite.	
Bicarbonate of soda	49.106	Moisture at 100° C	0.82	0.42	
Bicarbonate of potash	3.690	Combined water	3.30	1.64	
Bicarbonate of lime	40.256	Silica (SiO ₂)	71.90	73.40	
Bicarbonate of magnesia	34.437	Alumina (Al ₂ O ₃)	16.15	14.60	
Bicarbonate of strontia	trace.	Ferric oxide (Fe ₂ O ₃)	1.45	1.10	
Sulphate of potash	.585	Manganous oxide (MnO)	trace.	trace.	
Sodium chloride	.659	Lime (CaO)	trace.	trace.	
Ferric oxide	trace.	Magnesia (MgO)	0.50	1.40	
		Potash (K ₂ O)	4.77	4.43	
		Soda (Na ₂ O)	0.57	2.74	
		Phosphoric acid (P ₂ O ₅)	trace.	trace.	
Total solid matter	132.177		99.46	99.73	

A trace of chlorine; no fluorine.

APPENDIX 26.

The Mining and Geological Museum.

The Government Geologist,—

Sir,

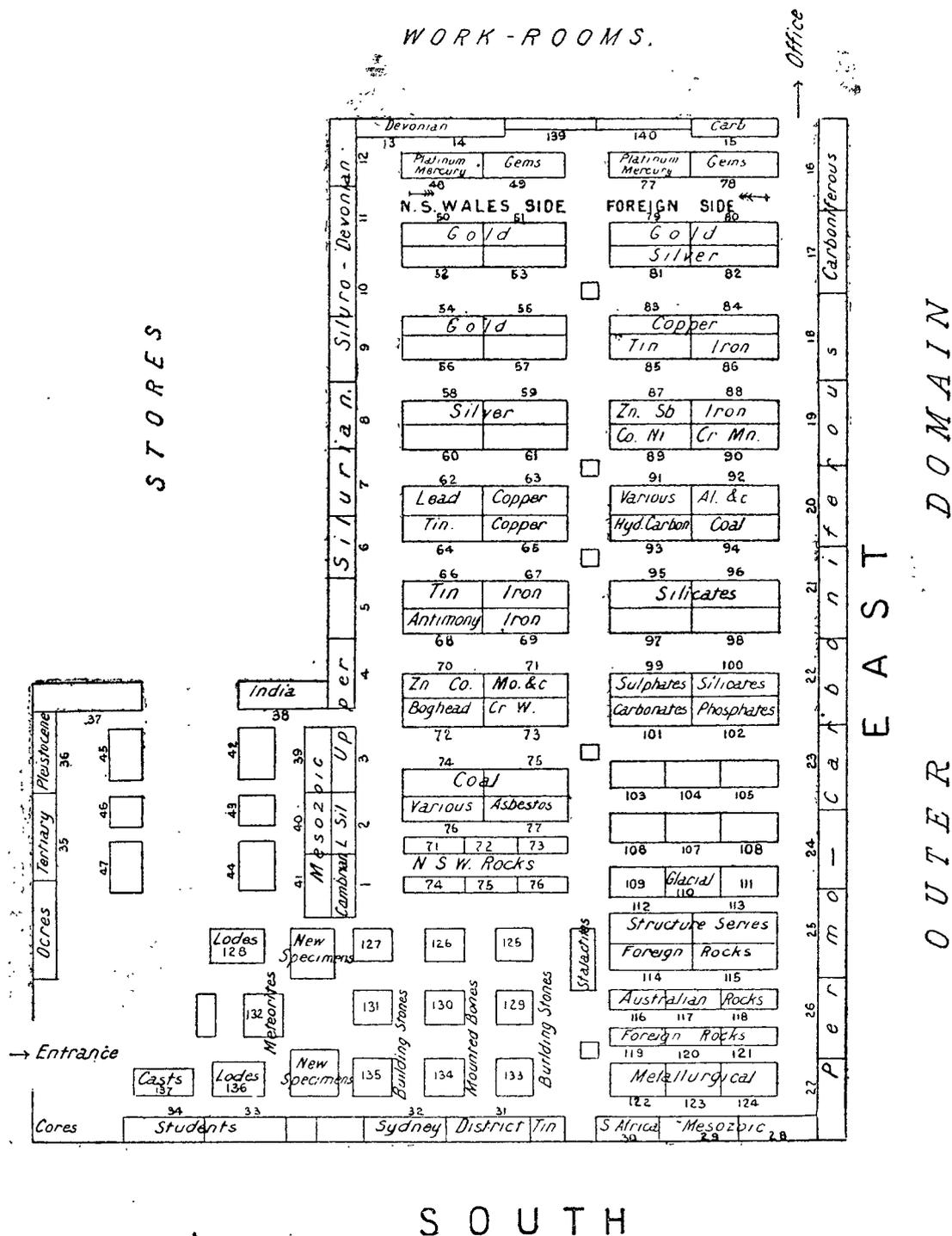
The Mining Museum, 31 December, 1897.

I have the honor to make a special report on the Museum; the practical completion of the work of registering and arranging the mineralogical and rock collections, on which I have been engaged for the last five years, rendering the opportunity a favourable one.

The Mining and Geological Museum has been practically co-existent with the Department of Mines. It resembles in its functions such institutions as the Museum of Practical Geology, London; the Museum of the Mining Bureau of California, San Francisco; the Geological Museum, Calcutta; the Geological Museum, Ottawa. Museums are attached to most Geological Surveys, and the Johannesburg Chamber of Mines and the Transvaal Republic are now actively engaged in establishing mining collections. The Museum at first occupied premises in Bridge-street, and was opened to the public on March 6, 1876. In 1881 the collections were removed to Exhibition Buildings in the Inner Domain, and were lost in the fire that destroyed the Garden Palace in September, 1882. Some 50,000 specimens, including much of the Rev. W. B. Clarke's invaluable collections and MSS., were lost. A small temporary iron structure having been erected at the back of the Geological Survey Offices, at 233, Macquarie-street, the nucleus of a new collection was got together and opened in 1886. In 1893 an opportunity of acquiring larger space was afforded by the removal of the Technological Museum to Harris-street. The ancient Exhibition Building in the Domain, at the back of the Sydney Hospital, formerly occupied by the technological collections, was acquired, and the collections and workrooms of the survey were removed there. Since then the whole of the collections have been overhauled, reregistered, rearranged, and relabelled. About 15,000 mineral and rock specimens have been registered, the great majority of these being New South Wales ores. The very fine collection of fossils, exemplifying the stratigraphy of New South Wales, has been tableted and arranged stratigraphically in cases round the walls in ascending geological order by the palæontologist, Mr. W. S. Dun. Of the central floor space, one-half is occupied by colonial ores and substances of economic value, and the other half by the rock-forming minerals and a number of foreign ores. In every respect the strictly scientific aspect has been subordinated to that which is commercial and practical, and no attempt is made to make a general collection of minerals.

The object of the Museum is to illustrate the geology, and more particularly the mining geology, of New South Wales; this being supplemented, so far as space will permit, by carefully chosen specimens from foreign mining districts. The guiding principle in the arrangement of the mining exhibits, which constitute by far the most prominent section, is to illustrate the occurrence of the mineral deposits by representative

representative specimens of ore, country rock, associated minerals, &c. All the ores of a given metal are placed near one another, and arranged geographically. Thus, a visitor consulting the foreign copper series will find each important copper-mining centre in the world illustrated in the manner just referred to, the ores of each district being placed together, irrespective of their nature. I am not aware that this plan has been carried out elsewhere. Even in its present condition, incomplete as it is from the existence of numerous gaps in the series and the absence of descriptive headings, this plan has proved a complete success. The preparation of a descriptive handbook has already been commenced.



While it is always the case that a specimen loses much of its value if incompletely localised, it is peculiarly so in a Museum such as this. Very many of the specimens—and this is especially the case with a large part of the rock collection, small as it is—are of little or no value from the absence of carefully stated localities.

The foundation having been laid, it now remains to consolidate and build up upon it. The difficulty lies in the acquisition of suitable specimens. It was at first a great disappointment to me to receive but little assistance from the numerous officers of the Department, who have personally to do with

with the mines. On considering, however, that the modern idea of what the true functions of a museum are is of comparatively recent origin, and that the duties of a curator as now understood require preliminary training and much careful thought like any other profession, I can see that it is unreasonable to expect another person to realise what is required. It is almost impossible to make it clear that one does not want specimens because they are curious or exceptionally rich, but because they have a definite educational value. You may ask for a piece of country rock or an average specimen of ore, but you cannot make it plain that you really want such useless stuff. It is very difficult to get representative specimens of ore from the deeper levels of a mine; of those now in the Museum, by far the larger part are surface samples only. I am confident that if a satisfactory method of acquiring the necessary specimens could be consistently followed, a collection would in time be built up that would be of the very greatest educational value to mining men, and would furnish a mass of accumulated evidence that might be expected to throw much light on the origin of ore deposits. It is my desire to study the country rocks of as many well-defined mining centres as possible, and to utilise the results in successive editions of a hand-book.

Another object at present in view is the adequate illustration of the geology of the Sydney District. A check was met with at the outset by finding that, with one or two exceptions, there were no specimens whatever available. For the purposes of exhibition a few have now been secured by the kind aid of one or two of my colleagues who have given up some of their leave of absence in procuring them. I am very hopeful of obtaining your approval to a scheme whereby the Sydney District may be systematically worked by the assistants and myself. Two or three show-cases are already reserved for the display of minerals, rocks, and fossils found in the Sydney District. By a series of day visits the various quarries, &c., would be photographed and examined by us. The dyke and other rocks would be studied petrographically, and the results published in the Geological Survey Records. Important material would thus be accumulated towards the elucidation of the geology of this part of the Colony.

The mention of photography leads to my final point. I should very much like to systematically collect photographs of geological or mining interest. These would be kept indexed for convenient reference, and enlargements of selected negatives could be prepared for framing as wall diagrams. Mine managers and others could be solicited to present to the Museum copies of any photographs they might have taken of their mines, and persons having negatives of geological phenomena would no doubt lend them for the purpose of taking prints.

I have, &c.,
 GEORGE W. CARD,
 Curator.

APPENDIX 27.

DONATIONS to the Mining and Geological Museum.

Donor.	Donation.
Allworth, F. C.	Crystals of tin in matrix.
Baker Bros. and Wade.....	A quantity of rich silver ore, native silver, pyrrargyrite, &c.
Bartlett, J. V.	Argentiferous quartz with sulphides of iron, lead, &c.
Bensusan, A. J.	Country rock (indurated slate), rich auriferous pyritous ore.
Bensusan, S. L.	Pyrrargyrite in lodestuff, argentite on quartz, compacted guano, and mica.
Blakemore, J. H.	Rock containing native copper.
Brice, W. S.	Quantity of basalt.
Brown, T. (M.P.)	Quartz showing free gold.
Californian State Museum	Collection of mineral and rocks, &c.
Calman, J.	Auriferous ores.
Card, G. W.	Soft slickensided coal, coal, pyrromalite with magnetite, various country rocks, and auriferous specimens.
Chandler, —	A quantity of tin ore.
Clark, D.	Monazite sand.
Coal Cliff Coal Company	Coal.
Collins, H. F.	Section across a reef showing a "turn," various country rocks, auriferous specimens, sulphide ore, and stibnite in quartz.
Collins, J.	Quartz showing free gold.
Conway, —	Quartz containing molybdate of lead.
Cotton, F. (M.P.)	Copper and lead ores.
Cruikshank, G.	Crystals of gypsum.
Curlewis Coal Co. (the Manager) ...	Naturally coked coal.
Davies, J. E.	Calcite.
Dixson, Inspector	Coal from various collieries.
Dobson, J. E.	Copper ores, alluvial gold, silver ores (native silver, &c.), barytes with galena, auriferous pyrites in calcite, auriferous blende and pyrites in quartz, and various rock specimens, &c.
Duncan, A.	Quartz showing free gold.
Finselbeck, Dr.	Contorted slate—the contortions being indicated by iron pyrites.
Fitton, J.	Alluvial gold, and a specimen of the wash from which the gold is obtained.
Frecheville, W.	Schist coloured by vanadium and country rocks from Kalgoorlie.
Garvan and Coward	Quartz showing free gold.
Hammond, H. R.	Platinum concentrated.
Hall, E.	Native copper in fluor spar.
Harper, L. F.	Rock specimens, &c.
Hasenkan and Party.....	Quartz showing coarse free gold.
Hibbert, —	A quantity of topaz and crystals of tin and tourmaline.
Hedges, J.	Lead ore—galena in fluor spar and calcite—from Derbyshire.
Huntley, T. S.	Pyromorphite and silver ore.
Huntley and Masey	A quantity of crystallised pyromorphite.
Jaubard, J.	A fire-brick made at Bulli of tripolite and fireclay.

Donor.	Donation.
Jermyn, R.	Asbestos.
Josephson, —	Tripolite and aragonite lining the interior of hollow geodes.
Lamb, S.	Serpentine with asbestos and soapstone.
Lane, Dr. W. H. H.	Tripoli and articles manufactured from same.
Litchfield, G. F.	A collection of rocks, &c.
Mackenzie, Dr.	Conichalcite (argentiferous) and ferberite.
Madson, H. F.	Limestone showing concretionary structure.
Margoschis, —	Auriferous stone.
McGlew, C. S.	Wolfram.
Meldrum, J.	Stream tin ore, alluvial gold, kyanite, bone breccia, and various rock specimens.
Metropolitan Coal Company	Coal.
Miller, R.	Slate, &c., showing paint gold and chloro-bromide of silver.
Mitchell, J.	Concretionary ironstone with calcite.
Mooney, Jas.	Quartz showing free gold, &c.
Mt. Pleasant Coal Company	Coal.
Mt. Kembla Coal Company	Coal.
Oakley, W. A.	Non plastic white clay and felspathic granite fireclays.
O'Donnell, M. J. (per E. C. Whittell)	Fine specimens of quartz crystals, &c.
Overflow S.M. Co. (the Director)	A collection of argentiferous and cupriferous ores.
Pender Miss	Bismuth ore.
Pith, J. (per Warden's Clerk, Rockley)	A quantity of epidote with felspar.
Power, W.	Copper ore.
Power, F. D.	Numerous rock specimens, auriferous slate, pyromorphite, Lower Silurian graptolite slate, tripolite, common opal, tin-bearing wash-dirt, calcareous material found in cylindrical masses in the Cooma tripolite, calaverite in calcite from Kalgoorlie.
Pryce, J.	Stalactitic quartz.
Public Works Department	Ninety-six pieces of polished marble.
Ramsay, S. F.	Tourmaline, a quantity of andalusite, magnetite in quartz, zircon-sapphire—sand, talc.
Rantzon, L. V.	Auriferous and argentiferous specimens.
Reid, M.	Crystallised barytes, and quartz showing gold freely.
Robinson, Rev. J.	Oilvine, and oilvine basalt.
Roman, H.	Specimen illustrating weathering, volcanic bombs.
Sellers, H. E. O.	Slickensided shale.
South Clifton Coal and Coke Co.	Coal and coke.
Southern Coal Company	Coal.
Stokes, H. G.	A collection of silver ores from the Silver Spur mine.
Strange — (per E. C. Whittell)	A quantity of topaz and sapphire.
Stribly, T.	Auriferous quartz.
Thomas — (per E. C. Whittell)	A quantity of tin ore.
Throsby —	Tin ore, &c.
Tomingley, G. M. (the Manager)	Vanadium-bearing clay.
Van Weenan	Specimen illustrating weathering.
Warden's Clerk, Yalgogrin	Auriferous ore.
Warden, Braidwood	Pyromorphite.
Warden, Junee	Auriferous ore.
Warden, Queanbeyan	Free gold in ferruginous material.
Warden, Wolumba	A collection of auriferous sulphides from deep levels in the various Wyalong mines.
Warden, Wyalong	Pyromorphite.
Warden, Yass	Volcanic bombs.
Watt, J. A.	Deposit in pipe.
Welch, H. P.	Rock specimens and gypsum.
Wiburd, J. C.	Arsenical pyrites.
Wooller, Chas.	

APPENDIX 28.

Annual Report of the Assistant Palæontologist and Librarian for the Year 1897.

Sir, Geological Survey Branch, Department of Mines and Agriculture, 13 January, 1898.

I have the honor to submit to you the following summary of the Palæontological work and work connected with the Library performed by me during the past year:—

Records and Memoirs.—Vol. V, Parts 2 and 3, of the *Records* have been published, and Part 4 is now going through the press and will be issued during February. A translation of the late Professor De Koninck's "Recherches sur les Fossiles Palæozoïques de la Nouvelle Galles du Sud" is now going through the press. This will form Memoir No. 7 of the Palæontological Series, and should be issued during the first half of this year. No Memoir was published during 1897.

Miscellaneous Determinations.—These determinations were made chiefly in connection with the field work performed by officers of the staff. The principal ones are:—

1. Post-Tertiary Estuarine Fossils from the Northern Territory:—*Cerithium Kieneri*, Homb. and Jacq.; *Potamides fuscum*, Schum; *Kuphus*, sp. ind.
2. Tertiary Leaves from the Elsmore Tin-mining Company's Mine, 220 feet level, collected by Mr. E. C. Whittell, comprising:—*Malpighiastrum Babbagei*, Ett.; *Cinnamomum Leichhardtii*, Ett.; *Apocynophyllum Kingi*, Ett.; and *Myrsine Stokesii*, Ett. (?)
3. Lower Silurian Graptolites from county Wellesley, collected by J. E. Carne, *vide Records*, 1897, V, Pt. 3, pp. 124-127.
4. Carboniferous Fossils, collected by yourself in the Somerton District:—
 - (a) From Oolitic Limestone, Por. 100, Parish Tulcumbah.—*Zaphrentis*, *Spirifera*, *Dielasma hastata*, Sby., *Edmondia*, *Loxonema*, *Pleurotomaria*, *Entolium*, *Conularia*.
 - (b) Por. 2, parish Rangira, county Nandewar.—These are ill-preserved, and comprise Crinoid stem-ossicles, *Rhynchonella* (?) *Cyrtoceras* (?)
 - (c) From 1 mile east of J. Swain's house.—*Productus*, *Otenodonta*, *Bellerophon*, *Murchisonia*, *Worthenia*, *Euomphalus*, *Hyolithes* (?)
 - (d)

- (d) Por. 23, Parish Wilura, County Nandewar.—*Spirifera*, *Michelinia*.
- (e) "Whales' Egg" Limestone, 5 miles S.E. of Somerton.—*Zaphrentis sumphiensis*, Eth. fil.; *Zaphrentis*, sp.; *Dielasma hastata*, J. de C. Sby; *Productus semireticulatus*, Martin; *P. giganteus*, Martin (?); *P. cf. muricatus*, Phill.; *Orthis australis*, McCoy; *O. resupinata*, Martin, *Spirifera cf. bisulcata*, Sby., *S. striata*, Martin, *S. cf. humerosa*, Phill.
5. Upper Silurian fossils from near Young, collected by Mr. H. F. Marsden:—*Cucullæa*, *Orthonota*, *Spirifera*.
6. Upper Silurian fossils from Quedong, collected by Mr. J. E. Carne:—*Favosites gothlandica*, Lam. (small-pored variety); *Heliolites cf. interstincta*, Linn.; *Pentamerus Knightii*, Sby.; *Leptæna rhomboidalis*, Wilck.; *Atrypa reticularis*, Linn.; *Rhynchonella, cf. borealis*, Schl., var.; *Rhynchonella*, sp.; *Orthis*; *Paracyclas*; *Pleurotomaria*.
7. Fossils collected by Mr. J. H. Watt from—
- (a). Five and a half miles north-west of Kerr's Creek Platform:—*Favosites gothlandica*, Lam.; crinoid stems.
- (b) Crown Station, Capertee Valley, 15 miles from Capertee:—*Spirifera disjuncta*, Sby.
- (c) One and a half miles from Mudgee, northern side of Lawson's Creek (in chest):—*Favosites*, Stromatoporoid (*Actinostroma*?), and numerous crinoid stem and arm ossicles and fragments of organisms replaced by silica.
- (d) Underlying basalt, half a mile north of Mount David, at Baker's claim, Parish of Mount Lawson, County of Georgiana:—Indeterminate fragments of Brachiopods and portion of the pygidium of *Phacops*?
- (e) Buckeroo, near Mudgee:—*Spirifera cf. multiplicatus*, Dekon.; *Meristella*?
- (f) Tertiary leaves from Portion 142, Parish of Tarlo, County of Argyle, very like *Quercus Wilkinsoni*, Ett., from the eocene of Vegetable Creek.
8. From the "New Cave," Jenolan Caves, collected by Mr. F. J. Wilson:—*Favosites gothlandica*, Lam.; *Pentamerus Knightii*, Sby.
9. Devonian fossils from Bell Bird Creek, near Eden:—*Rhynchonella pleurodon*, Phill.; *R. cuboides*? *Atrypa*.—*Vide Records*, V., pt. 4, p.
10. From the Yarrangobilly Caves, collected by Mr. H. Bradley, keeper:—*Pentamerus Knightii*, Sby.; *Pleurotomaria*; *Orthoceras*.

During the year large collections of fossils from the Yass and Murrumbidgee Districts were made by Mr. C. Cullen. These collections contain much new material. They have been registered, and it is hoped that the examination of, at any rate, the Mollusca will be completed by the end of the year. Mr. Cullen also made a small collection of fossil plants from the Narrabeen beds of Turrimetta Head.

For some years past Mr. B. Dunstan, F.G.S., formerly Lecturer in Geology to the Technical College, Sydney, and now of the Geological Survey of Queensland, has been getting together a large collection of fossil fish from the Wianamatta Shales of St. Peters. Under certain conditions this collection has been presented to our Museum, and the fish are now in the hands of Mr. A. Smith Woodward, Department of Geology, British Museum (Natural History), who is describing them. It is hoped that his descriptions will be available for publication during this year.

Through the generosity of Mr. F. Danvers Power, F.G.S., our Museum has been enriched by a collection of Lower Silurian graptolites from Myall Reefs, near Tomingley. This is, I believe, the first occasion on which graptolites have been collected in this part of the Colony, and their discovery is of the highest importance from a stratigraphical point of view.

Museum.—During the year considerable time has been given to Museum work—registration and sorting of specimens, label writing, and tableting. The space available for the display of the fossil collection is inadequate. Of Australian specimens, the Carboniferous and Permo-Carboniferous Polyzoa, a considerable amount of Silurian and Siluro-Devonian material, the Marine Tertiary Mollusca and the greater part of the Post-Tertiary Marsupial bones are not exhibited. As well as this we have large and good collections of fossils from other parts of the World, which, with the exception of a few odd specimens, are kept packed away. Five small named collections were prepared for distribution.

The following papers and reports were prepared or published during the year:—

1. Annual Report for the year 1896.
2. Additions to the Permo-Carboniferous Flora of New South Wales. *Records*, 1897, V, pt. 2, pp. 64, 65, pt. 9.
3. On the Occurrence of Devonian Plant-bearing beds on the Genoa River, County of Auckland. *Records*, 1897, V, pt. 3, pp. 117–121, pls. 10, 11.
4. The Occurrence of Lower Silurian Graptolites in New South Wales. *Records*, 1897, V, pt. 3, pp. 124–128.
5. Note on the Occurrence of Sponge Remains in the Lower Silurian of New South Wales. *Procs. Linn. Soc. N. S. Wales*, 1897, pp. 436, 437.
6. With R. Etheridge, *Junnr.* The Australian Geological Record for the year 1895, with addenda for the years 1891–1894. *Records*, 1897, V, pt. 2, pp. 87–111.
7. With R. Etheridge, *Junnr.* The Australian Geological Record for the year 1896. *Records*, 1896, V, pt. 4, pp. 183–203. (In the Press.)
8. With G. W. Card. Diatomaceous Earth Deposits of New South Wales. *Records*, 1897, V, pt. 3, pp. 128–148, pls. 12–15.
9. Notes on the Fauna of the Devonian Boulders occurring at the White Cliffs Opal-fields. *Records*, 1898, V, pt. 4, pp. 153–175, pls. 17–18. (In the Press.)
10. Stratigraphical and Palæontological Notes, No. 1. *Records*, V, pt. 4, pp. 180–184. (In the Press.)

I have also prepared a full "Systematic Catalogue of the Types and Figured Specimens in the Collections of the Geological Survey," which will shortly be published.

Library.—During the year 1,682 publications have been registered and placed in the Departmental Library, consisting of Societies' Transactions, Reports of State Departments, serials and separate works and pamphlets. This total is made up of 1,436 volumes or parts of volumes and pamphlets that have been presented or sent in exchange, and 246 that have been purchased.

The Library is now in correspondence with 209 Institutions and State Departments, from which exchanges are regularly received, and there are also numerous personal exchanges.

The principal additions to the exchange list are:—

American Philosophical Society, Philadelphia.
 Institute of Mining and Metallurgy, London.
 K. K. Geologischen Reichsanstalt, Vienna.
 Gesellschaft für Natur und Heilkunde, Giessen.
 Kansas Academy of Science.
 Chicago Academy of Science.
 Chemnitz—Naturwissen. Gesellschaft.
 Frakfort-on-Maine—Senckenbergische Gesellschaft Naturforschender.
 Vienna—K. Akademie de Wissenschaften.
 Havre—Société Géologique Normandie.
 Mexico—Comité Geologique.
 University of Wisconsin.
 Annuaire Geologique de Russie.
 State Geologist, South African Republic.
 Geological Survey of Western Australia.
 Rome—Accademia Lincei.

The following publications have been distributed to correspondents:—

- (1) Records, Geological Survey, V, Part 2.
- (2) " " " " " 3.
- (3) Annual Report for 1896, to Institutions.
- (4) Special Editions Australian Mining Standard.
- (5) Numerous miscellaneous lots.

During the second half of the year the registration and acknowledgment of donations was performed by Mr. L. F. Harper, and this assistance was a great help to me.

The registration, catalogue, &c., has been kept up to date.

I have, &c.,
 W. S. DUN,
 Assistant Palæontologist.

APPENDIX 29.

CAVES.

PROGRESS and other Reports on the Limestone Caves for the year 1897, by O. Trickett, C.S., M.S., Vict., L.S., N.S.W.

During the year the following improvements have been effected.

Jenolan Caves.—Improvements of the northern branches of the Right Imperial Cave. Such branches have been named the "Jubilee Cave."

Construction of a new entrance to the Lucas Cave from the Grand Archway. Visitors will be enabled to reach the Lucas Cave without the necessity of climbing over the ridge in which this cave is situated.

In connection with these improvements I desire to refer to the care Mr. F. J. Wilson, Caretaker, has taken to give the concrete and other steps a uniform grade, and generally to second my efforts to obtain the exact cost of material or labour in the different items of improvement work.

The new Caves House designed by the Government Architect for the convenience of visitors is nearing completion.

Yarrangobilly Caves.—The Thermal Spring has been improved for the use of visitors by the excavation and timbering of a bathing-place (*see plan*). The waters of this spring are said to have curative properties.

Credit is due to the caretaker, H. Bradley, for the manner in which this work has been carried out.

He has also erected a substantial washhouse and forge-shed, partly with material supplied by the Government.

Bungonia Caves.—A cottage for the use of the caretaker has been erected, and the access to the ladders in the Main Cave has been improved.

Bendithera Caves.—The old wooden ladders have been replaced by new ones, which are further improved by the erection of standards with wire rope where required.

Wellington Caves.—The "Altar" in the Main Cave has been protected by the erection of standards and wire netting.

A new chimney at the visitors' shed is nearly completed. The caretaker is putting up this chimney with material supplied by the Department.

Abercrombie Caves.—The tracks have been improved, and one of the iron ladders re-erected.

Wombeyan Caves.—The entrances to two new caves up the Mares Forest Creek have been made accessible by the erection of wooden ladders, while one of these caves has been improved by the fixing of a door and some wire rope.

The following improvements have been authorised to be effected as opportunity offers:—

Jenolan Caves.—Placing of garden seats in suitable positions, improvement of track to bathing-place, construction of a new entrance to the Imperial Caves, improvement of the Gem of Jenolan Cave, improvement new cave, improvement engine-driver's cottage (painting), erection of cottage for caretaker.

Yarrangobilly Caves.—Erection of kitchen and chimneys.

Abercrombie Caves.—Erection of horse-paddock fence.

Wellington Caves.—Painting caretaker's cottage.

Wombeyan Caves.—Improvement of the Wollondilly Cave.

Bungonia Caves.—Improvement of the Main Cave.

Discovery

Discovery of New Caves.

On the 10th November, 1897, the Caretaker (F. J. Wilson) reported that he discovered a new cave equal to any of the other caves at Jenolan. (Report of inspection attached.)

Mr. Jeremiah Wilson, Explorer at Jenolan Caves, reports that he has discovered several new branches of the caves, and a new cave 1 mile north of the Accommodation House. Some of the chambers he reports to be of considerable beauty.

He was employed to relieve the caretaker at the Abercrombie Caves during the months of July and August. While there he discovered what has been named "The Grove Cave." (See report attached.)

The caretaker of the Bungonia Caves has reported the discovery of new and good caves.

The caretaker of the Bendithera Caves reports the discovery of new caves. These are, probably, of little importance.

I visited the Tuglow Caves during the year. (Report attached.)

Number of Visitors for Year 1897.

Abercrombie Caves	...	...	...	...	904	visitors.
Bendithera Caves	...	...	...	...	53	"
Bungonia Caves	...	...	...	...	627	"
Jenolan Caves	...	...	...	...	2,247	" (who paid 6,135 visits).
Wellington Caves	...	...	...	...	1,129	"
Wombeyan Caves	...	...	...	...	335	" (who paid 515 visits).
Yarrangobilly Caves	...	...	...	...	474	" (who paid 1,028 visits).
Total	...	...	...	...	5,434	

Magnesium Ribbon used.

Ribbon issued to caretakers, 627 oz., cost £107 9s. 6d.; ribbon used by guides and caretakers, 544 oz.; amount collected for use of ribbon, £227 12s. 10d.

Survey of Caves.

I have realised that it would be a benefit to the caretakers at the various caves if they had a better idea of the direction of the underground channels and caverns as an aid to future exploration, and to enable the guides to answer questions which are frequently put by visitors.

I have commenced to define these channels, with the assistance of Mr. Harper, Field Assistant, by making a compass survey of part of the Jenolan Caves, as indicated on plans herewith.

I would have preferred to make a theodolite survey, to avoid errors of magnetic variation arising from the presence of the protecting ironwork and netting, but I should have required more time than I had at my disposal, and extra assistance.

Reports on Caves.

For the purpose of reference I have furnished general reports on each of the caves, which include such information as I thought might be of interest.

To illustrate these reports I made compass and pace surveys of the surface features and improvements at the different caves, which are shown on accompanying plans.

The following are extracts from the information collected:—

The Limestone Caves of New South Wales.

THE control of the caves was transferred from the Lands Department to the Mines Department in 1879 (M. 79/8,989). Between 1st January, 1883, and July, 1897, the sum of £23,131 had been expended on the care and improvement of the caves. Particulars of earlier expenditure are not readily available.

Probably as much more has been expended on the roads to the Jenolan, Yarrangobilly, and Wombeyan Caves.

The Jenolan and Yarrangobilly Caves have telegraphic communication.

There is a post office at Jenolan and a postal receiving office at Wombeyan.

The eastern portion of the Colony contains numerous deposits of limestone, many of which are unexplored. Wherever the limestone occurs in mountainous or rugged country it has been found to contain caverns, which, from their grandeur and the richness and delicacy of their ornamentation, have been termed the "Australian Fairy Land."

The causes which have led to the formation of the caves have been explained by the late C. S. Wilkinson, Geological Surveyor in Charge, in a paper published in the Railway Guide, 1886, and by Professor T. W. E. David in his report on the Wombeyan Caves, 22/6/85.

The limestone in which most of the caves are situated is of Upper Silurian or Lower Devonian age; but I am informed by Mr. W. S. Dun, Assistant Palæontologist, that the Yessabah Caves are probably in limestone of Permo-Carboniferous age, while the Isis River Caves may be in Carboniferous rocks.

The caves have been the subject of the following descriptions and reports:—

JENOLAN CAVES. (Originally known as the Fish River or Binda Caves. Name altered to Jenolan by *Gazette Notice*, 19th August, 1884.)

Sydney Morning Herald, 5th June, 1863.

J. E. Richter, *Scientific American*, 1884, No. 15.

Sydney Morning Herald, a series of articles published in 1886.

S. Cook, *The Jenolan Caves, an Excursion in Australian Wonderland*, 1889.

C. S. Wilkinson, *Railway Guide*, 1886.

W. S. Leigh, 11th June, 1888, *Annual Report of Department of Mines for 1888*, p. 202.

W. S. Leigh, 24th March, 1893, *Annual Report, Department of Mines and Agriculture for 1893*, p. 140.

W. S. Leigh, 6th March, 1894, *Annual Report, Department of Mines and Agriculture for 1894*, p. 156.

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W. E. Abbott, 6th May, 1896., G.S., 96/706.

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W. S. Leigh, 28th July, 1890, Annual Report, Department of Mines for 1890, p. 311.

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ROSEBROOK CAVES (near Cooma).

W. S. Leigh, 12th April, 1892, Annual Report, Department of Mines and Agriculture, 1892, p. 176.

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W. S. Leigh, 3rd November, 1894, Annual Report, Department of Mines and Agriculture for 1894, p. 157.

STUART TOWN CAVES.

W. S. Leigh, 30th July, 1896, Annual Report, Department of Mines and Agriculture, 1896, p. 152.

TUGLOW CAVES (10 miles south of Jenolan Caves).

O. Trickett, 29th October, 1897, Annual Report, Department of Mines and Agriculture for 1897.

WYANBENE CAVES (25 miles southerly from Braidwood).

W. S. Leigh, 21st January, 1889, M. 89/1,404, M. 97/21,925.

YESSABAH CAVES (near Kempsey).

C. S. Wilkinson, 19th October, 1897, M. 89/19,068.

Caves are also said to exist at Alum Creek, near Bredbo.

At 4 miles south-south-east of Cudgegong.

And at 6 or 7 miles from O'Connell, Bathurst District.

It may be added that the picturesque scenery of the Kanangra (Kowmung) Walls, near Jenolan, is the subject of a report by W. S. Leigh, 24th October, 1889, Annual Report, Department of Mines for 1889, p. 252.

APPENDIX 30.

The Grove Cave (Abercrombie Caves).

Sir,

25 September, 1897.

I have the honor to report on my visit to the caves at the Grove Creek, near Trunkey, discovered by Mr. Jeremiah Wilson, during the months of July and August last.

One of them, situate S.W. of the Arch, is of interest. Its mouth was found blocked up. It had apparently been used as a hiding-place—presumably by bushrangers—many years ago. Only one of the others is of any importance. It has been named the Grove Cave. It is entered from the face of a limestone bluff, at about 50 feet above the Grove Creek, and about 1½ chain S.E. of the Abercrombie Arch. Its position is indicated on accompanying maps. Two photographs of this cave have been kindly supplied by Mr. T. W. Seaver, of the Water Conservation Branch of the Public Works Department.

The Grove Cave is mostly dry, and appears to have been so for a very long time, consequently for the greater part of its course, it has comparatively little beauty; but a small portion of it, 7 feet x 10 feet, contains one very fine column, something after the style of the Alabaster Column at Jenolan, a smaller column, and a few shawls and stalactites. On the north side of this chamber there is no drip, and the formations have lost most of their beauty; but on the southern side the shawls and stalactites are in course of formation.

This would not be considered a particularly beautiful chamber at, say, Jenolan, but it is distinct from anything else at the Grove Creek, and is a valuable addition to the attractions furnished by the beautiful Abercrombie Arch.

I have, &c.,

O. TRICKETT, L.S.

The Government Geologist.

APPENDIX 31.

Tuglow Caves, Tuglow River.

Sir,

29 October, 1897.

I have the honor to report on my visit to the caves at the Tuglow River, a tributary of the Kowmung River, 10 miles south of the Jenolan Caves.

The discovery of caves at Tuglow by Messrs. H. and C. Wilcox, selectors in the vicinity, was reported to the Department in 1884. On the 13th February, 1897, the Rev. J. W. Harrison, of Oberon, requested that some steps should be taken to preserve them.

From the Jenolan Caves southerly, as far as the Wombeyan Caves, a distance of 35 miles, there are numerous outcrops of limestone. On the accompanying plan I have indicated the position of some of these outcrops in the vicinity of the Tuglow River. They are all more or less honeycombed by caves.

The most important cave, as far as known, is the one more particularly referred to by Mr. Harrison.

It is situated in a limestone bluff overlooking the Tuglow River, at an altitude of 3,200 feet above sea level, N.E. of portion 18, parish of Banshea, county of Westmoreland.

There are two openings from the surface to this cave. One represents a perpendicular drop of, perhaps, 100 feet. The other, a few feet distant, reaches the same point by a descent which is easier, but requires the use of rope.

Still

Still descending, a massive "curtain," some 25 feet long, decorated with calcite crystals, is passed, and the main cavern is reached at 280 feet from the surface, probably representing a fall of 200 feet.

Part only of this cavern was examined. A channel in its floor is the waterway for a considerable body of water, which, if confined to the surface, would apparently run down the Horse Gully Creek, but now finds its way easterly, by a shorter route underground, to the Tuglow River.

Passing down the cavern one is faced by a massive terrace, similar to the formation known as "the diamond walls," at Jenolan. Further on (330 feet to 360 feet from surface), on the right-hand side of the cavern, is a grand collection of stalactites, "draperies," and "shawls." One of the latter is some 6 feet long by $2\frac{1}{2}$ feet wide at its base. It is unusually thin for such great width, which adds to its beauty.

A photograph was taken of this part of the chamber with a camera kindly lent to me by Mr. Rowe, of Jenolan.

Beyond this chamber to the left (370 feet) the water passes over a cascade formed of "basins," similar to those in the Wombeyan Caves, described by Professor T. W. E. David (Annual Report, Department of Mines and Agriculture for 1896, page 151). The sound of the falling water is heard a considerable distance away.

Turning to the right and rising about 20 feet over a heavy deposit of bat guano, a collection of columns of a reddish tinge is reached. They resemble formations which have been likened to organ-pipes in other caves. From thence, running north-easterly, is a passage from $2\frac{1}{2}$ feet to 5 feet high and 7 feet broad, which (500 feet from the surface) ultimately becomes too small to follow without excavation.

The floor of this chamber is ripple-marked in places. On its left-hand side (410 feet to 440 feet) are a series of grottoes, which contain a varied and beautiful collection of stalactites, from the miniature pencil forms, to snowy-white groups of larger size. One of these groups is fringed by a reddish drapery, which gives a pleasing effect to the white formations.

Exploration would doubtless disclose many other interesting chambers, which, added to the present attractions of the Tuglow Caves, may render them, in the future, as important as some of the better known caves.

Mr. Harper, Field Assistant, collected fossils from several of the limestone outcrops, which show the rock to be of the same age as the Jenolan limestone.

In concluding this report, I desire to thank Messrs. Brennan, J.P., Luther, and Bouchier, local residents, for the assistance given to me during my inspection of the caves.

I have, &c..

O. TRICKETT.

The Government Geologist.

APPENDIX 32.

New Cave, Jenolan Caves.

Sir,

Geological Branch, 6 December, 1897.

I have the honor to report on the new cave discovered by Mr. F. J. Wilson, caretaker at the Jenolan Caves, on the 10th November, 1897.

It is situated at the foot of a cliff 3 chains west of McKeown's Creek, 2 chains southerly from the Glass Cave, and 30 chains north of the Grand Archway.

The caretaker was induced to search hereabouts from the information I had supplied him with respect to the position of the "Lily of the Valley," fixed by my survey of the Imperial and Jubilee Caves.

At about 130 feet above McKeown's Creek, the entrance is found in a hole barely large enough to squeeze through. Thence scrambling along a passage westerly and south-westerly for about 150 feet, the cave is reached at a depth which is apparently some 50 feet above the dry bed of the creek.

There are two chambers. From the northern one the Caretaker obtained some fossil bones beautifully encrusted with crystals of calcite. He at once forwarded these to the Department, and they are now on view at the Museum, in the Domain.

This northern chamber is very attractive. It is some 20 ft. x 30 ft. x 30 ft. in size. I propose to describe the southern chamber only.

I have previously reported that the "Gem of Jenolan," a branch of the Jubilee Cave (not yet opened for the inspection of visitors), was superior to any other chamber then known at Jenolan.

The southern chamber of the cave now under notice, however, I consider to be unrivalled for the beauty and wealth of its ornamentation. It sparkles with calcite crystals, which give effect to the waterfall and drapery formations which grace its walls. On one hand are reddish-tinted coral-like bunches of crystals, on another forests of diminutive stalactites, with groups of larger ones, some reddish, others snowy white or semi-transparent. This chamber is about 20 ft. x 23 ft. x 30 ft. A grotto 15 ft. x 10 ft. x 5 ft. is seen on its south-western side. This is separated from the main chamber by numerous semi-transparent columns and a fringe of stalactites, which remind the spectator of Nellie's Grotto in the Imperial Cave. The beauty of these columns is enhanced by the remains of an older column which lie in ruins at their base. Through these columns is seen a fairy-like grotto, with a peculiarly beautiful reddish crystalline and rippled floor, the whole making a picture which must fascinate even those who are not ordinarily moved by the beauty of Nature's handiwork.

It will be difficult to give easy access to this cave, as the two chambers lie at the end of a fissure 40 ft. x 40 ft. x 2 ft., dipping at a steep angle. The bedding plane forming the roof is of smooth and hard rock, while the floor is also hard. The latter has, however, a sufficiently roughened surface to render descent comparatively safe and easy.

It seems a pity to close to those of the public, who are not inconvenienced by a scramble, such a magnificent cave.

At the same time it would severely tax the energies of the guides if this cave were included in their daily routine of work. I therefore think some means of limiting the number of visitors to it should be adopted, if it be deemed advisable to render the cave accessible for inspection.

I have, &c.

O. TRICKETT, L.S.

The

APPENDIX 33.

Mutilation of the Copper Mine Cave, Yarrangobilly.

Sir,

Geological Branch, 20 December, 1897.

I have the honor to report on the mutilation of the Copper Mine Cave, Yarrangobilly.

The necessity for protecting this cave forms the subject of letters from Trevor Jones, Esq., M.P., and J. S. Taylor, Esq.

The Copper Mine Cave is situated near the northern end of a large body of limestone, from $\frac{1}{2}$ to 1 mile wide, and 6 miles long. Near the southern end of this limestone are the caves rendered available for access to visitors. (*See plan.*)

The limestone is flanked on its western side by precipitous and picturesque cliffs, rising 300 to 400 feet above the Yarrangobilly River. It is honeycombed by caves, some at present forming the channels of permanent running streams, while others are at a higher level. For the greater part they are unexplored.

The waters which have formed the Copper Mine Cave enter the limestone in three places, near the "Yarrangobilly Hotel," 4 miles as the crow flies north of the caretaker's residence and accommodation cottages. The water descends rapidly after passing through these openings by channels which may be followed for some distance.

One mile south-westerly the waters have their exit. From inlets to outlet, therefore, there is a mile of main cavern, in addition to branches.

Following the underground stream up from its exit for 500 feet, wading through icy cold water on the way in places, and then rising about 30 feet, the remains of what has been a magnificently ornamented cave is reached, about 300 feet long as far as explored.

Axes, crowbars, chisels, and cartridges, have been used to demolish or remove the beautiful formations in this part of the cave.

Nothing appears to have been too large to destroy, for in one place the remains of a fine column over 6 inches in diameter, are lying on the floor. Fragments of semi-transparent "shawls" lie among the debris of broken stalactites, stalagmites and crystals of calcite. To secure the last-named, appears to have been the main object of the miscreants, who have destroyed as much as they could get access to, for the crystals have been carefully chiselled out. There can, however, have been no object other than destruction in breaking the "shawls," which come away in pieces, and have no beauty when removed.

The cave is still worth preserving, for the portion damaged probably represents a very small part of the attractive chambers which may be found in the future along the underground water way.

It is important that the destruction of any of the caves at Yarrangobilly should be prevented, for it is not unreasonable to suppose that the impressive scenery, the number and extent of the caves, and the cool climate of this locality, will render it in the future one of the most popular resorts of tourists in the Colony.

I have, &c.,

O. TRICKETT.

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[Seventeen Plans.]

JENOLAN CAVES

Parish of Jenolan. County of Westmoreland.

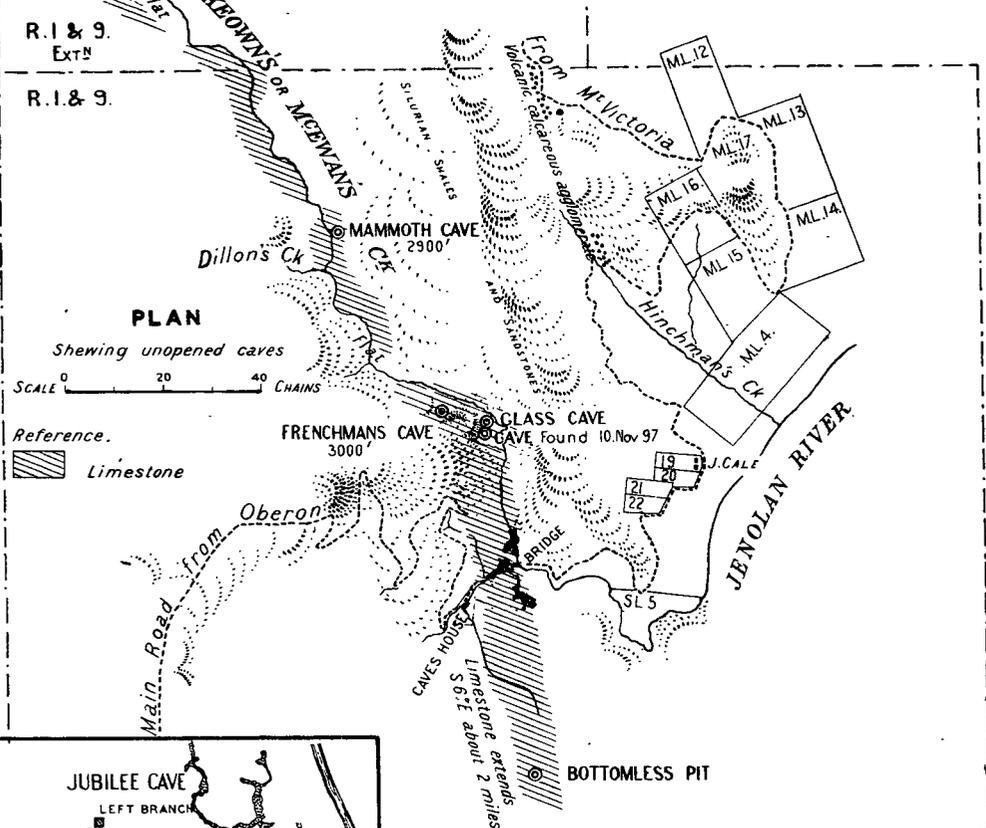
O. Sprickell L.S.



36 Miles from Mt Victoria via Hartley.
 35 " " Tarana " Oberon.
 27 " " Katoomba (Bridle track)

R.1 & 9.
Extⁿ

R.1 & 9.



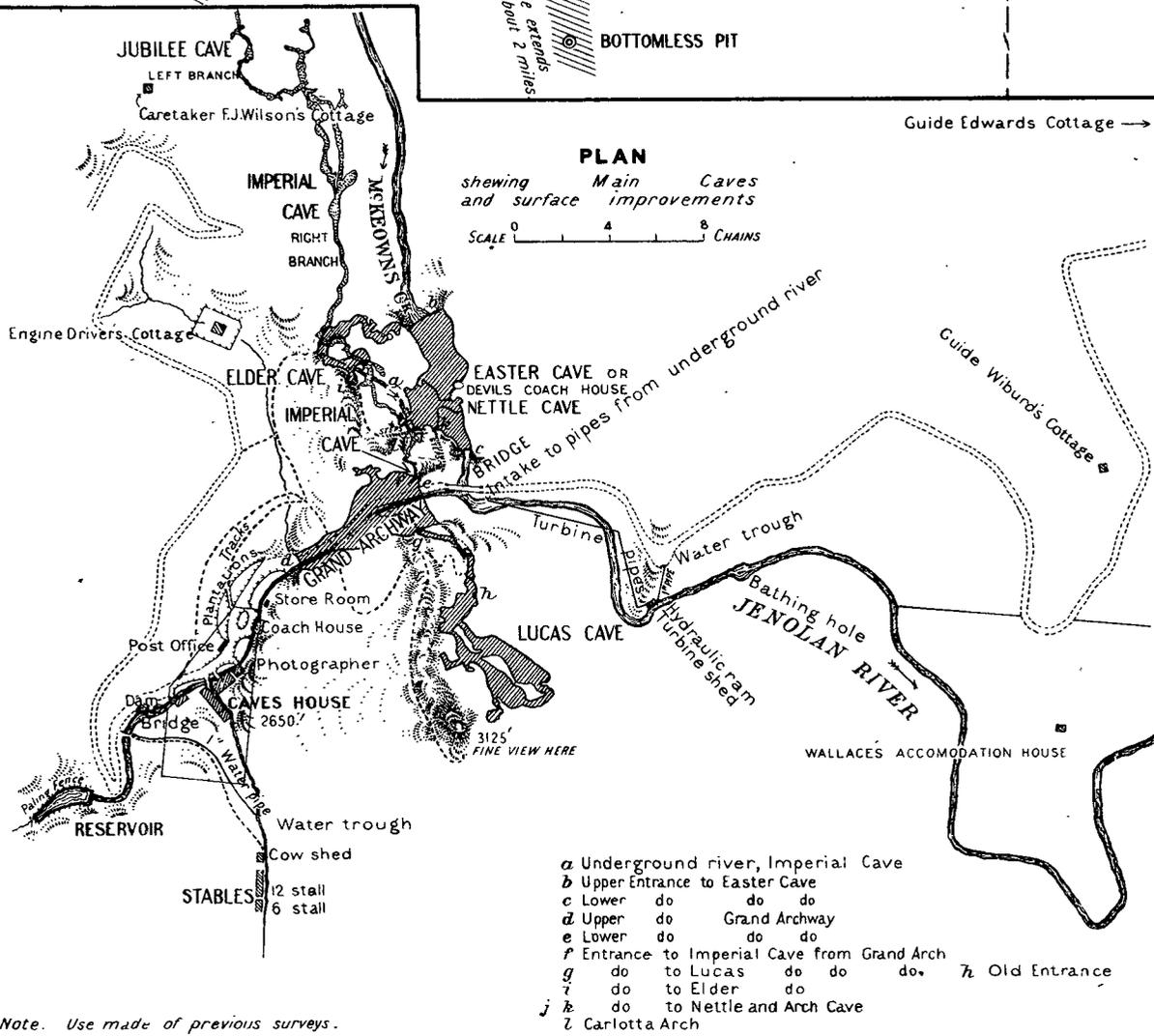
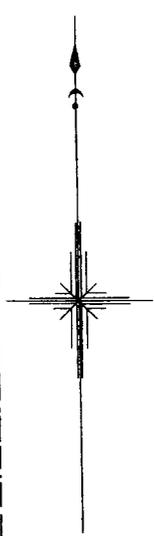
PLAN

Shewing unopened caves

SCALE 0 20 40 CHAINS

Reference.

Limestone



PLAN

shewing Main Caves and surface improvements

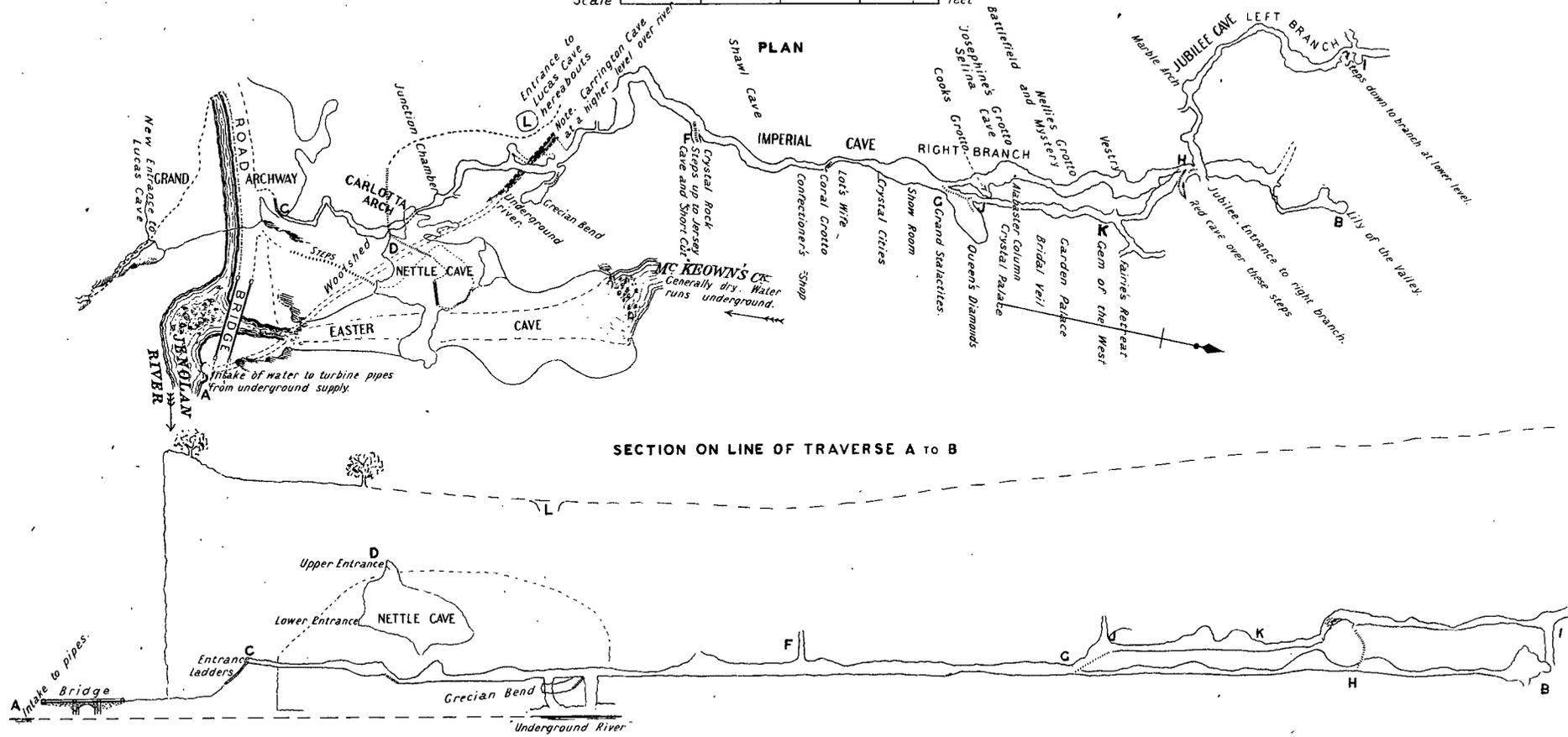
SCALE 0 4 8 CHAINS

- a Underground river, Imperial Cave
- b Upper Entrance to Easter Cave
- c Lower do do do
- d Upper do Grand Archway
- e Lower do do do
- f Entrance to Imperial Cave from Grand Arch
- g do to Lucas do do
- h do to Elder do
- i do to Nettle and Arch Cave
- l Carlotta Arch
- h Old Entrance

Note. Use made of previous surveys.

Sketch of part of the Jenolan Caves.

Scale 0 200 400 feet



About 2500 ft above sea level

SIG. #9

PHOTO-LITHOGRAPHED AT THE GOVT. PRINTING OFFICE,
 SYDNEY, NEW SOUTH WALES.
 18827

A. Hickett. L.S.

YARRANGOBILLY CAVES

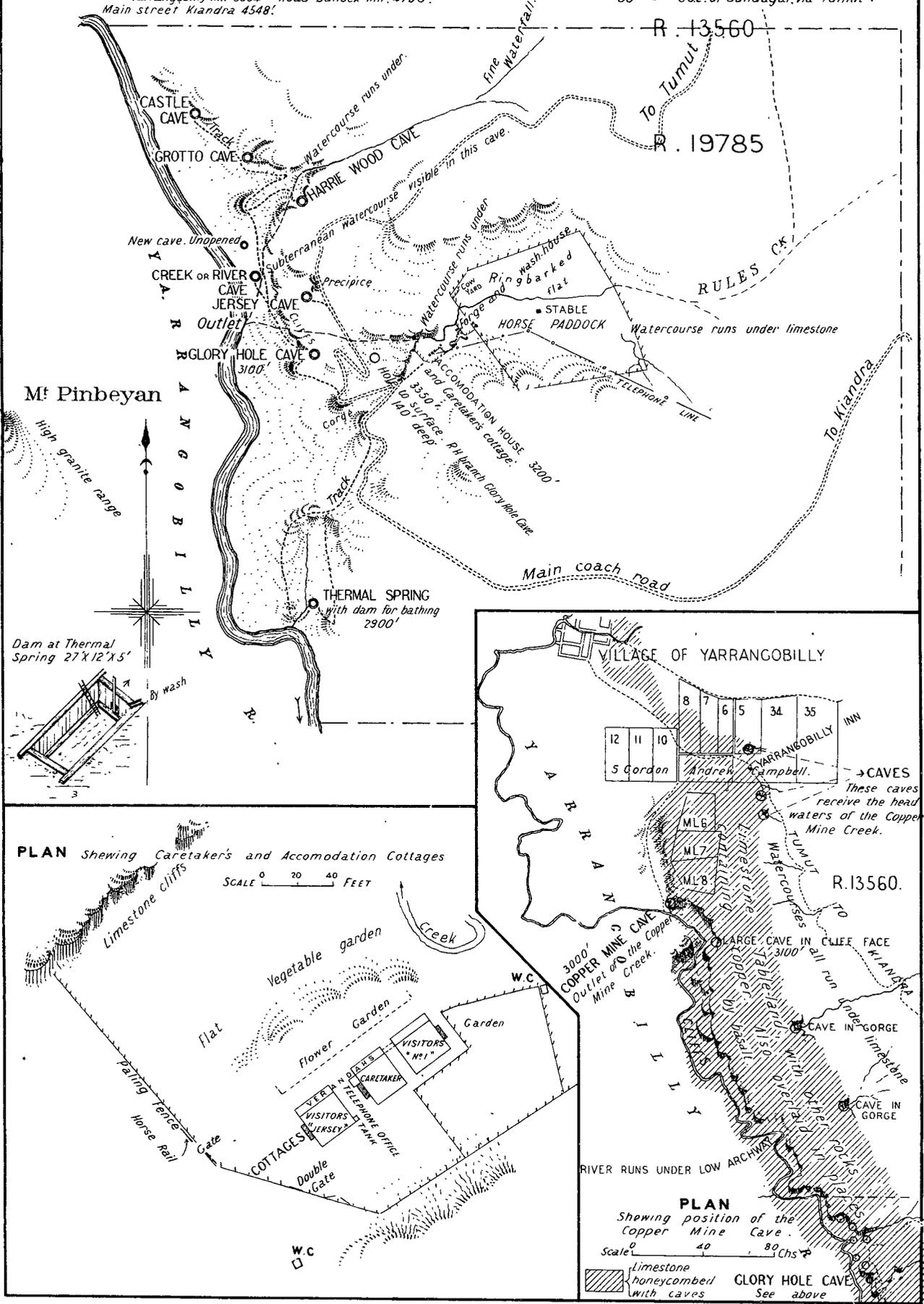
Parish of Yarrangobilly. County of Buccleuch.

Scale 0 20 40 Chains

O. Trickett Esq.

Heights in vicinity supplied by A. Adam Esq. Road Supt
 Road Tumut PD 923'. Road M^r Talbingo 3501'.
 Yarrangobilly Inn 3554'. Road Bullock Hill. 4768'.
 Main street Kiandra 4548'.

65 Miles N.W. of Cooma, via Kiandra.
 68 - SSE. of Gundagai, via Tumut.



M^t Pinbeyan

Dam at Thermal Spring 27'x12'x5'

PLAN Shewing Caretaker's and Accomodation Cottages

SCALE 0 20 40 FEET

VILLAGE OF YARRANGOBILLY

8	7	6	5	34	35
YARRANGOBILLY INN					
12	11	10	Andrew Campbell.		
5 Gordon			→ CAVES		

These caves receive the head waters of the Copper Mine Creek.

PLAN

Shewing position of the Copper Mine Cave.

SCALE 0 40 80 CHS

Limestone honeycombed with caves

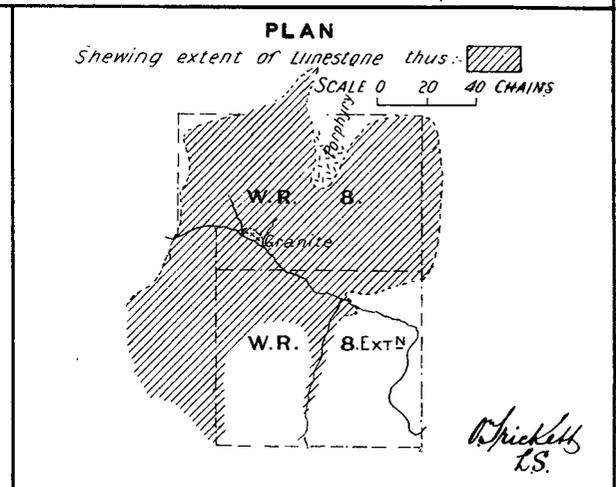
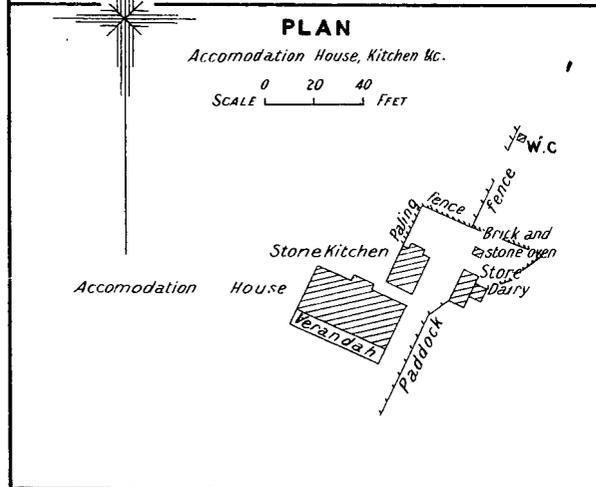
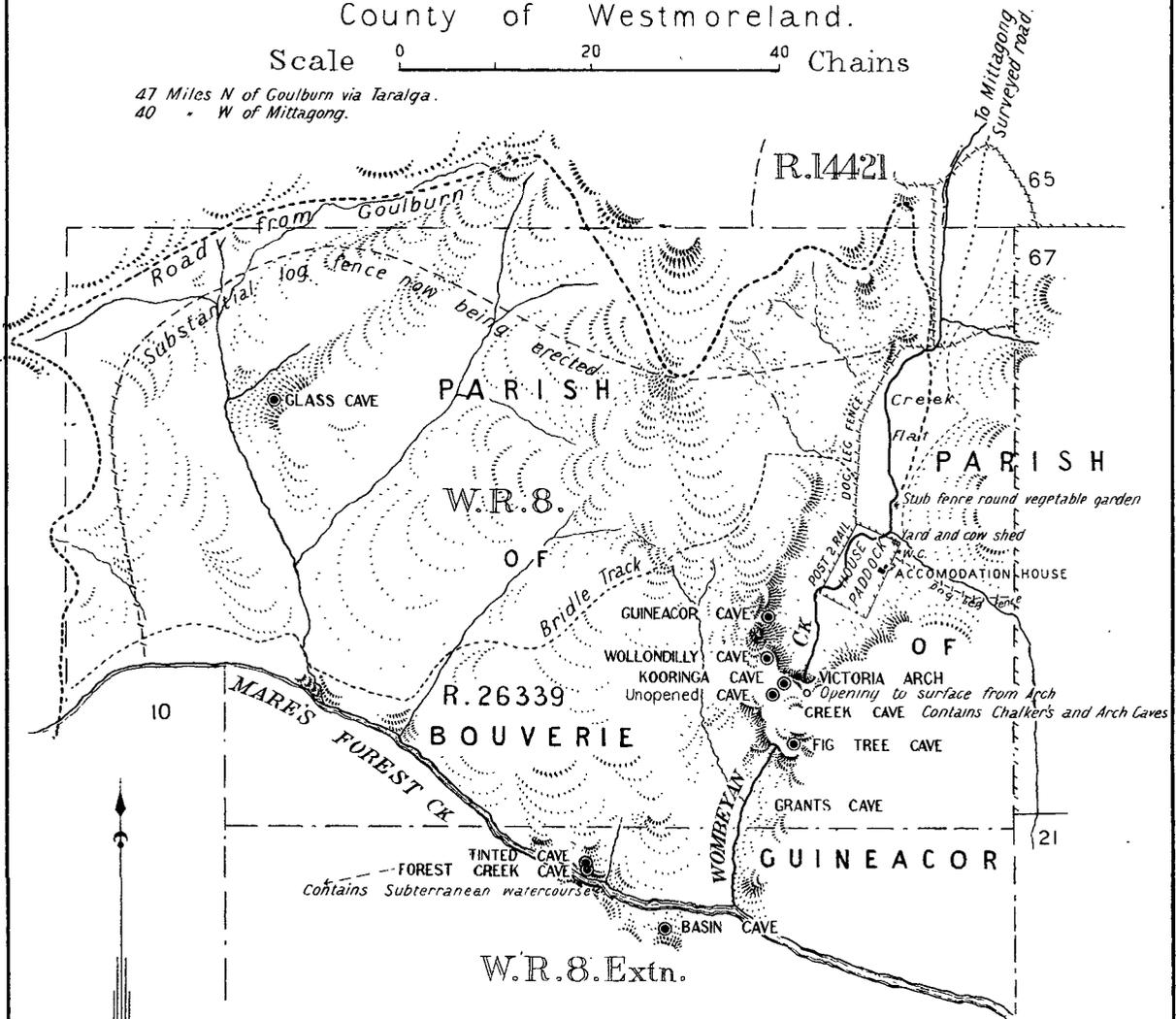
GLORY HOLE CAVE See above

WOMBELYAN CAVES

County of Westmoreland.

Scale 0 20 40 Chains

47 Miles N of Goulburn via Taralga.
40 W of Mittagong.



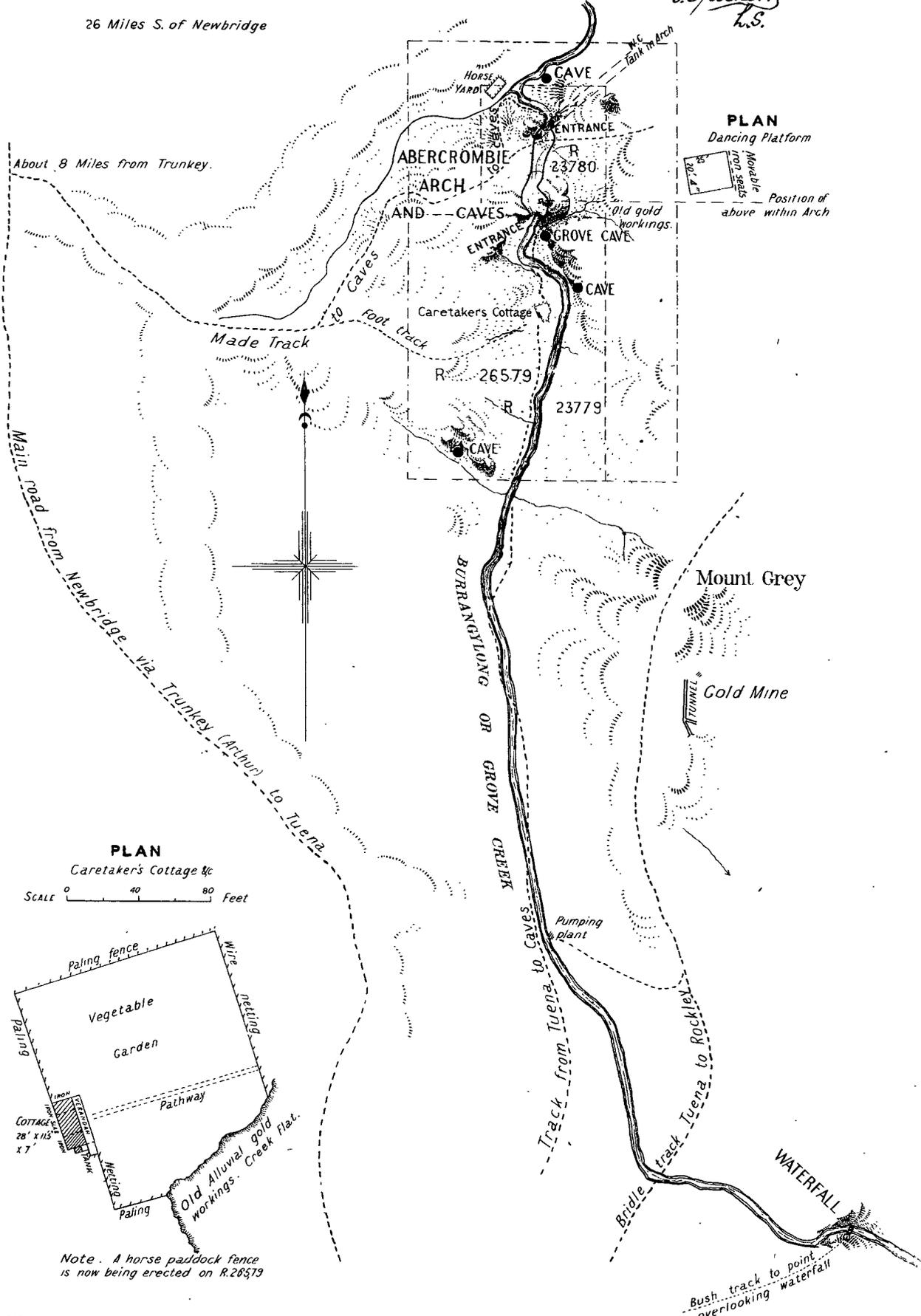
ABERCROMBIE CAVES

Parish of Bombah. County of Georgiana.

Scale 0 16 32 Chains

A. Sprickell
L.S.

26 Miles S. of Newbridge

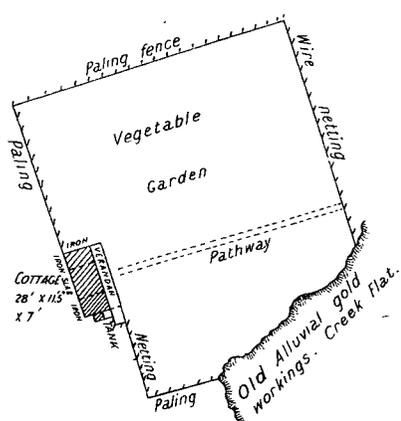


PLAN

Dancing Platform
Movable
foot seats
Position of
above within Arch

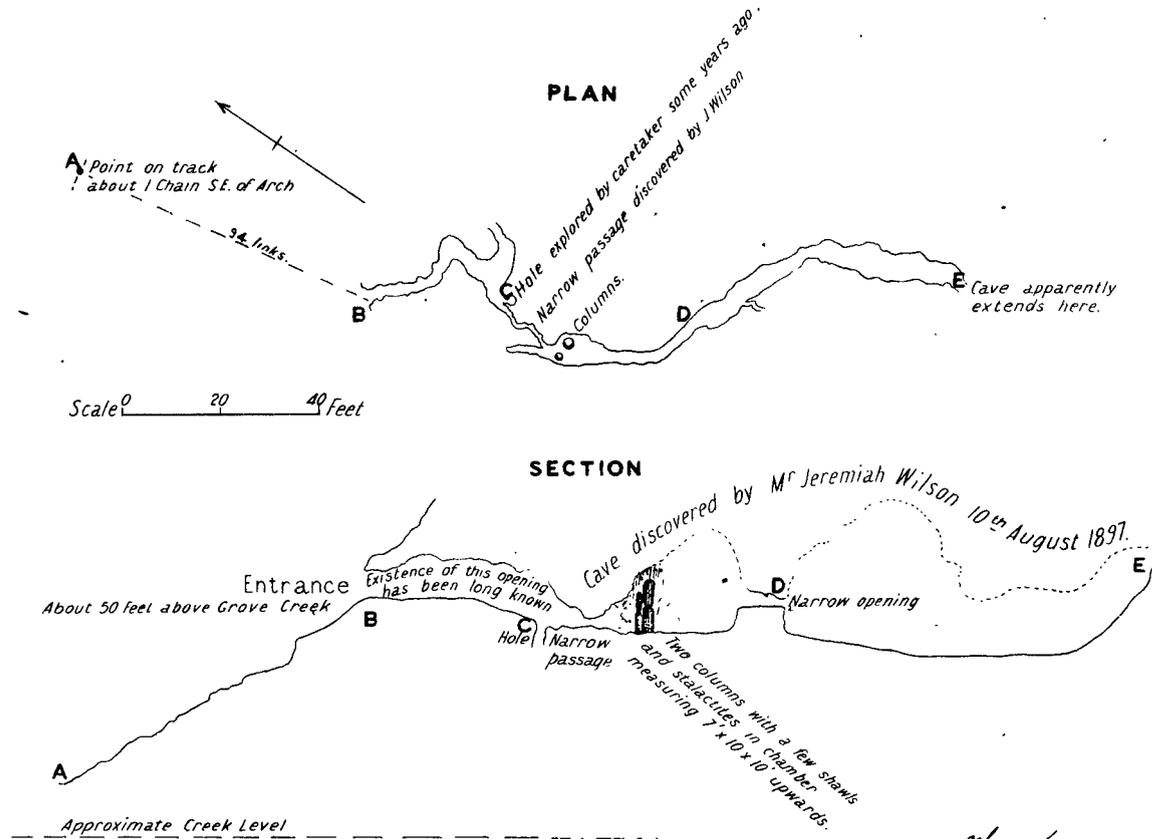
PLAN

Caretaker's Cottage &c
Scale 0 40 80 Feet



Note. A horse paddock fence is now being erected on R.26579

Sketch of the Grove Cave.
Abercrombie Caves.



Whicklett L.S.

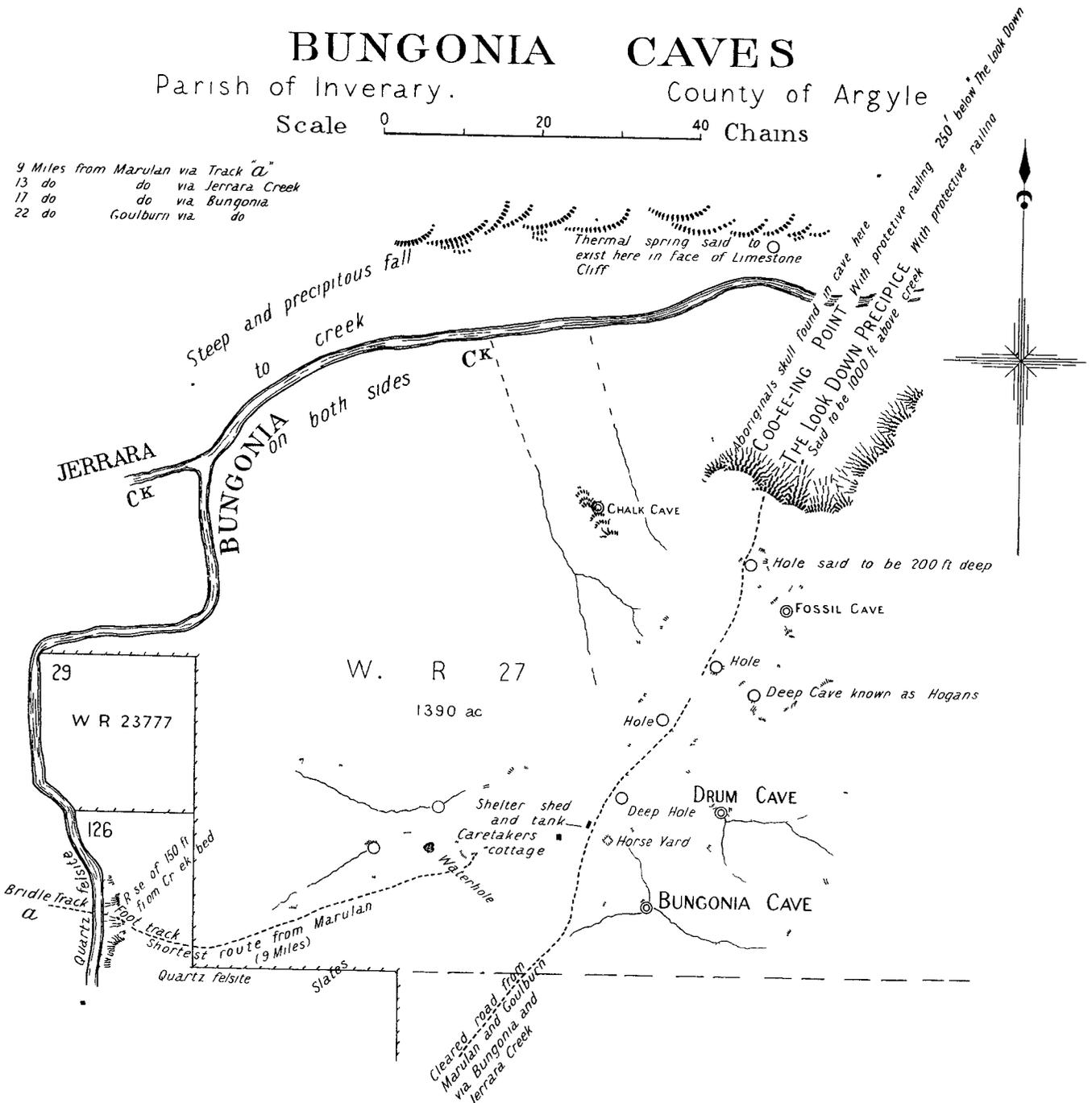
BUNGONIA CAVES

Parish of Inverary.

County of Argyle

Scale 0 20 40 Chains

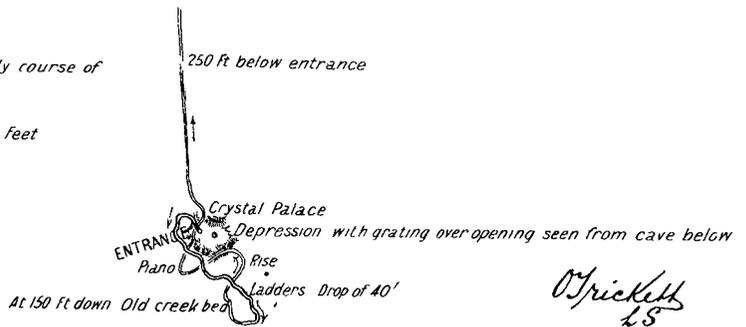
9 Miles from Marulan via Track "A"
 13 do do via Jerrara Creek
 17 do do via Bungonia
 22 do Goulburn via do



Note 640 acres of R 27 exempted from operation of wattle bark and other licenses by Gov's Gazette 15 97

Sketch shewing roughly course of Bungonia Cave

APPROX SCALE 0 100 200 Feet



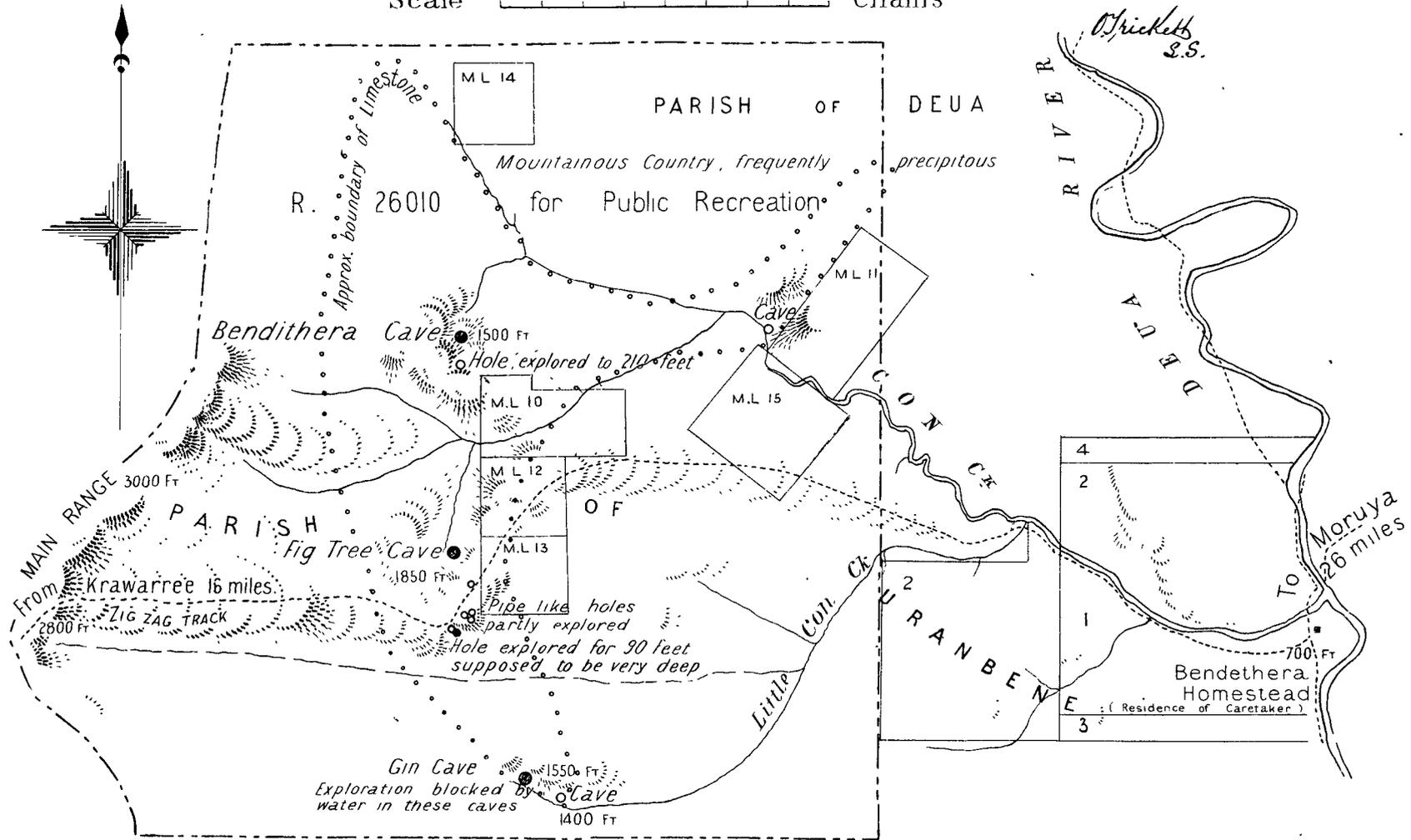
O'rickell
 15

BENDITHERA CAVES

County of Dampier.

21 Miles W S W of Moruya
34 Miles S of Braidwood

Scale 0 40 80 Chains

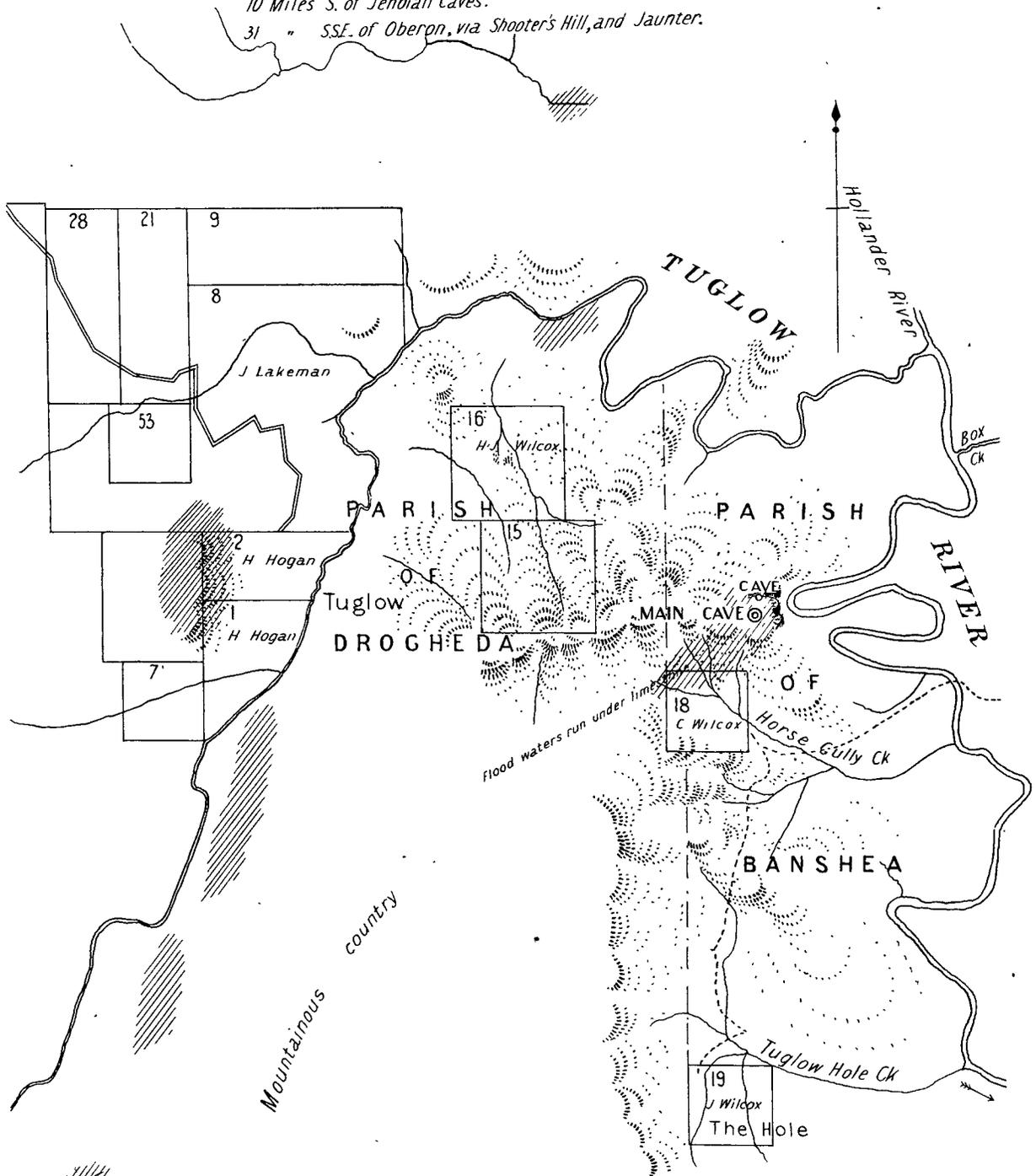


TUGLOW CAVES

County of Westmoreland.

10 Miles S. of Jenolan Caves.

31 " S.S.E. of Oberon, via Shooter's Hill, and Jaunter.



Limestone Creek passing under arch hereabouts

Scale 0 40 80 Chains

Reference.

 Limestone

Orickett h.S.

1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

DEPARTMENT OF MINES AND AGRICULTURE.

(ANNUAL REPORT OF THE STOCK AND BRANDS BRANCH FOR THE YEAR 1897.)

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

The Under Secretary for Mines and Agriculture to The Minister for Mines and Agriculture.

Sir,

I have the honor to submit the report of the Chief Inspector of Stock for the year 1897, which shows a decrease in both horses, cattle, and sheep, owing to the severe drought.

Inspectors' Work.

The inspections made by the staff number 45,116, exclusive of the inspections of Queensland cattle on the Border—rather more than usual—which include horses, cattle, sheep, dogs, pigs, and inspections of pounds, commons, &c., and in this work Inspectors travelled an average of 4,158 miles each. Nearly 300 prosecutions took place under the different Acts, and 258 convictions were obtained.

Horses.

The number of horses in the Colony at 31st December last, was 466,813, being a decrease of 17,215 on the previous year.

No serious outbreaks of disease have taken place. Blindness in horses again made its appearance in a few districts.

Cattle.

The cattle decreased during the year to the extent of 76,978, and now stand at 1,966,729.

Several districts report pleuro-pneumonia, and cases of tuberculosis have been met with in almost every district, and the cattle have been destroyed.

Tick Plague.

Unfortunately Ticks are making progress towards our Border, having recently been discovered at Brisbane. Every effort is being made to protect our Colony.

Sheep.

The returns show a decrease of 4,365,893 over the previous year.

The large decrease is of course due to the drought, as already stated.

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A careful classification made of the different breeds shows the total number of merino to be 40,065,936, comprising 29,011,805 combing, and 11,054,131 clothing; long-woolled sheep number 1,223,580; while the total of English sheep and cross-breeds is put down at 3,886,961.

Of all descriptions, the grand total at 31st December last, was 43,952,897.

During the year 136 stud rams and ewes were imported from America and Germany, and passed the prescribed quarantine.

It will be seen that nearly the whole of the sheep are now paddocked, and that their condition is generally reported as improving.

The Lambing.

The actual lambing for the whole Colony is estimated at 43½ per cent. The spring lambing gave 67½ per cent., and the autumn and winter lambing 35½ and 49 respectively.

The Clip.

3,725,278 lambs were shorn in the grease, and 192,224 washed; while 36,206,151 sheep were shorn in the grease. The wool of 2,306,097 was scoured.

The average weights of the clip are estimated as follows:—

							Lambs.	Sheep.
							lb. oz.	lb. oz.
Grease	...	...	...	...	...	...	1 15	5 12½
Scoured	...	...	...	...	...	...	1 5	3 4

The total clip for the Colony is estimated at 224,281,646 lb.; being a decrease of 30,594,536 lb. on the year 1896.

Of the total mentioned, 186,407,749 lb. are estimated to have been sent to Sydney, 29,760,856 lb. to Melbourne, 7,957,082 lb. to Adelaide, and 155,959 lb. to Brisbane.

The sheep were comparatively very free from disease during the year. Outbreaks of anthrax still occur in several districts, but owners are inoculating with decided success, and the deaths from this deadly disease are decreasing.

It is very satisfactory to report that the whole of the Colonies, including Tasmania and New Zealand, are now free from scab in sheep, Western Australia being the last to be free from that pest, and it is expected to be officially declared so at once.

Pigs.

The number of pigs in the Colony is 207,738, a number very far short of what there ought to be.

Dogs.

Sixty dogs were quarantined during the year, but of these thirty-six were "ships' dogs," and only remained in quarantine until the ships to which they belonged left the port.

Travelling Stock Reserves.

Owing to the dry season many of these reserves were quite bare of grass, and as the drought assumed serious proportions, travelling in many cases became impossible, and the sheep have perished.

The advisability of withdrawing the principal travelling stock reserves from lease is every day more apparent, and is a subject demanding early and serious consideration.

Registration of Horse and Cattle Brands.

About the average number of brands were registered during the year, and the total number registered since the Act came into force up to 31st December last, was 78,203, and the number of sheep brands were as follows:—Fire-brands, 5,539; tar-brands, 21,099; and ear-marks, 12,583.

Public Pounds.

There are 265 pounds now open, and these are periodically inspected.

Noxious

Noxious Animals.

The receipts under the Pastures and Stock Protection Acts during 1897 reached £35,235 3s. 8d. while the amounts expended by the different Boards in the Colony for scalps of animals destroyed, and other expenses, amounted to £40,340 13s. 11d.

In only three districts were the full rates of assessment levied.

The number of the different animals destroyed, and paid for, is shown in Appendix M to this Report

The Boards are still urging amendments in the Sheep, the Pastures and Stock Protection, and other Acts.

Among the Appendices, some interesting information is given by the Chief Inspector with regard to the Export Trade in Australian Mutton, Experiments in Cross-breeding, Defrosting of Meat, and the provisions of the proposed Amended Brands Bill are fully explained.

A large, elegant handwritten signature in cursive script, reading "W. C. L. Sacklow". The signature is written in dark ink and features a long, sweeping underline that extends to the left and then curves back under the main body of the signature.

Under Secretary, Department of Mines and Agriculture.

The Chief Inspector of Stock to The Under Secretary for Mines and Agriculture.

Sir, Department of Mines and Agriculture, Stock and Brands, Sydney, 1st June, 1898.

On the 2nd February last I submitted a Progress Report for the year ending 31st December, 1897, giving the approximate number of the horses, cattle, and sheep then in the Colony; and I have now the honor to submit for your consideration my complete Report for that year on the working of this Branch, which is, as usual, based very much upon Inspectors' estimates, owners still showing very little inclination to furnish data. It will be seen that there is a very large decrease in the number of and descriptions of stock. This, of course, is attributable to the excessively severe drought from which almost every portion of the Colony suffered. There has been no such general drought for more than fifty years. With the exception of a comparatively small part of the north-eastern and north-western portions of the Colony and some portions of Monaro, no part of the Colony escaped. In the Eastern Land Division of the Colony the losses were greatest in the middle portion. In the Central Division, the losses were very heavy, and they were greatest in the southern portion. In the Western Division, the losses were very light in the northern portion, not very heavy in the middle, but very heavy in the southern.

I have, &c.,

ALEX. BRUCE,

Chief Inspector of Stock.

INSPECTION OF OFFICES.

During the year the Office of the Inspector of Stock at Gundagai was visited, and the books, &c., inspected.

Bi-monthly inspections were made by the District Inspectors along the Queensland Border where there are Acting Inspectors.

INSPECTORS' WORK.

The Colony is now divided into sixty-five Sheep Districts, and there are fifty-two Staff Inspectors employed, who have made the following inspections during the year 1897:—

Stock, including horses, cattle, and sheep	...	...	...	24,659	inspections.
Reserves	...	...	...	5,778	„
Public Pounds	...	...	...	483	„
Commons	...	...	...	925	„
Dogs	...	...	...	898	„
Pigs	...	...	...	2,372	„
Under Pastures and Stock Protection Act	...	...	...	6,839	„
Under Public Watering-places Act	...	...	...	1,667	„
Under Diseased Animals and Meat Act	...	...	...	1,495	„
Total	...	...	...	45,116	„

being an average of 867 inspections by each Inspector.

The total number of stock inspected was,—111,738 horses, 852,721 cattle, and 23,877,231 sheep. This shows a decrease of 13,220 horses and 156,803 cattle, and of 259,606 sheep inspected during 1897, as compared with the previous year. This is exclusive of the inspections made by the Inspectors stationed along the Queensland Border.

Homebush Sale-yards.

As usual, the whole of the stock arriving at these yards were carefully inspected on each sale-day by an Officer of the Board of Health and an Inspector of Stock, and a considerable number were condemned as unfit for human consumption. The numbers of stock submitted to auction were as follows:—

Cattle, 112,338 head.

Sheep, 2,574,718 head,—

a weekly average of 2,160 cattle and 49,514 sheep. Compared with 1896, this is an increase of 23 cattle and a decrease of 2,185 sheep per week. These inspections occasionally lead to the detection of stolen stock, as the Inspector's duty requires him to compare the brands and marks on the stock with those in the permits and travelling-statements accompanying them, which are filed in this office for reference by persons inquiring about stock supposed to have been stolen, and the identification of the owners of animals condemned at the abattoirs. Some of the permits and travelling statements collected by the Inspector at Flemington are still imperfect, especially as regards the brands and marks, and are useless in tracing stock or for production in a court of law. If, therefore, this continues, the Inspector will prosecute for non-compliance with the Act and Regulations.

Inspectors' Mileage.

During the past year the staff travelled over a distance of 216,210 miles while on duty, an average of 4,158 each per annum.

Prosecutions

Prosecutions and Convictions obtained.

Under what Act.	No. of Prosecutions.	No. of Convictions.
Diseases in Sheep Acts	60	54
Imported Stock Acts... ..	1	...
Registration of Brands Acts	6	6
Pastures and Stock Protection Acts	174	163
Public Watering-places Act... ..	20	18
Impounding Acts	1	...
Diseased Animals and Meat Act	17	17
Total	279	258

Attention is again called to the neglect on the part of the Pastures Boards to compel defaulting owners to destroy the noxious animals on their holdings. If compulsion after caution was brought to bear on defaulters to a moderate extent by the Boards—and moderate compulsion can hurt no one seriously—simultaneous action would be brought about, and something like value for the money now expended would then be obtained, while the pest would, year by year, be reduced.

HORSES.

The number of horses in the Colony during the thirty-seven years previous to and including 1897 was as follows:—

Year.	No.	Year.	No.	Year.	No.
1861	251,497	1874	334,462	1887	390,609
1862	233,220	1875	357,697	1888	411,368
1863	273,389	1876	366,703	1889	430,777
1864	262,554	1877	328,150	1890	444,163
1865	284,567	1878	336,468	1891	459,755
1866	282,587	1879	360,038	1892	481,416
1867	278,437	1880	395,984	1893	481,399
1868	280,201	1881	398,577	1894	500,068
1869	280,818	1882	328,026	1895	482,459
1870	280,304	1883	326,964	1896	484,028
1871	337,597	1884	337,172	1897	466,813
1872	304,100	1885	344,697		
1873	328,408	1886	361,663		

being a decrease of 17,215 horses on the number returned for the previous year, which is accounted for by the severe drought which prevailed nearly over the whole Colony, less breeding, consequent on low prices, and use of bicycles.

The number of horses as returned in each Sheep District of the Colony will be found in Appendix A, as also the number of cattle, sheep, and pigs.

Breed of Horses.

Under this head the Inspectors' returns give the different breeds of horses as follows:—

	Ordinary.	Thoroughbred.	Total.
Draught	125,234	18,473	143,707
Light harness	108,308	13,758	122,066
Saddle	174,702	26,338	201,040
Grand Total			466,813

Australian and Foreign Horses Introduced and Imported.

Australian Horses—From other Australian Colonies.—By sea: 3 stud horses and 249 other horses. Overland: 25 stud horses, 21 stud mares, and 7,574 ordinary horses; total, 7,872.

Foreign Horses—From Foreign Countries (including Great Britain and Ireland).—During the year 13 horses were imported from England and other countries, and were subjected to the prescribed quarantine of fourteen days in Sydney (except in the case of two lots which arrived without complete certificates,

certificates, when an additional term of fourteen days was imposed, in accordance with Sub-Clause 3 of Regulation No. 33 under Imported Stock Acts) before being allowed to go inland. Particulars as to number and breed of these horses are as follows:—

Name of Importer.	Address.	Where Imported from.	Breeds.							
			Thoroughbred.		Hackneys.		Clydesdales.		Total.	
			Horses.	Mares.	Horses.	Mares.	Horses.	Mares.	Horses.	Mares.
W. Penrose.....	Sydney	London ...	1	...	...	...	...	...	1	...
W. Lane	"	"	1	...	...	...	...	...	1	...
The Sultan of Jahore...	Care of George Kiss, Pitt- street, Sydney.	India ...	...	...	...	1	...	...	...	1
Hon. H. C. Dangar ...	Sydney	London ...	1	...	...	...	...	...	1	...
L. Want	Boulevard, Lewisham.....	Fiji .....	...	...	1	1	...	...	1	1
Colonial Sugar Co.....	Sydney .....	" .....	...	...	1	1	...	1	...	2
Harold Pottie.....	232 Castlereagh-st., Sydney...	Honolulu...	...	...	1	...	...	...	1	...
James Cooke	Metropolitan Hotel, Sydney	.....	...	...	2	...	...	...	2	...
H. C. White	Havilah, Mudgee.....	.....	...	...	2	...	...	...	2	...
		Total.....	3	...	2	7	...	1	5	8

Horses fit for Sale, number Exported, Improvement, &c.

In the several districts of the Colony, Inspectors' reports show that there are 21,948 draught, 21,052 light harness, and 34,238 saddle horses fit for market, while of this number 19,612 are considered suitable for requirements of India and China.

During the year 8,819 horses were exported, principally to India, Victoria, Queensland, New Zealand, Western Australia, Fiji, Java, and the Straits Settlements.

Reports from forty districts say that the horses are improving.

In sixteen districts there is no improvement, while in nine districts they are reported as deteriorating.

Tax on Stallions.

A tax on stallions is still asked for by owners, and in the interest of horse-breeding generally, is I think highly desirable. Stallions should be registered and certified by a Veterinary Surgeon as sound.

DISEASES AND AILMENTS OF HORSES.

Blindness in Horses.

From five districts horses to the number of 500 are reported as having been affected with blindness.

Mr. Veterinary-Surgeon Robinson, after investigating this ailment, came to the conclusion that it was caused by parasites, and prescribed accordingly. His prescriptions, when properly administered, proved successful, and as there has been a recurrence of the disease his prescriptions are given again.

Vermifuge.

Arsenic—5 grains, carefully mixed in (say) 3 lb. bran, and give three doses to each horse at intervals of one week between each dose—each horse to receive 5 grains in each dose; or

Turps and { 3 draughts for each horse at intervals of one week between } 1 pint linseed oil.
Linseed Oil { each draught. } 2 oz. turps.

Tonic.

To follow the vermifuge if the disease has been allowed to make considerable progress:—

Black antimony	2 drams	} 1 dose.
Tartar emetic	...	...	...	...	...	1 dram
Sulphate of iron	...	...	...	...	...	3 drams
Common salt	...	...	...	...	...	$\frac{1}{2}$ oz.
Powdered sulphur	...	...	...	...	...	$\frac{1}{2}$ "

Dose to each horse at intervals of three days for three weeks, to be given in chaff or bran damped.

In the localities in which the horses are attacked, licks of salt and sulphur should be provided for them in troughs in the paddocks, and the horses could be enticed to the licks by a little bran and chaff.

Australian String-halt in Horses.

The horses in seven districts are reported as having been affected with this ailment during the year.

The majority of the horses, however, recovered when the spring set in.

Mr. Chief Veterinary-Inspector Stanley considers this a parasitical disease and is of opinion that the curative treatment is to expel the parasites by the administration of anthelmintics, and dose after dose may be required for this purpose. It is necessary to remember that brood after brood have to be poisoned; and that when they are ensconced in a living being, whose tissues are also liable to suffer from the introduction of drastic drugs, it is impossible to effect our object without perseverance; and to prevent reinfection it is advisable to move the patients to a sound paddock or, better still, into a yard or stable, to feed liberally, and also constantly supply salt with their food.

Preventive measures are very important. With this object, avoid putting an affected animal into a paddock at all favourable for the development of worms. Infected paddocks should not be used by horses, even temporarily; half an hour's grazing may effect them, especially during the spring and autumn. The first grass after summer will scour animals, and has been known to cure them, because at that season the parasites are prepared for exit. Microscopical examination shows one affected animal introduced, though he may be eventually cured, means later on (all circumstances being favourable) a hot-bed of infection or future tenants of the paddock.

Mr.

Mr. Veterinary-Surgeon Robinson is of the same opinion as to the nature of the disease, and prescribes as an anthelmintic and tonic the following mixture viz:—

Common salt	...	...	...	...	...	...	...	2 lb.
Powdered sulphur	...	...	...	...	...	...	...	2 „
Black antimony	...	...	...	...	...	...	...	1 „
Tartar emetic	...	...	...	...	...	...	...	$\frac{1}{2}$ „
Sulphate of iron	...	...	...	...	...	...	...	1 „

Doses, divided into ounce-doses and given in the feed, which may be varied by the administration of a draught every alternate day, composed of linseed oil (raw) 1 pint and spirits of turpentine 2 oz.

Influenza.

This disease is reported to have affected the horses in two districts. For its character, symptoms, and treatment see Appendix B.

Ophthalmia.

This disease is only reported from one district during the year. Its nature, and treatment recommended by Mr. Chief Veterinary-Inspector Stanley, is described in Appendix C, and is applicable to all stock.

The Skin disease (*prurigo*) is reported from one district; anthrax from one district; the Bot Fly from one district; ophthalmia from one district.

With the exception of the above ailments the horses throughout the Colony have been exceptionally free from disease during the year.

Owners are cautioned, where their stock are not removed from the paddocks where poisoned pollard is laid for rabbits, that they should see that the pollard pellets are small, as both horses and sheep are liable to pick them up when laid large or in lumps.

The estimated losses in horses during the year from various causes, principally through drought, amount to 25,258.

CATTLE.

The returns of cattle in the Colony during the thirty-seven years ending 31st December, 1897, stand as follows:—

Year.	No.	Year.	No.	Year.	No.
1861	2,271,923	1874	2,856,699	1887	1,575,487
1862	2,620,383	1875	3,134,086	1888	1,622,907
1863	2,032,522	1876	3,131,013	1889	1,741,592
1864	1,924,119	1877	2,746,385	1890	1,909,009
1865	1,961,905	1878	2,771,583	1891	2,046,347
1866	1,771,809	1879	2,914,210	1892	2,147,074
1867	1,728,427	1880	2,580,040	1893	2,155,500
1868	1,761,411	1881	2,597,348	1894	2,290,112
1869	1,795,904	1882	1,859,985	1895	2,023,768
1870	2,195,096	1883	1,640,753	1896	2,043,707
1871	2,014,888	1884	1,425,130	1897	1,966,729
1872	2,287,660	1885	1,317,315		
1873	3,794,327	1886	1,367,844		

From the above it will be seen there was a decrease caused by the great drought of 76,978 cattle during the year 1897, and an increase of 391,242, as against the decennial year 1887.

The number of cattle in each of the Sheep Districts of the Colony will be found in Appendix A.

155,112 cattle were introduced from other Colonies during the year, and 57,782 exported, being an increase in the number introduced over the number exported of 97,330.

Breeds of Cattle.

	Pure and Stud.	Ordinary.	Total.
Shorthorns	49,922	639,758	689,680
Hereford	27,907	182,416	210,323
Devon	10,351	60,115	70,466
Black-polled	1,055	6,000	7,055
Red-polled	58	1	59
Ayrshire	4,937	30,425	35,362
Alderneys	1,544	5,437	6,981
Holstein	93	376	469
Jersey	2,176	9,538	11,714
Crosses (first crosses)	.....	934,620	934,620
Grand Total	...	...	1,966,729

The crosses are estimated as follows:—

Shorthorn and Hereford	293,020
Shorthorn and Devon	139,300
Hereford and Devon	59,577
Shorthorn and Black-polled	19,040
Ayrshire and Shorthorn	56,966
Alderney and Shorthorn	582
Jersey and Shorthorn	2,414
Unrecognisable	363,721
Total	934,620

Australian and Foreign Cattle Introduced and Imported.

AUSTRALIAN CATTLE.—*Overland*—151 stud bulls, 33 stud cows, 154,881 ordinary cattle; total, 155,065.

By Sea—47 stud bulls and cows.

FOREIGN CATTLE.—During the year, two shorthorn bulls were imported from England by A. A. Dangar, of Barooka, Whittingham, and passed through the prescribed quarantine of sixty days in Sydney, before being removed inland. The term of quarantine for cattle from England has since been reduced from sixty to forty days.

Increase and Decrease of Cattle in the several Districts.

On reference to the number of cattle returned for each district as given in Appendix A hereto, it will be seen that there is an increase in eighteen districts, which is attributed to the extension of the dairying industry, additional settlement, increased breeding, large numbers introduced from Queensland, and more complete returns.

In the remaining forty-seven districts they have decreased, in some to a very slight extent and others very considerably, through losses by drought and less breeding.

The "Cast" of Fat and Store Cattle.

The estimated "cast" of fat cattle for market during the coming year is 257,366, and store cattle, 229,592. From fourteen districts the fat cattle are principally sent to Victoria; from three districts they are principally sent to South Australia and Tasmania; and the remaining districts supply the markets of Sydney, Maitland, Mudgee, Bathurst, Orange, Goulburn, Tamworth, Albury, Western Australia, and New Caledonia. The principal markets for store cattle are Muswellbrook, Maitland, Goulburn, and Wagga Wagga.

How kept.

The number of cattle kept wholly in paddocks is returned as 1,605,184; on open runs, 226,046; and the balance, 135,499, are depastured both ways.

Improvement and Deterioration.

In forty-two districts the cattle are said to be improving; in nineteen districts they are stationary; and in four districts deteriorating. The principal reasons given for the improvement are—introduction of good stud stock; more attention and care in selection and breeding of stock, more particularly those for dairying purposes; also closer culling and keeping in paddocks. The reason given for deterioration is inattention to breeding, some owners breeding from all sorts without respect to breed or quality, and using the same blood for years.

Their Diseases and Ailments.

Pleuro-pneumonia—Inspectors' reports show that this disease existed in twenty-two districts and that the cattle on 78 runs were affected; while the other districts are reported to be free from the disease. Inoculation was practised on 134 holdings as a preventive with good results in each case.

Cumberland Disease.—From ten districts the number of cattle reported to have died from this form of anthrax is 867.

Symptomatic Anthrax or Blackleg is reported to have carried off 315 head in seven districts.

Cancer and Actinomycosis.—1,606 cattle are reported to have died in forty districts from these diseases.

Tuberculosis.—Cattle to the number of 5,789, suffering from this disease, are reported from forty-two districts as having died or were killed and boiled down.

Red Water.—From one district eighteen deaths are recorded. The disease is prevalent in certain localities in the coast country at particular seasons, more so in spring.

Ophthalmia occasionally assumes an epidemic form, and the number of cattle attacked is in some cases considerable, causing much temporary inconvenience to stock from blindness. Outbreaks have been reported from twelve districts, and the deaths numbered 697. For treatment, see Appendix C.

Poisonous Plants.—From nine districts deaths to the number of 1,440 are reported through eating supposed poisonous plants, but they were, it is believed, due in most cases to hoven, arising from starving cattle gorging themselves with indigestible vegetation.

Tick-fever.—For statement with reference to the steps taken in this Colony to prevent the introduction of Tick-fever, and the progress and treatment of the disease in Queensland, see Appendix D.

Diseased Animals and Meat Act.

The number of cattle condemned under this Act are given in Appendix E, kindly furnished by the Board of Health.

SHEEP.

SHEEP.

The number of sheep in the Colony during the thirty-seven years ending 31st December, 1897, stands as follows:—

Year.	No.	Year.	No.	Year.	No.
1861	6,119,169	1874	22,797,416	1887	46,965,152
1862	6,558,896	1875	25,353,924	1888	46,503,469
1863	7,169,126	1876	25,269,755	1889	50,106,768
1864	9,082,463	1877	21,521,662	1890	55,986,431
1865	9,650,106	1878	25,479,484	1891	61,831,416
1866	11,644,593	1879	30,062,910	1892	58,080,114
1867	15,066,377	1880	35,398,121	1893	56,980,688
1868	16,000,090	1881	36,591,946	1894	56,977,270
1869	16,848,217	1882	36,114,814	1895	47,617,687
1870	16,218,825	1883	37,915,510	1896	48,318,790
1871	16,766,012	1884	31,660,321	1897	43,952,897
1872	17,873,696	1885	37,820,906		
1873	18,990,595	1886	39,169,304		

For number of sheep in the several Sheep Districts, see Appendix A, and Appendix F for different classes of owners and the sheep they own.

Increase and Decrease.

This shows a decrease for the whole Colony of 4,365,893, occasioned by the prolonged drought.

The number of sheep imported during the year was 1,171,794, and the number exported 1,022,295, an increase in the imports over the exports of 149,499 sheep.

In Appendix G there is a statement kindly furnished by the Government Statistician, which accounts for this decrease.

The different Breeds.

<i>Merino.</i>					
<i>Combing.</i>					
	Rams.	Ewes.	Wethers.	Lambs.	Total.
Pure and stud—Superfine	55,431	725,245	276,906	245,328	1,302,910
Ordinary	66,683	1,970,103	1,627,810	657,778	4,322,374
					<u>5,625,284</u>
Pure and stud—Medium	43,450	1,203,223	503,596	425,394	2,175,663
Ordinary	120,163	5,588,476	3,980,107	1,471,515	11,160,261
					<u>13,335,924</u>
Pure and stud—Strong	40,168	1,201,480	652,900	371,161	2,265,709
Ordinary	75,082	3,458,986	3,389,350	861,470	7,784,888
					<u>10,050,597</u>
Total, Combing					<u>29,011,805</u>
<i>Clothing.</i>					
Pure and stud—Superfine	11,751	162,423	154,731	54,541	383,446
Ordinary	17,494	581,974	408,473	203,519	1,211,460
					<u>1,594,906</u>
Pure and stud—Medium	13,967	309,872	171,152	90,341	585,332
Ordinary	49,930	2,732,202	1,822,112	756,248	5,360,492
					<u>5,945,824</u>
Pure and stud—Strong	9,351	373,173	281,743	142,521	806,788
Ordinary	23,930	1,162,388	1,174,923	345,372	2,706,613
					<u>3,513,401</u>
Total, Clothing					<u>11,054,131</u>
Total number of Merino Sheep					40,065,936

Long-woolled Sheep.

	Rams.	Ewes.	Wethers.	Lambs.	Total.
Pure and stud—Lincoln ...	27,246	81,919	52,112	39,040	200,317
Ordinary	20,892	191,561	196,034	87,742	496,229
Total, Lincoln					696,546
Pure and stud—Border Leicester	3,994	34,460	72,845	16,467	127,766
Ordinary	5,815	55,716	87,767	35,236	184,534
Total, Border Leicester					312,300
Pure and stud—English Leicester	2,208	19,699	6,867	9,616	38,390
Ordinary	3,098	37,406	25,946	25,883	92,333
Total, English Leicester					130,723
Pure and stud—Southdowns	263	2,667	961	1,759	5,650
Ordinary	234	7,832	1,728	1,396	5,240
Total, Southdowns					10,890
Pure and stud—Shropshire Downs	634	4,653	5,850	1,322	12,459
Ordinary	224	4,234	4,461	3,190	12,109
Total, Shropshire Downs					24,568
Pure and stud—Hampshire Downs	21	.....	.....	.....	21
Total, Hampshire Downs... ..					21
Pure and stud—Romney Marsh	1,585	9,679	6,024	4,316	21,604
Ordinary	1,009	11,465	10,240	4,167	26,881
Total, Romney Marsh					48,485
Pure and stud—Cotswold ...	46	.....	.....	.....	46
Pure and stud—Cheviot ...	1	.....	.....	.....	1
Pure and stud—Dorset Horn	1	.....	.....	.....	1
Total number, Long-woolled Sheep					1,223,580

Cross-bred Sheep.

Crosses of the above breeds and Merino, principally Lincoln with Merino.	16,382	1,084,780	1,038,240	523,979	2,663,881
Total, Long-woolled and Crosses					3,886,961

The decrease of long-woolled and cross-bred sheep for the year is 171,328.

Grand total 43,952,897

Sexes and Classes.

Rams	671,052
Ewes	20,949,616
Wethers	15,952,928
Lambs	6,379,301
Total	43,952,897

Australian and Foreign Sheep Introduced and Imported.

Australian Sheep Overland from other Colonies.—Stud sheep, 3,288; ordinary, 1,165,859; total, 1,169,147.

By Sea from other Colonies.—2,509 stud sheep were introduced from the other Australian Colonies by sea; particulars of those sold at the annual stud sales are given in Appendix H.

The prohibition against the introduction of stock from Western Australia is now in force only so far as relates to sheep, but it is expected to be shortly withdrawn against them, as that Colony is now said to be free from scab, though not officially declared

Foreign

Foreign Sheep.

During the year, 136 stud rams and ewes were imported from America and Germany, and passed through the prescribed quarantine of sixty days in Sydney, before being allowed to be removed inland.

Particulars as to number and breed of Foreign Imported Sheep are as follows:—

Name of Importer.	Address.	Imported from—	Merino.					
			German.		American.		Total.	
			Ram.	Ewes.	Ram.	Ewes.	Ram.	Ewes.
Messrs. Steiger & Gadegast ...	Care of H. Austin & Co., 682 Pitt-street, Sydney.	Germany ...	12	4	...	...	...	...
Messrs. Moas & Breymán.....	Saxony, Germany	„ ...	4	...	...	...	...	...
H. C. White	Havilah, Mudgee.....	„ ...	...	19	...	...	...	...
Messrs. Norton & Clarke.....	Care of Pitt, Son, & Badgery, Sydney.	America ...	...	...	19	19	...	...
Messrs. Morrison & Noonan ...	Care of Hill, Clark, & Co., Sydney	„ ...	...	...	29	30	...	...
			16	23	48	49	64	72

The "Cast" of Fat and Store Sheep.

The annual "cast" of fat sheep for the ensuing season is estimated at 4,811,946, and store sheep, 4,587,021.

How Sheep are kept.

Paddocked ...	...	...	...	...	...	...	43,198,554
Shepherded	...	...	...	...	...	...	195,160
Both ways ...	...	...	...	...	...	...	559,183
							<u>43,952,897</u>

Condition of the Flocks.

In forty districts the sheep are said to be improving, the principal reasons given being more attention to breeding, paddocking, introduction of high-class rams and ewes, more careful classing and culling.

In seventeen districts they are said to be stationary, and in eight districts they are deteriorating.

Lambing.

From a return of the autumn, winter, and spring lambings obtained from the Inspector for each Sheep District, the average percentage of lambing for the whole Colony is estimated at $42\frac{2}{3}$ per cent., *i.e.*, calculating the number of lambs marked on the number of ewes put to the rams. The spring lambing was the highest, averaging $67\frac{1}{3}$ per cent., while the autumn and winter lambings averaged $35\frac{1}{2}$ and 49 per cent. respectively. The estimated number of ewes put to the ram during the year was 14,782,469, and the number of lambs returned as marked during the autumn, winter, and spring lambings was 6,229,603. The total number of lambs returned on 31st December was 6,379,301, giving an actual percentage of $43\frac{1}{3}$.

*The Clip.**Average per Sheep.*

Lambs.—The number of lambs shorn in the grease was 3,725,278; the number washed, 192,224; total lambs shorn, 3,917,502.

Sheep.—The number of sheep shorn in the grease was 36,206,151; and scoured, 2,306,097; total sheep shorn, 38,512,248.

The average weights of the clip are estimated as follows:—

						<i>Lambs.</i>	<i>Sheep.</i>
						lb. oz.	lb. oz.
Grease	...	...	...	...	...	1 15	5 12 $\frac{1}{2}$
Scoured	...	...	...	...	...	1 5	3 4

Total Clip.

Total clip in the Colony for the year 1897, according to the number of sheep, would be:—

36,206,151 sheep shorn in the grease; average clip, 5 lb. 12 $\frac{1}{2}$ oz. per sheep	=	209,316,811 lb.
2,306,097 „ scoured	=	7,494,815 „
3,725,278 lambs shorn in the grease	=	7,217,726 „
192,224 „ scoured	=	252,294 „
		<u>224,281,646 lb.</u>

The estimated total weight of the clip as shown above is below that of the previous year by 30,594,536 lb., owing principally to the large decrease in the number of sheep and lambs shorn. This, again, was occasioned by the exceedingly severe drought which affected the greater portion of the Colony. For the same reason the average clip per fleece in grease for sheep and lambs is $7\frac{1}{2}$ oz. lower than in 1896.

Condition

Condition of Clip.

In seven districts the clip is reported as entirely sound; in fourteen districts, from 90 to 98 per cent. is sound; in fifteen districts, from 75 to 90 per cent. is sound; and in remaining districts weak. In a few districts only is the yolk reported to be well up. Although the clip is reported as being very free from burrs and grass-seeds, it suffered to a much greater extent from dust than in the previous year.

Exportation of Clip.

The clip grown in the Colony of New South Wales is shipped principally to England, America, France, Germany, and Japan, and considerable portions of it is so from the ports of the three neighbouring Colonies, as well as from Sydney and Newcastle. The portions of our clip thus shipped from the other Colonies is often mistaken as the produce of those Colonies, more particularly for that of Victoria and South Australia.

The following is an estimate of the clip sent to Sydney, and also the proportion sent across the Border to Melbourne, Adelaide, and Brisbane for the years 1896 and 1897:—

Port of Shipment.	1896.			1897.		
	Greasy.	Washed.	Total.	Greasy.	Washed.	Total.
	lb.	lb.	lb.	lb.	lb.	lb.
Sydney	199,346,896	5,685,757	205,032,653	180,329,890	6,077,859	186,407,749
Melbourne	38,280,139	301,707	38,581,846	28,841,536	919,320	29,760,856
Adelaide	9,220,519	1,901,509	11,122,028	7,207,152	749,930	7,957,082
Brisbane	139,655	.....	139,655	155,959	.....	155,959
	246,987,209	7,888,973	254,876,182	216,534,537	7,747,109	224,281,646

This shows a decrease in the quantity of wool shipped during the year from the Ports of Sydney and Newcastle of 18,624,904 lb., as compared with that shipped in 1896, but the decrease in the quantity of New South Wales wool shipped from Melbourne is proportionately larger.

Classing of Clip.

In forty districts the clip is reported as having been fairly to well classed. In the other districts it is not considered to have been so, the reasons given being, owners consider that it does not pay, that prices obtained are no better, also want of convenience, clips not large enough to warrant expense, and the difficulty of obtaining competent wool-classers.

Wool-presses.

A great number of different kinds of presses are used; those most in favour are Ferrier's Patent, and Williams', and Robinson's; rack screw and pinion presses are used. There is still room for improvement in the mode of pressing, especially by the owners of small clips.

Woolpacks.

The woolpacks used are mostly Calcutta and Dundee, of various sizes, from 4 ft. 6 in. x 2 ft. 2 in. to 5 ft. 3 in., and the weight from 10 to 12 lb.

On fifty-three holdings the wool is dumped before leaving.

Sheep-brands and Marks.

During the year 1897 the number of Sheep Brands and Ear-marks recorded, transferred, and cancelled were as follows:—

Recorded.	Transferred.	Cancelled.	Total Registered.
Fire Brands ... 169	Fire Brands ... 70	Fire Brands ... 70	5,539
Tar do ... 1,051	Tar do ... 169	Tar do ... 163	21,099
Ear-marks ... 751	Ear-marks ... 153	Ear-marks ... 140	12,583
Total ... 1,971	Total ... 392	Total ... 373	Total 39,221

Ear-marking and Tattoo-marking.

In all districts the system of ear-marking sheep is now generally carried out, and the system of tattoo-marking is mostly used by owners of stud-sheep, not as yet to any great extent in the case of ordinary flock sheep, but where tried it has been found to be a good preventive of sheep-stealing.

Destruction of Wool by Tar and Paint Brands.

Buyers still complain of the destruction to wool by the use of the above materials for branding purposes; but as yet it has been found impossible to find any pigment or other material for branding sheep which will be sufficiently legible and lasting and not damage the wool. As this is the case, the only course for owners to adopt is to put as few paint brands as possible on their sheep, and see that the branding is carefully done.

DISEASES

DISEASES IN SHEEP.

Scab.—The flocks in this Colony and in the Colonies of Queensland, Victoria, South Australia, New Zealand, and Tasmania are free from scab; and Western Australia may now also be considered clean, as no case of scab has been met with in that Colony since May, 1895, and it is expected to be soon officially declared clean.

Anthrax.—This disease appears to be increasing, and owners are now availing themselves of the facilities offered for vaccinating their sheep, which has been the means of lessening the great mortality previously suffered by them. A statement (Appendix I) is attached showing the vaccinations made and the results.

At the request of the Council of Advice inquiries have been made with a view to purchase the secret of preparing Anthrax Vaccine, and placing it at the disposal of owners at a very reasonable cost, but so far the negotiations which have been renewed have not been successful.

The Minister has also under consideration the expediency of placing a sum on the next estimates to provide the necessary salary for a bacteriologist for the department, who, in addition to preparing the virus of pleuro-pneumonia and the vaccine of anthrax and other diseases, would be prepared to investigate and report on outbreaks of diseases in cases where the veterinary authorities were in doubt.

Foot-rot.—Five districts report foot-rot among the sheep, but only to a slight extent, the past season not being favourable to its spread. Remedies for foot-rot will be found as Appendix J.

Fluke.—Owing to the dry season this disease also has been less prevalent than in previous years. The losses from fluke reported from thirteen districts amount to 44,300.

To prevent its spread, owners are again urged to free their land from surface water by running plough furrows where practicable and helping them with the spade. The preventives used by owners were salt, tar, and turps, sulphate of iron and Liverpool salt, and salt and sulphur.

Parasitic Worms.—Twelve districts report the sheep as having been infested with worms to the extent of about $\frac{1}{2}$ per cent.; in seven districts the sheep were infested with stomach, lung, and tape worms; five districts with stomach and tape worms; in one district with stomach and lung worms; and in two districts with stomach-worms only.

The following results have been gathered regarding the efficacy of the various drenches and licks used for sheep for worms:—

Drenches.

Arsenic.—For the stomach and tape worms the arsenic and soda drench is still reported as the most effective, and has been by far the most generally used. It has, however, been recommended that potash, as being less severe on the lining of the stomach, should be substituted for soda in its preparation. The arsenic and soda drench is reported by several of the Inspectors as having been also efficacious for lung-worms. No authenticated information has been received of this drench affecting the health of the sheep or injuring the wool.

Turpentine.—Turpentine, with various mediums, has been very generally given for stomach, tape, and lung worms, with good results, when repeated.

Hayward's Specific is reported as having given satisfactory results where used.

Pottie's, Weaver's, and Walsh Bros.' Drenches are reported to have been used in a few districts with fairly satisfactory results.

H. C. Suttor's Drench is said to be, by persons using it, very good.

While it can be said that a decided improvement follows the administration of most of the drenches generally used, it is a fact that even in the case of the most effective the *post-mortem* examinations disclose that generally where the sheep are at all badly infested some worms are still alive; and this again, it is believed, arises from the owners delaying too long in drenching, and allowing the worms to have too great a hold on the sheep before they are drenched. The consequence is that some worms are left, which keep the sheep from thriving, and, with the introduction of fresh eggs from the water and pasture—if the weather is at all favourable for the development of the worms—in the course of a few months the sheep are as bad as they were before they were drenched. To make the cure effective, therefore, sheep which have been badly infested should, on receiving one drench, be kept as near the drenching yards as possible, and receive a second drench in the course of twelve or fourteen days after the first.

But, while licks and drenches should be provided and given at as early a date and as often as required, owners should give their earnest attention to the removal of what may be termed the contributing causes of the pest by avoiding overstocking, attending to the proper nourishment of the lambs and weaners, burning off old pasture, and getting rid by draining of surface and stagnant water, as suggested in Vol. II, part 2, of the *Agricultural Gazette*.

A specific supplied by Mr. L. G. Jones for fluke and worms, strongly recommended by several owners, was carefully tested at Sutton Forest last year, but proved to be ineffective.

Licks.

It is reported that the following licks have been used with good results:—

Salt and sulphur.	Salt, sulphate of iron, and Hayward's Specific.
Salt and sulphate of iron.	Salt, tar, and turpentine.
Salt and turpentine.	Pottie's Preventive Lick.
Salt, sulphate of iron, and turpentine.	Salt and lime.
Salt, sulphur, and sulphate of iron.	Salt, sulphur, and lime.

It

It is scarcely necessary to point out that a lick, if it is efficacious in warding off an attack of worms, is far preferable to a drench; and as owners in all but the true saltbush country are now aware that it pays them well to give their sheep a liberal supply of salt, it would add very little to the trouble or expense to give once a month with the salt some of the other ingredients here mentioned which they found from experience was to any extent effective in protecting their sheep from the worm-pest.

The following further progress report of his investigations in regard to fluke and worms in sheep has been received from Dr. Cobb:—

Department of Mines and Agriculture, Sydney, 23rd April, 1898.
THE results of the work in connection with the parasites of stock upon which I have been engaged in years past, and to which reference has previously been made in the Annual Reports of the Stock Branch, are now in course of publication in the *Agricultural Gazette* of New South Wales. About one hundred pages, with several hundred illustrations, having already appeared. I am sorry to say that some of the matter, which is of much practical interest, will have to suffer some further delay in order to put the result on a sound scientific basis, but this delay will not be protracted a day longer than necessary.

There is a good demand for the opening part of the chapter on the Sheep Fluke, which appeared in the *Gazette* for the month of March. It has been favourably received in many parts of the world.

The chapter on round-worms appeared in the *Gazette* for April, and has been issued in the hope of inaugurating an Australian school of experts in this important group of parasites.

N. A. COBB.

Sheath Disease in Wethers.

A considerable number of fresh outbreaks of this disease have been reported during the year.

Full particulars as to the nature of the disease, its treatment, and prevention, as furnished by Mr. Veterinary-Surgeon W. Scott, will be found in my Annual Report for 1895, as Appendix H.

PIGS.

On 31st December, 1897, the number of pigs in the Colony stood at 207,738, being a decrease of 6,852 on the returns for the previous year.

Five thousand two hundred pigs were introduced by sea and land from the other Australian Colonies and England.

Six thousand three hundred and ninety-two pigs were exported during the year.

Twenty-two ships' pigs were killed on board, as the owners would not quarantine them.

The latest reports with respect to swine fever shows that there has been a decrease in the number of outbreaks in Great Britain and Ireland during the year 1897 as compared with previous years.

DOGS.

Twenty-four dogs which arrived from England and other places outside the Australian Colonies passed through quarantine during the year.

Thirty-six "ships' dogs" were quarantined during the stay of vessels in port, and seven "ships' dogs" were destroyed.

All "ships' dogs" and other stock on board foreign vessels for the use of the passengers and crew are now quarantined during the stay of the vessel to which they belong in port, whether in Sydney or at Newcastle.

Four hundred and two Colonial dogs were introduced at the Port of Sydney from the other Colonies, and 304 dogs were inspected prior to exportation.

Diseases in Dogs.

Although rabies is reported as having decreased in the United Kingdom during the past year, the returns for that period are considered as anything but satisfactory.

TRAVELLING STOCK (*Reserves, Roads, Tanks, Wells, &c.*).

Trespass on Reserves.

In thirty-two districts the travelling stock and camping reserves are reported as having been trespassed upon, generally only to a slight extent, and in thirty-three districts they are reported as being free from trespass.

From thirty-six districts it is reported that 2,517,641 sheep have travelled through during the year in search of grass and water. From twelve districts the number of loafing sheep is given at 156,296.

Owing to the continued drought the number of sheep on the road were more than double that during the previous year, and the reserves, where leased to adjoining holders, have been found quite inadequate for this extra traffic, owing to the lessees constantly feeding their stock on them.

The remedy for this would be to set apart, say 8-chain wide, droving roads, with areas at certain distances, solely for travelling stock, and to have them securely enclosed and placed under caretakers. To meet the expense attached to such a proposal a small charge could be made on all stock using these reserves—the stock in the outlying districts being charged at a reduced rate.

The Stock Boards Council of Advice have taken up this matter with a view to the stock traffic and the reserves being placed on a more satisfactory footing.

Marking

Marking of Travelling Stock and Camping Reserves.

Fair progress has been made with regard to the marking of travelling-stock and camping reserves, the system of which is shown as Appendix K, there being at present about 1,380 miles surveyed and about 100 miles in course of survey. The routes marked are:—

1. From Boggabilla, *via* Yetman, Warialda, and Cobbadah, to Breeza.
2. From Moree, *via* Millie, Narrabri, Boggabri, Breeza, and the Liverpool Range, to the Bulga Mountains.
3. From Walgett, *via* Coonamble and Mendooran, to Uarbry.
4. From Coolah, *via* Uarbry, to Rylstone.
5. That portion passing through Terry-hie-hie Holding.
6. From Boggabri, *via* Turrabeile or Cox's Creek, to Coolah.
7. Mungundi to Moree.
8. Along the Mara Creek from the Barwon River upwards.
9. Along the Bogan to travelling stock reserve on the Murda Creek.
10. From Breealong to Dubbo.

In course of marking:—

That from Jennings to Tamworth.

With a view of making these surveys of practical benefit to drovers, stock-owners, and others, lithographs are being prepared showing sections of the roads in lengths of between 20 and 30 miles.

Lithographs of the roads, Boggabilla to Cobbadah, in six (6) sections; Moree to Cobbadah, *via* Gurley Holding, in one (1) section; Walgett to Uarbry, in five (5) sections; and Liverpool Range to Putty, in five (5) sections, are now on sale at the Head Office, and also at the local Stock Offices, at 2s. per section. These Lithos can be obtained at the Lands Office, Sydney.

New Stock Roads required.

In fourteen districts new roads are required for travelling stock, and to obtain these action has been already taken in five districts.

New Stock Reserves required.

In thirteen districts new reserves and alterations of existing ones for travelling stock are required. In fifty-two districts there are sufficient reserves; but in a great many cases the reserves are under annual lease, and are, therefore, kept very bare of feed.

New Wells, Tanks, or Dams.

In twenty-two districts the inspectors report that new wells, tanks, or dams should be constructed by the Government at places which they indicate.

REGISTRATION OF HORSE AND CATTLE BRANDS.

Brands registered.

The number of horse and cattle brands registered up to 31st December, 1897, was 78,203. The number of brands registered during the year 1897 was—Horse brands (alone), 194; cattle brands (alone), 385; and horse and cattle brands, 940; making a total of 1,519.

This shows a decrease of 67 in the total number of brands registered during the year as compared with 1896. There is also a decrease in the number of brands transferred and cancelled.

Brands transferred.

The brands registered during the year 1897 as transferred were—Horse brands, 18; cattle brands, 27; horse and cattle brands, 90; total, 135—being a decrease of 8 on previous year.

Brands cancelled.

The brands cancelled (horse and cattle) in 1897 were 165.

Addresses changed.

The number of addresses of owners changed in 1897 was 75.

Compliance with the Act.

In all the districts the provisions relating to registration and the other requirements of the Act are reported as being fairly carried out.

Benefits of the Act.

The inspectors, in alluding to the benefits of the Act, report that it prevents duffing, stock-stealing, facilitates identification, assists in recovering lost stock, and otherwise is a great convenience and protection to stock-owners.

In accordance with the arrangement come to by the Ministers of Agriculture for the several Colonies, the draft of a Registration of Brands Bill has now been framed, and copies have been forwarded to the other Colonies for consideration; copies have also been submitted to the Council of Advice, and to the Pastures Boards for any remarks they have to make. Explanations of the provisions of the Bill will be found under Appendix K.

POUNDS.

POUNDS.

Number and Inspection.

At the end of the year there were 265 pounds in operation in the Colony, 35 have been closed for want of poundkeepers, and there are sites set aside for the establishment of 174 more as occasion requires. The whole of the pounds are inspected periodically by the Stock Inspectors.

State of Yards.

Forty-three of the pound-yards are reported to be old; some require renewing, being unfit for the safe custody of stock; while others need repairs. The remainder are said to be in a fair and good condition.

Keeping and Depasturing Pound Stock.

The provision for the proper sustenance of impounded stock, which has to be made by the Poundkeeper at his own expense, according to the reports received, is satisfactory. As a rule, poundkeepers have now paddocks for the stock.

Management of Pounds.

The poundkeepers are reported to be performing their duties, upon the whole, in a satisfactory manner, and the appointment of inspectors of stock as inspectors of pounds has had a very beneficial effect.

NOXIOUS ANIMALS.

The Districts in which the Pastures and Stock Protection Act is in force.

The Act has been brought into operation in all the districts, and during the year work has been done to the extent shown in Appendices L and M.

Receipts and Expenditure under the Act.

The amount of assessment paid by stock-owners in 1897 was £35,235 3s. 8d.; and the amount expended £40,340 13s. 11d. Seven districts are reported to be in debt to the amount of £635 8s. 10d.

In four districts full rates were levied, in fifty-seven districts less than full rates, while in four districts no rates whatever were levied.

During the year the bonuses paid by the Boards for scalps ranged as follows:—For kangaroos, from 1½d. to 6d.; kangaroo rats, ½d. to 3d.; wombats, 6d.; wallaby, from 1d. to 3d.; paddymelon, from 1d. to 3d.; bandicoot, ¼d. to 3d.; hares, from 1d. to 6d.; native dogs, from 5s. to 40s.; pups, 2s. 6d. to 15s.; opossums, ¼d.; wild pigs, 3d. to 6d.; eagle-hawks, 2d. to 2s. 6d.; emus, 6d.; crows, ½d. to 6d.; foxes, 5s. and 30s.; and flying-foxes, 1d.

Increase and Decrease.

Kangaroos are reported to be increasing in eleven districts, wallabies in fifteen districts, native dogs in fourteen districts, hares in fourteen districts, and wild pigs in six districts. In twenty-five districts kangaroos are reported to be decreasing, wallabies in twenty districts, native dogs in seventeen districts, hares in fifteen districts, and wild pigs in six districts.

Number destroyed.

The number of kangaroos destroyed during the past year was 27,422; of kangaroo rats, 238,822; of wallabies, 1,118,473; of wombats, 318; of bandicoots, 800; of paddymelons, 198,043; of wild pigs, 9,524; of hares, 599,595; of foxes, 532; of native dogs, 13,264; of opossums, 3,702; of eagle-hawks, 6,502; of crows, 52,682; of emus, 1,575.

Steps taken for their destruction.

In the majority of the districts, hunting with dogs, drives, shooting, trapping, and poison have been adopted with satisfactory results. In forty-two districts poison has been used, mostly for dogs, with fair to best results, and from eight districts it is reported that the results have not been satisfactory, the dogs being too cunning to take baits.

AMENDMENTS SUGGESTED IN THE ACT BY THE BOARDS.

The agitation for the passing of the Stock and Pastures Bill still continues, and among other amendments in the law asked for it is suggested that uniform rates of assessment and bonuses should be fixed; that bonus be paid for rabbit scalps; that all assessment be paid into a general fund; that the Government should contribute a higher rate of subsidy to the funds of the Boards; that Section 6 of the Pastures and Stock Protection Act Amendment Act of 1881 be amended; that rabbits be declared noxious animals; that the Boards should have the administration of the Rabbit Act; and that a measure should be passed dealing with noxious weeds and plants. Owners should be compelled to lay poison for noxious animals; triennial elections of directors; compulsory bonus for all noxious animals.

LOSSES FROM NATIVE AND TAME DOGS.

The losses through native dogs for the year are estimated at 172,571 sheep, valued at £39,164; and from tame dogs 78,901 sheep, valued at £18,503; making a total loss of £57,667. A stricter enforcement of the law with respect to stray dogs, and the registration of dogs, are urgently required.

COMMONS.

COMMONS.

There are now 353 Commons in the Colony, the average acreage of which is about 4,000 each.

Number of Commoners, Stock, &c.

The average number of Commoners to each Common is estimated at ninety, and the average number of stock kept on each Common at 150.

Many of the Commons are unfenced, consequently are trespassed upon by travelling and other stock.

MISCELLANEOUS.

Cultivated Grasses.

In thirty-two districts cultivated grasses have been sown for pasture during the year, the most successful being lucerne, prairie, rye grass, and Burnett grass.

Number and Division of Runs.

The number of open or unenclosed runs in the Colony is 3,848; the number enclosed is 39,817; the number partially sub-divided is 15,359; and the number properly sub-divided is 22,767.

Improvements, Fencing, Dams, Tanks, and Wells.

The number of miles of fencing throughout the Colony is estimated as follows:—728,925 miles without wire netting, at an average cost of (say) £37 6s. per mile, amounting to £27,194,652, and 44,868 miles with wire netting, average cost at (say) £66 7s. per mile, amounting to (say) £2,977,150.

The number of dams used for stock purposes is estimated at 52,919, at an average cost of (say) £49 19s. 6d.; number of tanks, 50,105, at an average cost of £152 11s. 6d. each; and the number of wells used is estimated at 8,885, at an average cost of £105 7s. 6d. each.

Cost of fencing, £30,171,802; cost of dams, £2,644,637; cost of tanks, £7,644,641; cost of wells, £936,244; making a total of £41,397,324, as representing the amount expended by way of improvements, &c.

Plants and Weeds.

Prevalence.

In eleven districts *trefoil burr* grows to a very large extent; in nine districts, to a considerable extent; in twenty-two districts, to a slight extent; and in twenty-three districts there is none reported.

In thirty-four districts *variegated thistle* is reported to a slight extent; in nine, to a considerable extent; in four, to a very large extent; and eighteen districts are reported as free from it.

In thirty-one districts *black thistle* is reported to a slight extent; in eleven, to a considerable extent; in four districts, to a very large extent; and nineteen districts are reported to be free from it.

In five districts the land is reported as being infested to a very large extent with *Bathurst burr*; in fifteen districts, to a considerable extent; in thirty-four districts, to a slight extent; and in eleven districts the land is not infested.

In twenty-seven districts other noxious weeds grow to a slight extent; in eleven districts, to a considerable extent; in eleven districts, to a very large extent; and in sixteen districts there is none reported.

Legislation for Noxious Weeds.

Legislation is urgently required for dealing with noxious weeds and plants, more especially the Bathurst burr, the prevalence of which is inflicting very serious loss on travelling stock. A Bill has been prepared by the Minister for Lands to deal with the matter.

Cost of clearing Commons, Reserves, &c., of Weeds.

The cost of clearing the Commons of noxious weeds throughout the Colony is estimated by inspectors at £23,830; the police paddocks, £2,022; the travelling stock reserves and driving roads at £117,226; amounting in all to (say) £143,077.

PREVENTION OF SCAB IN SHEEP ACCOUNT.

A detailed statement of receipts and expenditure by the Department in connection with the above Fund for year 1897 will be found in Appendix N hereto, and will be published annually in the same form.

For statement of the salaries paid to the different inspectors from the above account see Appendix O.

DISEASES IN STOCK IN THE UNITED KINGDOM.

It will be seen by tabulated statement under Appendix P that there was a very considerable decrease during the year in infectious and contagious diseases in Great Britain and Ireland.

The following is a Statement of the Boiling-down, Chilling, Freezing, and Preserving Works in the Colony and of their Capacity, and the Work done during 1897.

Name of Establishment	Boiling.		Chilling.		Freezing.		Preserving.		Sundries.	Remarks								
	Capacity † diem.	Number treated.																
	Cattle or Sheep.																	
Aberdeen—Australian Chilling and Freezing Co. (Limited)	300	3,000	99	5,326	200	2,500	1,315	1,396	125	2,000	2,322	169,825	150	2,000	506	15,720		
Albury—Meat Works (Dundas & Co.)	..	2,000	..	32,000	..	..	..	..	..	..	..	..	50	800	50	12,000		
Barham—Boiling-down	10	1,000	..	4,500	..	..	..	..	..	..	..	..	..	..	..	..		Closed up ; no stock.
Bathurst—Hereford Estate Boiling-down (Cobb & Co.)	50	500	..	7,458	..	..	..	..	..	..	..	..	..	..	..	..
Do Alloway Bank do (J. J. Sullivan)	25	300	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bourke—Meat Preserving Co. (Limited)	150	2,500	3,928	88,232	50	1,000	692	33,524	..	..	..	..	150	2,500	3,928	88,232		
Carrathool—Stock Owners Company of N.S. Wales (Limited)	..	2,000	..	..	..	1,300	..	..	..	..	..	..	..	..	..	..
Cooma—Bunyan Boiling-down Works	..	2,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Not working.
Do Middle Flat do do	..	600	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Corowa—Boiling-down Works (Limited)	..	900	..	18,319	..	..	..	..	..	..	..	..	..	..	..	..
Darling Harbour—Geddes, Birt, & Company	..	..	..	..	400	3,500	no record.	..	130	2,000	2,088	169,534	..	..	..	..
Deniliquin—Riverina Frozen Meat Company	..	2,000	..	7,561	..	..	..	..	..	1,500	..	111,216	..	1,500	..	..
Do Oddy & Sons' Boiling-down Works	..	2,000	..	18,165	..	..	..	..	..	..	..	..	..	..	..	..
Do H. Ricketson's do do	..	1,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do J. M. Carew's do do	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dubbo—Refrigerating and Boiling-down Co. (Limited)	100	1,500	..	..	60	900	..	..	..	..	..	..	..	..	..	..		Not working.
Euston Station—Boiling-down Works	..	300	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Forbes—Stock Owners Company of N.S. Wales (Limited)	..	2,500	..	..	..	1,350	..	..	..	..	..	..	..	..	..	..		Not working.
Gunnedah—Pastoral Finance Company, Sydney	100	2,000	..	52,577	30	1,200	..	14,785	..	..	..	..	..	..	..	..
Hay—Boiling-down Works	..	2,500	..	16,000	..	..	..	..	..	..	..	..	..	..	..	..
Menindie—Boiling-down, Freezing, and Meat Preserving Company (Limited), 5-Mile Point.	300	3,500	..	..	60	600	88	2,700	..	..	..	..	100	2,000	88	2,700		Drought stopped work.
Moama—G. G. Cloughton's Boiling-down Works	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do John Stokes do do	..	1,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Molong—Beri Boiling-down Works	40	600	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Do Burrawang Boiling-down Works	20	300	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Not working.
Do Buckinbah do do	13	200	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Narrandera—Riverina Chilled Meat Works	30	2,000	..	..	30	800	..	..	..	..	..	..	..	..	..	..		Works idle through low prices in England.
Narrabri—Namoi Refrigerating, Preserving, and Boiling-down Company's Works.	150	2,000	..	62,000	50	500	..	..	..	..	..	..	..	..	..	..
Narrabri—Geddes, Birt, & Co.	70	1,400	..	62,155	35	600	..	..	..	..	..	..	40	450	..	..
North Sydney—Pastoral Finance Co.	..	..	..	..	..	..	..	..	..	2,000	..	224,327	..	..	..	..
Nyngan—Stock Owners Company of N.S. Wales (Limited)	150	2,000	..	..	75	900	..	..	..	..	..	..	..	..	..	..
Ranornie—Australian Meat Works	120	1,400	5,443	..	..	..	..	..	..	..	..	..	120	1,400	9,834	..		
Sydney—Meat Preserving Company	..	..	..	..	..	..	..	..	..	..	..	..	..	7,000	6,358	688,926		
Do Fresh Food and Ice Company	..	..	..	..	..	1,500	..	..	..	3,000	2,267	358,473	..	..	..	..	21,176 pieces matton, 8,247 grs. beef, and 1,348,735 lbs. ships provisions.	Large quantities of milk, butter, fish, poultry, &c., chilled and frozen.
Tenterfield—Geddes, Birt, & Co.	55	500	31	2,023	55	600	892	6,581	..	..	..	..	..	..	..	..
Towrang—W. H. Wheatley's Boiling-down Works	50	750	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wagga Wagga—Lake Albert do do	80	800	..	10,060	..	..	..	..	..	..	..	..	..	..	..	..
Wentworth—Lake Victoria do do	..	5,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Works not in use.
Werris Creek—Stock Owners Company of N.S. Wales (Limited)	100	2,000	31	55,966	50	900	319	42,229	..	..	..	..	..	..	..	1,000		
Wilcannia—Menindie Boiling-down, Freezing, and Meat Preserving Company's Branch.	..	2,500	..	..	..	..	..	..	..	..	..	..	..	500	..	..		Closed ; no stock.
Young and District—Chilled Meat and Produce Storage and Export Co. (Ltd.)	200	2,000	..	..	400	26	..	..	..	..	..	..	..	..	..	..
Young—Pastoral Finance Co., North Sydney	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Total Capacity of the Works in the Colony.

Capacity for Boiling per diem—2,113 cattle or 56,550 sheep.	Capacity for Boiling per annum—633,900 cattle or 16,965,000 sheep.
Do Chilling do 1,495 do 18,076 do	Do Chilling do 448,500 do 5,422,800 do
Do Freezing do 255 do 10,500 do	Do Freezing do 76,500 do 3,150,000 do
Do Preserving do 610 do 18,150 do	Do Preserving do 183,000 do 5,445,000 do

THE LIVE STOCK EXPORT TRADE.

There appears no prospect of a revival of the live stock trade at the present prices at Home, on account of the heavy expense of freight and forage, and the risk of loss on the voyage.

EXPORT OF CHILLED MEAT TO LONDON.

Some further attempts have been made during the year to send meat in a chilled state to England, but I regret to say that none of them have been attended with success.

DEFROSTING OF MEAT.

While this process is still carried on, and, apparently, with good results where the meat is prime, the practice does not seem to be extending.

This is one of the matters which the Export Board should, it is thought, take up, now that they have command of Refrigeration, with the view to ascertain how defrosting can be best and most economically carried out, and whether it would pay to defrost our meat before placing it on the London and other markets.

THE EXPORT TRADE IN AUSTRALIAN FROZEN MUTTON.

Our export trade in frozen mutton in 1897 has again been anything but a profitable one.

This has arisen from several causes:—

- (1.) The continued increase in the quantity of frozen mutton placed on the markets of the United Kingdom. The number of carcasses imported in 1896 was 5,647,418, while in 1897 there were landed 6,184,964, being an increase of some 550,000 carcasses, and causing glutted markets and low prices. This increase came from New Zealand, to the extent of about 500,000 carcasses, and from South America of, say, 300,000, while there were 250,000 less from Australia.
- (2.) The effect of the engineers' and other strikes in Great Britain and Ireland.
- (3.) The effect of the drought in the Australian Colonies on the quality of the mutton.
- (4.) The damaged condition in which the mutton frequently arrived.
- (5.) The fall in the price of second-class New Zealand mutton.

While, again, this is the case, the disheartening difference between the prices of Australian mutton and New Zealand still continues, as will be gathered from the following statements of the average annual prices of the two descriptions of mutton, compiled from the figures appearing in Messrs. W. Wedell & Coy.'s last annual review of the frozen meat trade:—

1895, January.—	New Zealand mutton,	3 $\frac{7}{8}$ d.	;	Australian,	2 $\frac{3}{8}$ d.	;	difference per lb.,	1 $\frac{1}{2}$ d.
1896, " "	" "	4 $\frac{3}{8}$ d.	;	" "	2 $\frac{3}{8}$ d.	;	" "	2d.
1897, " "	" "	3 $\frac{7}{8}$ d.	;	" "	2 $\frac{3}{8}$ d.	;	" "	1 $\frac{1}{2}$ d.
1897, December.—	" "	3 $\frac{3}{8}$ d.	;	" "	2 $\frac{3}{8}$ d.	;	" "	$\frac{7}{8}$ d.

These figures show that, taking the average annual prices of New Zealand and Australian mutton, there is more than 1 $\frac{1}{2}$ d. per lb. difference in favour of the New Zealand; and recent London cable quotations in the daily press give Canterbury cross-breds as worth 3 $\frac{1}{8}$ d. per lb.; Dunedin and Southlands, 3 $\frac{3}{8}$ d.; and North Island, 3d.; while Australian mutton (cross-bred or Merino wethers) is quoted at 2 $\frac{3}{8}$ d. per lb. for heavy (over 50 lb.), and the same price is quoted for light (under 50 lb.).

Some years back there was perhaps reason for this great difference, as the Australian sheep were then almost wholly merinos; but as there is now a great deal of cross-bred mutton shipped from this Colony and Victoria, the same difference ought not to exist.

It still, however, does so; and this is only what is to be expected so long as our cross-breds are mixed and sold with the merinos in the London and other markets. While they are dealt with in this way, and no separate quotation given of the prices made by our cross-breds in these markets, there is nothing to show our owners that they do any better in breeding cross-breds than merinos; and all the time the New Zealand breeders are making 1d. per lb. more for their sheep (which are, as a rule, cross-breds) than we are.

As this is the case, it is most essential that our sheepowners who are breeding or intend breeding cross-breds should learn the reason why the difference exists; and this, again, they can never really do unless the Australian cross-breds are sold as such by themselves, and their defects, as compared with the New Zealand sheep, clearly pointed out.

I would, therefore, suggest that the attention of the companies now freezing and shipping on owners' account should be called to the matter, and that they be invited, in the interest of our owners who are breeding cross-breds, and of that of the Colony generally, to put the cross-breds on the market as such, get a report in what way they are defective, and thus obtain the information which our breeders of cross-breds so urgently require to enable them to compete successfully with New Zealand.

Although there is little prospect of any decrease in the importation of frozen mutton into the United Kingdom, and of relief coming to our sheepowners in that way, still it is believed that, with greater care in breeding, fattening, and slaughtering our sheep, and especially in breeding a larger number of

of cross-breds where the country and circumstances are at all suitable, and making them really prime at an early age, better prices will be obtained, and that our trade in frozen meat will increase and extend. The fact that an increased percentage of Australian mutton is now disposed of in the provinces without passing through the Smithfield market is also encouraging.

The following *pro formá* account sales of a prime fat 20 months old wether and a prime 4½ months old milk cross-bred lamb is published for the information of our breeders of cross-breds:—

Cross-bred Wether.

	£	s.	d.
1 carcase mutton, 56 lb., at 2¼d. per lb.	0	12	10
£ s. d.			
Charges.—Receiving at yards, dues, driving, slaughtering, &c.	0	0	9
„ Freezing, bagging, branding, grading @ ¼d. per lb.	0	1	2
„ Insurance at 60s. per cent.	0	0	5
„ Inspection dues, 2s. per 100 carcasses	0	0	0¼
„ Freight (actual) current, ½d. per lb.	0	2	4
„ London charges, say, ¼d. per lb.	0	1	2
	0	5	10¼
Add skin, tongue, fat, say	0	6	11¾
	0	3	5¼
	0	10	5

Cross-bred Lamb.

1 lamb, 32 lb., @ 3½d. per lb.... ..	0	9	4
Charges as above—Receiving, slaughtering, freezing, shipping, insurance, freight, &c., &c.	0	3	11
	0	5	5
Add skin, fat, and tongue	0	2	6
	0	7	11

Notes by the Chief Inspector of Stock on the Report by Messrs. Wedell & Co., London, on the Sheep exhibited at Sheep Breeders' Association Show in July, 1897, for the Export Prize, and consigned to them through the Pastoral Finance Company of Sydney.

This report practically confirms that kindly obtained by the Colonial Consignment and Distributing Company on the sheep exhibited at the Metropolitan Show of 1897, so far as regards the most desirable weights of sheep for the London market, *i.e.*, that the sheep exhibited at our shows for export are a good deal too heavy, and some of them too fat; and if it had not been for the course adopted by Messrs. Wedell & Co. with the sheep, of storing them for about four months, till Christmas, when big, over-fat sheep are in demand for display in the butchers' shops, the prices realised would not have been nearly so good as they were.

While, however, the agents thus looked well after their constituents' interest in taking that course, they, to a considerable extent, defeated the object for which the prizes were offered, and prevented the test from being carried out as intended through not disposing of the sheep on arrival in the ordinary market, and keeping them for a market which only occurs once in twelve months.

As they felt called upon to deal with the sheep in that way, Messrs. Wedell & Co., with the view to our owners not being misled as to the proper class of sheep to ship for the London market, have taken the trouble to give a double quotation—that of the special price they realised in the Christmas market, and the price which they would have brought had they been offered at any other time than at Christmas, *i.e.*, their intrinsic value.

The accompanying tabulated statements, A, B, C, show how this stands, and the substance of Messrs. Wedell & Co.'s remarks on the several lots given in these statements show also how far the sheep are suitable for the Home markets, and the reasons why they are so. They omit, however, two very material pieces of information, so far as the Breeder is concerned—*i.e.*, the most saleable age and most saleable weight at which the sheep should be put on the market. No doubt it can be gathered from the Messrs. Wedell & Co.'s remarks generally, and particularly on lots 15 and 16 of the cross-breds (which averaged more than 70 lb.), that when sheep exceed a certain weight and fatness, their doing so entails a reduction in the price per pound; but their remarks convey no definite instructions on these important points, such as were given in the elaborate and valuable report furnished by the Colonial Consignment and Distributing Company, and since published and distributed throughout the Colony on the sheep shown at the last Metropolitan Exhibition, including those from the Experimental Farm, Bathurst. That report, which conveys the opinions of six leading meat experts in London, gives very pointed directions in regard to these matters, and shows owners how very important it is that they put their cross-breds on the market at the right age and weight, as well as in prime condition. In order to still further impress on owners the necessity for attending to the instructions given by these experts, backed as they are by the report here under consideration from Messrs. Wedell & Co., the following comparative statements of the average intrinsic value of the five different crosses from the Bathurst Farm exhibited at the Metropolitan Show of 1897, and of the sheep from the Sheepbreeders' Show referred to in that report are here given.

A.

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A.
MERINO WETHERS.

No.	Owner.	No. of Sheep.	Value of Skin and Fat.		Average Weight of Sheep.		Value, Charges, and Nett Proceeds.								Difference.	Remarks.
							Intrinsic Value.		Sale.		Charges and Expenses.	Nett proceeds per Sheep.				
							Per lb.	Amount.	Price per lb.	Amount.		Price realised.	Intrinsic Value.			
														s. d.		
1	Hon. R. H. Roberts	10	5 6½	54 9	2½	11 11½	3½	15 11	7 2½	14 2½	10 3	3 11½	Good useful quality.			
2	Do	2	5 6½	51 8	2½	11 3½	2½	12 4	7 2½	10 8	9 7½	1 0½	Fairly good, but rather leggy; useful weights.			
3	Do	10	4 5½	52 0	2½	11 4½	2½ to 3	12 8½	7 2½	9 11½	8 7½	1 4½	Leggy, though well covered; irregular weights.			
4	L. & E. Forsyth	10	5 0½	53 5	2½ to 2½	10 10	2½ to 2½	12 4½	7 2½	10 2½	8 8½	1 6½	Very ordinary quality; not a good lot.			
5	C. Merino	10	5 11	67 9	2½	14 1	2½ to 2½	15 10	8 11½	12 9	11 0	1 9	Much too fat and heavy; not the sort for Smithfield.			
6	W. Merino	10	4 9½	54 6	2½ to 2½	12 2½	2½	12 5½	7 5½	9 9½	9 6½	0 3½	Good breed, well covered, useful lot; the best merinos.			
7	J. Robinson	10	5 8½	54 8	2½ to 2½	12 2½	2½ to 2½	12 10½	8 1½	10 5½	9 9½	0 8½	Useful lot, thick set, short-legged, well-covered sheep; very saleable.			
8	Ryder Bros.	10	5 3	47 8	2½	9 10½	2½ to 3	11 7½	6 8½	10 2	8 5½	1 8½	Only fair quality.			
	Leitchfield Bros.	10	5 10	55 10	2½	11 7	2½	12 9	7 6½	11 0½	9 10½	1 2	Fair lot of ordinary merinos.			

B.
CROSS-BRED WETHERS.

No.	Owner.	No. of Sheep.	Value of Skin and Fat.		Average Weight of Sheep.		Value, Charges, and Nett Proceeds.								Difference.	Remarks.
							Intrinsic Value.		Sale.		Charges and Expenses.	Nett proceeds per Sheep.				
							Per lb.	Amount.	Price per lb.	Amount.		Price realised.	Intrinsic Value.			
														s. d.		
10	J. Robinson	10	6 0½	70 6½	2½ to 2½	15 0½	2½ to 3	17 2½	8 7½	14 8½	12 6	2 2½	Fairly suitable for cutting; rather leggy and too heavy.			
11	J. Christie	10	3 9½	44 14½	2½ to 2½	9 7	2½	10 9	6 3½	8 3½	7 1½	1 2	Uneven—some leggy and plain, and merino type.			
12	Browne Bros.	10	3 11½	47 0	2½	10 3½	2½ to 3	11 3½	6 8½	8 6½	7 6½	11½	Will usually sell well in London, but not finished.			
13	Do	2	3 11½	43 8	2½ to 2½	9 3½	2½	10 8	6 6½	8 1	6 8½	1 4½	Too long and plain about shoulders and legs; too like merinos.			
14	A. H. Wright	10	5 6	64 9½	2½	14 1½	2½ to 2½	15 1	8 1½	12 5½	11 5½	11½	By no means good type; lacking quality and condition.			
15	G. H. Scales	10	5 2½	71 6½	2½	14 10½	2½ to 3	17 5½	9 4	13 4½	10 9	2 7½	Fair quality; too heavy for country and also for town; fairly useful for cutting.			
16	Do	2	5 2½	76 0	2½	15 0½	2½	18 2½	10 2	13 3	10 1	3 2	Too fat and heavy. Such sheep should not be shipped.			
17	W. Robinson	9	6 6½	74 10½	2½	16 4	2½	17 1½	9 9½	13 10½	13 1½	9½	Well bred, short-legged, good backs and loins and well covered, but too fat for prime.			
18	Litchfield Bros.	10	4 5½	59 0	2½ to 2½	13 2½	2½ to 3	14 5	7 6½	11 4	10 1½	1 2½	Good useful lot of short-legged, well-covered sheep, with good backs and loins; very suitable.			

C.
CROSS-BRED LAMBS.

No.	Owner.	No. of Lambs.	Value of Skin and Fat.		Average Weight of Lambs.		Value, Charges, and Nett Proceeds.								Difference.	Remarks.
							Intrinsic Value.		Sale.		Charges and Expenses.	Nett proceeds per Lamb.				
							Per lb.	Amount.	Price per lb.	Amount.		Price realised.	Intrinsic Value.			
														s. d.		
2	L. & E. Forsyth	10	5 3	49 3	3	12 3½	3½	13 4	6 9½	11 9½	10 8½	1 0½	Good, useful, short-legged teds; much too heavy.			
3	J. D. Hill	10	3 5	40 3	4	13 4½	3 to 5	14 4½	5 7½	12 2	11 2½	11½	Mostly short-legged, well-bred Downs; some inferior.			
4	A. H. Wright	10	4 3	37 4½	4	12 5½	4½	13 11½	5 2	13 0½	11 6½	1 6½	Very useful, but inclined to be teggy; very well shaped and "well up."			
5	J. Robinson	10	3 11½	35 6½	3½ to 4	11 4½	4	11 9½	4 11	10 9½	10 5	4½	Mixed lot, partly useful; others plain and teggy.			

MERINO LAMBS.

1	D. & W. Sellar	10	4 11	39 9½	3½ to 3½	11 1½	3½	12 4½	5 8	11 7½	10 4½	1 3	Plain unfinished, teggy, dark inside legs; not a brilliant lot.
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Cross-breeds from Bathurst Farm and from Sheep-breeders' Show compared.

Bathurst Farm Cross-breeds.—These sheep were 17 months old, and averaged 59 lb. 9 oz. Their average intrinsic value, according to the London experts, was 3½d. per lb., or per sheep, 12s. 11¼d.

Cross-breeds from Sheepbreeders' Show.—These sheep, which were, it is believed with one exception, Lincoln and Merino crosses, were from 2 years to 2 years and 3 months old, and averaged 61 lb. 5½ oz., while their average intrinsic value, according to Messrs. Wedell & Co., was 2¾d. per lb., or per sheep, 9s. 11d.; showing a difference in favour of Bathurst Farm sheep of 3s.

This shows that the Bathurst Farm sheep were very much more suitable for the London market than those exhibited at the Sheepbreeders' Association Show, and they were so for the following reasons:—(1) They were younger sheep; (2) they were more suitable weights; (3) they were better shapes; (4) they were better quality of mutton.

(1.) *The Age.*—In the London market the younger the mutton is, provided it is in prime condition, and not too fat, the better price it brings, because it is tender and juicy. In confirmation of this, Mr. J. G. Gray, Kentucky, Corowa, last year netted 10s. 2d. for 12 to 13 months old cross-bred Tegs, averaging 41½ lb., which were slaughtered and frozen at Deniliquin, and shipped to London on his own account. They made 3-98d. per lb. in the market.

(2.) *The Weight.*—What purchasers in the Flemington market, as a rule, mainly look for is plenty of weight, and at the price they usually pay, the larger and fatter the sheep, the better it suits them. It is different in the London market; there the shapes of the sheep and the quality of the mutton are everything. Although the average weight of the Bathurst Farm sheep was a moderate one, some of them were considerably over that weight, and in that way made the intrinsic value less than it would otherwise have been, especially as the majority of the London experts stated that they preferred an average of 55 lb.; that is, sheep from 52 to 58 lb.

(3.) *The Shapes.*—The fact that two out of the five crosses were by South and Shropshire Down rams, and the three by a Cheviot, which are the very best shaped mutton sheep, accounts for the superiority of their shapes. But, so far as regards shapes, there is no doubt the second cross, provided that the ram put to the first cross is one of the breeds here mentioned, would produce the best shaped sheep for the London market, as well as a high quality of mutton.

The continued cry with the London salesmen is to get rid of the sharp shoulder, narrow, poorly-covered loins, and scraggy leg of the merino.

This is all right, but, of course, the question of how far this would suit the wool, has to be worked out and considered.

(4.) *The Quality of the Mutton.*—There can be no question but the quality of the majority of the Bathurst Farm crosses was much higher than that of the sheep exhibited at the last Sheep-breeder's Association Show.

Next, perhaps, to Welsh mutton, the Cheviot brings the highest price in the London market; the Southdown the next; and the Shropshire the next; while the Romney Marsh was also fairly appreciated. The Lincoln cross (of which the sheep from the sheep-breeders' Show almost wholly consisted) was the least appreciated of any of the crosses.

CROSS-BREDS ON THE BATHURST EXPERIMENTAL FARM.

An exhibit of eighty lambs from these cross-breeds was shown at the Metropolitan Exhibition as non-competitive made up of eight different crosses, viz., Southdown, Shropshire, Border Leicester, Romney Marsh, Dorset Horn, English Leicester, Lincoln, and Cheviot, from Merino ewes, and were between 4 and 5 months old. They were shown at a disadvantage; for, through alterations which were being carried out at the Farm, the ewes had to be sent away for pasture which latterly failed, and the lambs were not in a condition to ship. Still, they have, even in this state, done a good deal towards the settlement of one of the principal questions for which these experiments were initiated—which is the best cross for the production of fat lambs for export—for it has shown which was the best breed under an unintentionally severe test. Two lambs were selected from each of the different crosses and killed, and the average weight of the two lambs of each cross will be found in the appended statement. It will be seen from this statement that the Shropshire and Southdown crosses make the best shaped, best fleshed, and earliest maturing lambs. While this is the case there is no question as regards quality of meat and the value of the lambs in the London market. These "Down" crosses stand highest, and will bring the best prices both in the city and provinces. Lambs in the English markets must be milk lambs, not more than 5 months old, and from 32 lb. to 38 lb., or perhaps 40 lb. These conditions, well-bred Southdowns and Shropshire cross lambs would on good feed readily fulfil, and if the natural pasture is supplemented by giving the ewes a run now and then on lucerne or some other cultivated food, the lambs of these crosses would be prime at 4 months, and of the weights mentioned.

Statement of average weight of crosses:—

	lb.	oz.
Southdown and Merino	35	0
Shropshire Down and Merino	33	8
Border Leicester and Merino	31	4
Romney Marsh and Merino	30	8
Dorset Horn and Merino... ..	30	0
English Leicester and Merino	29	12
Lincoln and Merino	29	4
Cheviot and Merino	26	12

THE STOCK BOARDS COUNCIL OF ADVICE.

This council which consists of nine members, three of which are selected from each of the land divisions of the colony, is doing useful work. It has had under consideration many very important matters, and although not much progress has been made in obtaining the amendment of the Acts which they have been urging on the Government, the opinions of the Boards on these questions have been ascertained and a great deal of valuable materials have been collected which will be turned to account in preparing the measures which are being framed to carry out these amendments, and will be ready to be submitted to Parliament when the opportunity occurs; and there is no doubt that the experience and advice of its members will be of much assistance to the Department and the Minister.

The following are some of the matters which the Council of Advice have had under consideration:—

- (1.) The framing of rules for the guidance of the Council of Advice.
- (2.) The regulation and supervision of travelling stock and the imposition of travelling charges to be paid by the drover.
- (3.) The notification, management, and cancellation of travelling stock reserves, and placing them under the supervision of the Stock Boards.
- (4.) The notification and management of Public Watering Places.
- (5.) Amendment of the Sheep Acts, including assessment on large stock, eliminating the 40-mile limit, providing for bond for travelling charges, &c., &c.
- (6.) The amendment of the Pastures Act.
- (7.) The payment of a reasonable subsidy by the Government for the destruction of noxious animals.
- (8.) The prevention of stock stealing.
- (9.) The stricter enforcement of the Dog Act.
- (10.) Additional legislation for preventing the introduction of tick fever.
- (11.) The purchase of the secret of production of reliable vaccine of anthrax.
- (12.) The payment of 1s. per head on cattle sold at Homebush, to provide funds for compensating purchasers of stock which were found when slaughtered to be diseased.
- (13.) The disease and extent of disease which should make an animal or carcase liable to be condemned.
- (14.) The formation of the Stock Board Convention.

In addition to the advantages arising from the action of the Council in regard to the matters here alluded to, another most important benefit is accruing from these annual meetings of delegates and the election of the Council of Advice. Stockowners as a class are drawing closer together, and a spirit of union and co-operation is being fostered among them, which must result in their advantage and the good of the Colony; and if the proposed Stock Board Convention is formed, as it is believed it will be, these advantages will be still further increased and confirmed.

APPENDIX A.
RETURN of Stock in the several Sheep Districts.

Districts.	Year 1896.					Year 1897.				
	Acreage.	Horses.	Cattle.	Sheep.	Pigs.	Acreage.	Horses.	Cattle.	Sheep.	Pigs.
Albury	883,100	7,089	17,377	722,239	.....	851,876	7,106	16,405	619,661	.....
Armidale.....	3,295,908	13,049	101,788	1,361,337	.....	3,043,735	12,922	92,719	1,331,651	.....
Balranald	3,852,652	2,051	3,041	512,651	.....	3,513,495	1,746	3,149	386,384	.....
Bathurst	1,152,485	14,594	41,203	579,833	.....	1,498,896	14,974	36,021	511,330	.....
Berrima	282,278	4,011	28,174	46,729	.....	275,464	3,733	26,144	42,667	.....
Bombala	610,247	2,824	16,475	349,133	.....	667,110	2,928	19,791	424,408	.....
Bourke	8,445,026	7,728	15,139	1,965,735	.....	8,862,079	7,903	18,692	2,038,194	.....
Braidwood	415,115	4,804	36,753	63,094	.....	425,328	4,454	36,547	72,996	.....
Brewarrina	3,490,660	4,983	9,265	1,003,892	.....	3,270,433	4,516	7,979	1,019,181	.....
Broulee	306,271	3,139	29,584	928	.....	345,271	3,058	32,086	1,660	.....
Cannonbar	3,529,632	5,878	19,119	1,335,594	.....	2,973,348	5,319	17,962	1,310,018	.....
Carcoar	1,056,173	7,795	21,521	781,930	.....	1,010,129	6,567	18,760	729,544	.....
Casino	1,537,545	9,555	142,520	721	.....	1,611,837	10,131	149,980	897	.....
Cobar	6,691,328	3,043	7,646	1,007,253	.....	6,763,700	3,560	7,292	1,003,290	.....
Condobolin	4,765,511	4,777	8,947	1,278,802	.....	4,651,164	4,275	6,992	943,479	.....
Cooma	1,700,325	8,597	47,495	885,552	.....	1,674,085	8,617	49,784	808,577	.....
Coonabarabran	3,490,577	6,139	16,084	1,012,088	.....	3,493,194	6,056	14,406	942,461	.....
Coonamble	2,800,676	7,574	21,252	1,769,095	.....	2,775,064	6,991	18,313	1,733,478	.....
Corowa	793,783	4,653	7,613	651,843	.....	704,794	4,501	6,438	524,000	.....
Deniliquin	2,214,570	6,261	11,742	1,138,859	.....	2,196,705	5,433	9,703	980,981	.....
Denman	313,282	4,356	31,548	32,642	.....	311,305	4,328	28,127	32,302	.....
Dubbo	3,138,636	13,516	27,012	1,862,524	.....	2,955,521	11,787	24,668	1,559,880	.....
Eden	476,834	4,111	48,839	2,068	.....	573,300	4,354	56,239	3,056	.....
Forbes	2,732,596	11,022	27,460	1,604,086	.....	2,710,938	9,799	17,773	1,268,529	.....
Glen Innes	2,133,686	3,286	87,195	742,972	.....	2,343,586	13,573	90,278	725,740	.....
Goulburn	977,254	9,378	43,531	286,665	.....	971,500	8,531	44,401	291,508	.....
Grafton	853,782	15,556	72,171	1,756	.....	1,077,785	15,960	78,510	2,436	.....
Gundagai	1,102,823	9,245	43,923	927,769	.....	1,250,498	8,975	41,159	907,590	.....
Hay	4,378,739	6,462	7,854	1,491,389	.....	4,500,086	6,549	6,804	1,284,950	.....
Hillston	3,687,217	2,874	3,820	734,516	.....	3,717,616	2,946	3,812	671,691	.....
Hume	1,197,394	5,892	29,539	682,914	.....	1,197,806	5,633	24,799	577,125	.....
Ivanhoe	5,405,346	1,832	2,211	791,231	.....	5,445,661	1,619	2,176	608,573	.....
Jerilderie	1,244,287	4,750	5,150	806,100	.....	1,265,678	4,877	4,199	693,779	.....
Kiama	2,703,416	5,960	58,043	1,962	.....	316,195	6,629	58,270	1,933	.....
Maitland	679,553	16,994	77,704	3,870	.....	652,966	13,403	67,882	2,163	.....
Menindie	9,390,714	3,760	7,921	837,882	.....	9,373,464	3,527	7,020	669,759	.....
Merriwa	684,294	5,097	14,141	448,235	.....	673,484	4,636	12,076	418,432	.....
Milparinka	6,369,750	2,747	6,786	538,276	.....	7,404,314	3,021	5,595	591,233	.....
Molong	1,692,140	10,453	17,496	1,067,675	.....	1,651,523	9,554	15,119	928,057	.....
Moree	2,670,792	8,839	53,013	1,246,441	.....	2,894,741	8,601	46,888	1,311,966	.....
Moulamein	1,588,521	1,493	5,360	555,236	.....	1,598,300	1,449	3,660	436,687	.....
Mudgee	1,588,526	11,081	46,488	693,859	.....	1,544,197	11,536	4,008	648,385	.....
Murrurundi	832,365	8,032	36,514	503,044	.....	821,229	7,619	29,008	461,652	.....
Narrandera	2,816,307	5,438	14,678	1,284,235	.....	2,727,576	5,545	12,255	958,380	.....
Narrabri	1,276,441	5,487	17,960	667,657	.....	1,274,935	4,070	11,260	619,610	.....
Pictou	232,494	3,799	24,775	2,643	.....	222,775	4,065	24,128	4,283	.....
Pilliga	1,512,312	3,133	15,040	569,128	.....	1,367,019	2,606	7,249	503,754	.....
Port Macquarie	507,757	9,227	46,291	868	.....	565,121	9,561	52,150	708	.....
Port Stephens	599,163	7,402	48,317	1,166	.....	601,358	7,064	45,285	1,473	.....
Queanbeyan	919,568	4,427	24,393	485,554	.....	962,935	4,161	22,525	534,671	.....
Singleton	408,615	5,939	47,806	27,346	.....	466,843	6,389	41,612	36,761	.....
Sydney	212,530	21,090	19,950	6,500	.....	4,032,700	20,000	19,100	3,000	.....
Tamworth	4,032,620	25,861	95,393	2,602,060	.....	4,017,204	26,261	95,655	2,374,763	.....
Tenterfield	1,539,090	8,903	81,896	158,996	.....	1,620,181	8,305	88,473	147,427	.....
Tweed-Lismore	293,142	7,987	41,535	329	.....	303,329	8,348	50,728	94	.....
Urana	961,834	2,935	3,823	780,904	.....	1,010,128	3,193	3,112	671,666	.....
Wagga Wagga	2,701,063	13,322	34,839	1,601,998	.....	2,432,004	12,905	29,149	1,288,714	.....
Walgett	4,143,752	8,418	13,244	1,978,088	.....	4,608,693	7,812	12,230	1,901,243	.....
Wanaaring	5,743,275	1,932	4,008	753,393	.....	5,923,800	2,159	4,151	756,137	.....
Warialda	3,250,105	12,849	69,360	1,267,408	.....	3,453,000	12,709	76,483	1,319,761	.....
Wentworth	6,023,878	1,795	3,198	485,604	.....	5,943,126	1,736	2,673	355,213	.....
Wilcannia	10,026,057	4,642	8,195	1,063,077	.....	9,981,858	4,069	7,520	931,628	.....
Windsor	195,737	7,576	16,693	866	.....	183,138	6,953	15,394	1,061	.....
Yass	754,099	4,609	17,501	507,512	.....	793,011	4,346	13,426	494,826	.....
Young	2,155,995	12,035	38,237	1,763,038	.....	2,193,990	10,860	31,487	1,525,441	.....
Total	155,037,642	484,028	2,043,707	48,318,790	214,581	160,553,624	466,813	1,966,729	43,952,897	207,738

APPENDIX B.
INFLUENZA IN HORSES.

(By E. Stanley, F.R.C.V.S., Government Veterinarian.)

Character.

It is a contagious equine fever, due to germinal matter invading the system, producing disastrous changes in the blood, which interfere with nutrition, excite congestion, and occasionally inflammation of important organs or tissues.

The germs of this disease are always lurking about, and epidemics are due to exceptional climatic changes that have a lowering effect on the health of horses, and at the same time favour the vitality of the disease germs.

The worst cases are amongst hard-working horses in overcrowded sheds, with bad sanitary surroundings; next come fat horses; and the least susceptible are horses that are in good working condition, cleanly kept, and well cared for. If such have the disease at all, it is in a mild form, and they speedily recover.

Symptoms.

Symptoms.

In the onset, loss of appetite, drowsy headache, pain in the limbs, general weakness; in many cases the eyelids are swollen, tears trickle down the face; there may be discharge from the nostrils, and occasionally coughing; the eye will be found scarlet and orange colour, the tongue furred, breath offensive, the heart beats feebly but quick, the pulse is small and weak, the dung is soft, and the urine high-coloured; there is a general rise of the bodily temperature.

As the disease progresses the symptoms will depend on its course, which is very variable, as the numerous names given to the disease indicate. The vital forces in many cases overcome the toxic effects and excrete the poison from the system. It is to assist this process that we have recourse to treatment.

The Treatment.

This should consist of rest, pure air, shelter from sun, rain, or wind, bran mashes, and cut green food with drachm doses of chlorate of potash, carbonate of ammonia, or nitrate of potash given in the drinking water. If the case has been taken early enough, and the surroundings are good, the fever will abate, and recovery be complete in a very few days.

Unfortunately many horses are worked at the commencement of the illness; then they are completely knocked up, and they present a variety of bad symptoms, owing to the mischief being located in individual organs, such as those of respiration, or the bowels, liver, spleen, lymphatic glands, or cerebro-spinal system. The location can only be diagnosed by the educated veterinarian, and every case should be treated to suit the nature and stage of the illness. Dropsical swellings are a favourable indication, but time and patience must be allowed for recovery. No case is cured until the horse is playful at exercise.

APPENDIX C.

EPIZOOTIC OPHTHALMIA.

Nature and Treatment.

This affection is usually seen in several cattle or sheep about the same time in various paddocks in the same district. However, as the majority recover, little notice is taken of the disease in the early stages; but that is just the time when proper treatment (if it were possible to apply it) would be of the greatest benefit.

It is in the acute stage, when the inflammation is severe, the animal being almost blind, that treatment is attempted. Now, at this particular stage, much harm is done by injudicious treatment. Even yarding animals, unless done very carefully, will do more harm than good.

The eye is a very delicate, sensitive organ to deal with; therefore, nature is frequently the best restorer. She can be assisted by attending the animals' comfort, having food and water accessible to the nearly blind animals, keeping them perfectly undisturbed and in shady places.

It may happen that the animal becomes nearly blind in one eye, the other recovering. In such cases the disease becomes chronic, the cornea covering the eye remains a milky-white colour. Proper treatment in this form is sometimes beneficial in clearing the eye.

For animals that can be handled, the following applications are recommended for the eyes:—

For the first stage of the disease, 1 oz. of tincture of opium, 1 pint of water; or 1 oz. of liquor plumbi subacetate, 1 oz. tincture of opium, 2 pints of water. These may be applied two or three times daily.

For the second stage after the acute inflammation has subsided, 1 part of boracic acid, 60 parts of water; or 40 grains of nitrate of silver, 1 pint of water. These may be applied two or three times a week.

In the chronic stages, finely powdered burnt alum may be blown on the eye once a week.

APPENDIX D.

THE TICK PEST IN QUEENSLAND.

Until comparatively recently it was believed that the tick pest was being kept well in check by the Queensland Government, and it was hoped that its progress towards the southern portions of Queensland and this Colony would be long retarded if not completely stopped. Unfortunately this has not been the case, and the disease instead of being confined to the country around Rockhampton, which is some 350 miles from our border, has made its appearance in a slaughter-house near the sale-yards in the neighbourhood of Brisbane, and again at Redbank Meat-works, some 5 miles east of Ipswich, which, in a direct line, are not more than 60 or 70 miles from our border.

On the discovery of the disease the Chief Inspector visited Brisbane with a view to the notification of the necessary quarantines, and the adoption of such other measures as were calculated to prevent the further progress of the disease; but he failed to come to an agreement with the Stock Department there as to the steps which should be adopted, and a like result has attended an Intercolonial Conference held recently at Brisbane by the Ministers for Agriculture of this Colony, Victoria, and Queensland.

Negotiations are still proceeding, and it is hoped an arrangement will be arrived at under which the progress of the disease will be checked.

In view of the serious risk which the north-eastern portion of this Colony is now running of the introduction of the disease, the following precautions have been taken by the Department:—

1. All stock except horses in actual work and sheep have since been prohibited from entering this Colony from that portion of Queensland lying north of the border from Tweed Heads to the 148th meridian and south of the Conference line as altered by the Queensland proclamation of 29th April last.

2. Additional inspectors have been appointed, and are patrolling the border where the risk is greatest.

3.

3. Boundary riders have been engaged to assist the border inspectors from Tweed Heads to the 148th meridian.

4. Contracts have been entered into, or called for the fencing of the border from White Swamp to Tweed Heads, a distance of 70 miles, and the necessary particulars in regard to the fencing of the border from White Swamp to Wallangarra are being obtained.

5. The erection of a double fence and buffer area is under consideration, but what is most urgent now is to get such a fence erected as will prevent stray stock from crossing the border and assist the patrol in thoroughly maintaining the prohibition against Queensland stock. Should the pest unfortunately spread south of Brisbane the second fence will be at once erected in the more dangerous portions of the border.

6. The district inspectors, as well as those appointed for the border duty, have been instructed to devote all the time they can to its protection and to assist the border inspectors in their work.

7. The Inspector-General of Police has also issued instructions to the Force to assist in the enforcement of our proclamation.

Dipping.

Dipping for ticks in Queensland does not seem to have been so successful as it was at first thought it would be. To be effective—as dipping is with sheep scab—the medicaments used must contain some preventive agent to protect the cattle from reinfestation for a period exceeding the life of the larval ticks on the pastures, and such an agent has not yet been discovered. Still, it is said that dipping has been fairly successfully carried out by some owners in the St. Lawrence and Mackay districts.

Inoculation.

It is gratifying to note that the experiments with inoculation, conducted by Dr. Hunt in the north, and Mr. Pound in the south, of Queensland, have been productive of good results. It is claimed for inoculation that it has placed beyond doubt the fact that the injection of blood from a recovered animal into susceptible, healthy cattle, effectually protects them from the fever when placed in contact with infection; and this is confirmed by reports recently received of the result of inoculation. It has been performed on a good many thousands of cattle in the Hughenden, Mackay, and Rockhampton districts, and not only are the results very encouraging as to the protection of the cattle, but with extended experience the losses from the operation have greatly diminished.

While, however, this is the case, the question as to the effect, if any, of inoculation on the quantity and quality of the milk of dairy cattle which has been inoculated, or on the quality and keeping properties of butter and cheese, has not been thoroughly and scientifically tested, as it was agreed at the Intercolonial Stock Conference it should be. The test is now, however, being carried out by Mr. Pound, at Brisbane, and the question will now soon be settled.

APPENDIX E.

TABLE 1.

RETURN prepared by the Board of Health showing the number and proportion of Cattle condemned out of all those slaughtered at the Abattoir, Sydney, 1897.

Description of animals.	Number slaughtered.	Condemned diseased.		Condemned or bruised or unfit for food.	
		Number.	Percentage.	Number.	Percentage.
Bulls	54	5	9·6	Nil.	.....
Bullocks	58,557	706	1·2	2	·003
Calves	11,810	5	·04	2,301	19·4
Cows	13,965	295	2·11	18	·12
Pigs	56,568	2,272	4·01	7	·01
Sheep	1,129,701	390	·03	22	·00001
	1,270,655	3,673	.....	2,350	.....

Quarters condemned as bruised or unfit for food, 12.

"Cattle" means all kinds of animals killed for food.

TABLE 2.

SHOWING the total number of Cattle condemned under the Diseased Animals and Meat Act, and the Noxious Trades and Cattle-slaughtering Act, at various Slaughter-yards, and for the Colony of New South Wales generally, 1897.

Abattoir.....	6,023
Flemington	260
Other Sale-yards and places (dairies included)	30,409
	<u>36,692</u>

"Cattle" means all kinds of animals killed for food.

APPENDIX F.

NUMBER of Owners of different classes in the several Sheep Districts and the Sheep they respectively own.

District.	1 to 500 Sheep.		501 to 1,000 Sheep.		1,001 to 2,000 Sheep.		2,001 to 5,000 Sheep.		5,001 to 10,000 Sheep.		10,001 to 20,000 Sheep.		20,001 to 50,000 Sheep.		50,001 to 100,000 Sheep.		100,001 and over.	
	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.
Albury	167	31,938	51	39,371	33	47,956	25	77,841	10	67,662	6	94,010	8	260,883	...	.....	...	.....
Armidale.....	245	63,457	165	129,195	101	153,761	62	205,578	18	137,789	14	206,444	14	382,567	1	52,860	...	.....
Balranald	20	3,308	11	8,164	6	8,454	9	27,454	7	46,462	2	31,860	5	151,933	2	105,749	...	.....
Bathurst	363	61,087	82	64,664	46	70,193	20	62,040	13	96,195	6	81,867	2	75,284	...	.....	...	.....
Berrima	64	7,174	9	6,725	6	8,201	3	12,743	1	7,819	...	.....	...	.....	...	.....	...	.....
Bombala	87	41,726	44	33,489	25	35,874	16	58,051	6	44,908	6	76,545	2	133,815	...	.....	...	.....
Bourke	30	1,963	9	7,379	20	32,193	34	116,471	28	200,659	14	213,380	16	448,752	9	624,476	1	392,921
Braidwood	133	19,011	15	10,753	6	8,792	6	15,216	1	5,224	1	14,000	...	.....	...	.....	...	.....
Brewarrina	11	1,400	15	12,398	9	16,628	26	84,128	19	123,059	10	140,295	13	431,973	3	204,300	...	.....
Broulee	49	1,660	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Canonbar	57	12,716	28	22,347	35	56,669	32	106,263	17	117,221	15	200,707	11	320,258	4	310,862	1	162,975
Carcoar	229	72,649	92	80,153	55	83,276	31	103,406	18	122,700	5	63,432	7	203,928	...	.....	...	.....
Casino	10	897	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Cobar	14	987	3	2,062	3	4,856	9	31,995	10	84,324	15	221,137	11	321,892	5	336,037	...	.....
Condoblin	97	20,750	51	42,558	47	69,477	34	108,386	16	116,621	10	138,624	13	381,079	1	65,984	...	.....
Cooma	171	49,633	75	60,161	55	87,917	38	116,059	26	185,940	11	145,340	5	163,527	...	.....	...	.....
Coonabarabran	103	19,371	47	36,789	42	66,645	36	120,580	10	67,046	9	140,776	10	310,055	3	181,199	...	.....
Coonamble	36	8,052	31	25,800	46	75,172	49	159,357	33	241,926	21	259,179	16	454,118	4	293,183	1	166,691
Corowa	88	16,573	30	22,891	34	43,950	13	36,751	4	23,781	5	77,875	8	232,689	1	64,990	...	.....
Deniliquin	104	25,895	37	29,222	18	27,003	18	54,594	8	53,624	9	142,636	11	352,961	2	145,046	1	150,000
Denman	38	6,670	10	6,536	3	5,273	3	8,793	1	5,030	...	.....	...	.....	...	.....	...	.....
Dubbo	184	50,895	116	93,183	81	132,698	51	167,450	39	289,289	15	198,699	9	305,787	5	321,969	...	.....
Eden	68	3,056	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Forbes	271	44,372	86	65,280	66	101,476	47	162,019	29	212,176	18	247,263	10	292,229	...	.....	1	143,714
Glen Innes	131	26,131	76	59,043	57	84,886	20	69,375	14	89,371	6	81,246	11	315,638	...	.....	...	.....
Goulburn	342	52,236	53	38,238	31	49,248	14	50,828	7	43,414	5	57,544	...	.....	...	.....	...	.....
Grafton	24	2,436	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Gundagai	139	23,763	84	66,693	56	89,908	51	167,086	18	130,589	13	179,197	9	250,354	...	.....	...	.....
Hay	66	12,034	41	33,519	28	43,835	30	92,996	10	71,372	7	113,400	20	649,412	...	.....	2	268,382
Hillston	42	5,078	10	8,435	6	10,192	24	78,034	4	28,875	6	90,371	8	228,493	4	227,213	...	.....
Hume	69	13,093	31	25,411	13	19,536	23	78,269	12	85,054	6	94,679	8	206,019	1	55,014	...	.....
Ivanhoe	2	35	1	574	4	7,217	15	49,510	4	27,880	8	115,146	6	212,765	3	195,446	...	.....
Jerilderie	49	8,816	11	8,912	19	31,139	12	34,652	3	23,177	5	77,540	2	70,461	6	439,082	...	.....
Kiama	50	1,933	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Maitland	81	2,163	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Menindie	26	2,844	17	14,732	13	20,779	7	21,865	...	.....	2	26,250	10	332,277	4	251,012	...	.....
Merriwa	47	10,212	25	18,932	32	46,916	17	52,699	3	20,850	1	19,000	5	163,473	1	86,350	...	.....
Milparinka	5	320	...	.....	...	.....	...	.....	1	2,350	1	5,996	5	75,363	2	131,047	1	147,395
Molong	345	74,571	110	84,896	73	110,801	43	147,851	20	149,569	20	298,976	2	61,393	...	.....	...	.....
Moree	38	6,477	31	22,495	42	63,871	54	174,459	23	159,013	14	195,961	11	283,123	2	126,287	2	280,350
Moulamein	49	9,433	15	10,566	16	21,293	1	3,500	...	.....	6	94,751	10	297,144	...	.....	...	.....
Mudgee	306	64,616	108	89,676	49	71,437	33	114,846	11	70,420	8	117,543	5	128,847	...	.....	...	.....
Murrurundi	77	19,069	56	42,266	46	65,190	29	88,742	10	75,259	1	14,693	3	80,433	1	76,000	...	.....

APPENDIX F—continued.

District	1 to 500 Sheep.		501 to 1,000 Sheep.		1,001 to 2,000 Sheep.		2,001 to 5,000 Sheep.		5,001 to 10,000 Sheep.		10,001 to 20,000 Sheep.		20,001 to 50,000 Sheep.		50,001 to 100,000 Sheep.		100,001 Sheep and over.	
	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.	No. of Owners.	No. of Sheep.
Narrandera.....	104	18,146	32	25,493	23	37,591	19	59,239	10	69,534	7	89,061	9	293,486	4	264,921	1	100,909
Narrabri.....	41	5,008	23	17,984	25	40,779	18	60,971	7	44,029	2	25,391	6	177,812	2	145,037	1	102,599
Picton.....	28	2,222	3	2,061	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pilliga.....	22	4,492	13	10,806	32	52,400	22	67,072	11	75,415	5	58,624	7	234,945	...	...	...	...
Port Macquarie.....	35	708	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Port Stephens.....	65	1,473	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Queanbeyan.....	164	36,095	49	38,495	33	51,785	16	50,178	6	43,150	9	123,216	5	191,752	...	...	...	...
Singleton.....	78	7,279	3	1,830	6	7,352	...	...	...	...	...	...	1	20,300	...	...	...	...
Sydney.....	150	3,000	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tamworth.....	315	68,390	183	141,724	102	147,530	77	251,671	32	244,531	25	367,825	12	370,354	4	301,705	3	481,033
Tenterfield.....	70	20,802	29	20,237	14	18,766	2	5,101	...	...	3	50,223	1	32,298	...	...	...	...
Tweed-Lismore.....	8	94	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Urana.....	40	8,583	21	15,853	14	18,389	20	65,283	4	28,224	3	48,592	7	193,850	...	...	2	292,892
Wagga Wagga.....	385	20,183	92	70,896	59	88,175	62	203,439	18	114,619	14	196,397	19	595,005	...	...	...	...
Walgett.....	38	8,340	29	23,494	34	52,823	48	165,573	35	236,532	16	234,970	13	424,270	10	635,833	1	119,408
Wanaaring.....	3	504	...	...	1	1,506	...	...	2	16,158	...	...	6	203,746	6	427,579	1	106,644
Warialda.....	195	16,851	40	31,158	49	80,022	39	124,264	25	177,308	8	119,907	9	267,424	7	502,827	...	...
Wentworth.....	38	8,782	20	15,031	16	24,475	4	15,353	1	5,034	1	18,835	5	155,639	2	111,164	...	...
Wilcannia.....	13	1,473	4	3,055	9	12,825	4	14,078	1	6,076	3	47,492	10	342,407	3	176,074	2	328,148
Windsor.....	3	240	1	821	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Yass.....	243	44,406	87	68,403	43	70,097	37	117,680	14	100,561	6	72,562	1	21,117	...	...	...	...
Young.....	361	72,081	145	119,136	85	128,269	79	254,532	31	228,033	29	401,839	7	208,499	2	113,052	...	...
Total.....	6,926	1,249,492	2,450	1,920,485	1,767	2,710,546	1,383	4,511,676	651	4,625,398	436	6,230,663	406	12,468,278	104	6,972,298	21	3,264,061

ABSTRACT I.

No. of Sheep Owners.	Ranging from—	No. of Sheep Owned.
6,926	1 to 500	1,249,492
2,450	501 " 1,000	1,920,485
1,767	1,001 " 2,000	2,710,546
1,383	2,001 " 5,000	4,511,676
651	5,001 " 10,000	4,625,398
436	10,001 " 20,000	6,230,663
406	20,001 " 50,000	12,468,278
104	50,001 " 100,000	6,972,298
21	100,001 and over	3,264,061
14,144	.....	43,952,897

APPENDIX G.

INCREASE and Decrease of Sheep, year ended 31st December, 1897.

(By the Government Statistician.)

Sheep on 31st December, 1896	...	...	...	...	...	No.	48,318,790
Lambs marked during 1897	...	...	...	...	...		6,708,043
Sheep imported during 1897	...	...	...	...	...		1,171,794
							56,198,627
Slaughtered for food for local consumption (excluding sheep killed on stations and farms)	...	...	...	...	...	No.	1,953,984
Do for food on stations, &c.	...	...	...	...	...		1,154,506
Do for meat-preserving	...	...	...	...	...		750,282
Do for freezing for export	...	...	...	...	...		1,065,990
Do for boiling-down in boiling-down works	...	...	...	...	...		477,914
Do do do on stations	...	...	...	...	...		148,911
Lambs slaughtered for food for local consumption	...	...	...	...	...		119,258
Total slaughtered	...	...	...	...	...		5,670,845
Exported during 1897	...	...	...	...	...		1,022,295
Killed by dogs	...	...	...	...	...		251,472
Loss by drought, ordinary mortality, and missing sheep	...	...	...	...	...		5,301,118
							12,245,730
Total deduction	...	...	...	...	...		12,245,730
Sheep on 31st December, 1897	...	...	...	...	...		48,952,897
							4,365,893
Decrease on previous year	...	...	...	...	...		4,365,893

APPENDIX H.

AUSTRALIAN Stud Sheep offered for Sale by Auction in Sydney during the Year 1897.

	Number of Rams.	Number of Ewes.	Total.	
			Rams.	Ewes.
By Messrs. Goldsbrough, Mort, & Co. (Ltd.), on account various New South Wales breeders	394	130	.....	.....
Do on account of various Tasmanian breeders	1,323	5	.....	.....
Do on account various Queensland breeders	30	.....	1,747	135
Messrs. Weaver and Perry, on account various New South Wales breeders	212	31	.....	.....
Do on account of Otto Steiger, Esq., Saxony	11	5	223	36
Messrs. Hill, Clarke, & Co., on account various New South Wales breeders	130	19	.....	.....
Do on account various Victorian breeders	35	20	.....	.....
Do on account various Tasmanian breeders	238	46	.....	.....
Do on account various New Zealand breeders	1	.....	404	85
The New Zealand Loan and Mercantile Agency Co. (Ltd.), in conjunction with Warden Harry Graves, Esq., on account various New Zealand breeders	45	.....	.....	.....
Do on account various New South Wales breeders	80	4	125	4
Total	.....	.....	2,499	259

APPENDIX I.

STATEMENT showing the result of Vaccinations for Anthrax.

Lots Vaccinated	Number of Sheep Vaccinated.	Were any Sheep dying when they were Vaccinated.	Number of Vaccinations, 1st, 2nd, and 3rd.	Number of Deaths after 1st Vaccination.	Number of Deaths after 2nd Vaccination.	Number of Deaths after 3rd Vaccination.	State of Weather during Vaccination.	Remarks.
<i>Vaccinated by Messrs. M'Garvie Smith and Gunn.</i>								
1	2,140	No	1st	Nil	Nil	Nil	Hot and dry	No deaths have occurred since last vaccination.
2	22,100	Yes	"	"	"	"	Very hot	
3	5,808	"	"	"	"	"	"	
4	2,046	"	"	"	"	"	Warm	
5	3,304	"	"	"	"	"	Hot	
6	2,114	"	"	"	"	"	"	
7	2,600	"	"	"	"	"	"	
8	1,716	"	"	"	"	"	Very close	
9	1,191	"	"	"	"	"	Warm	
10	6,099	"	"	"	"	"	"	
11	4,371	"	"	"	"	"	Hot	
12	4,070	"	"	"	"	"	"	
13	574	"	"	A few	"	"	Warm	
14	592	"	"	Nil	1	"	Hot	
15	8,039	"	"	A good number.	Nil	"	"	
16	4,000	"	"	Nil	"	"	"	
17	991	"	"	2	"	"	Dry & warm	
18	790	"	2nd	Nil	9	"	"	
								These sheep had to be vaccinated a second time.

APPENDIX I—continued.

Lots Vaccinated	Number of Sheep Vaccinated	Were any Sheep dying when they were Vaccinated	Number of Vaccinations, 1st, 2nd, and 3rd	Number of Deaths after 1st Vaccination.	Number of Deaths after 2nd Vaccination	Number of Deaths after 3rd Vaccination.	State of Weather during Vaccination	Remarks.
19	10,000	Yes	1st	80	Nil	Nil	Warm	
20	30,000	"	"	Nil	"	"	Fine and hot	
21	8,000	"	"	"	"	"	"	
22	5,000	"	"	"	"	"	"	
S 23	1,280	No	"	"	"	"	Cool and dry	
200 24	10,000	"	2nd	"	"	"	Warm & dry	
93 25	6,437	"	1st	"	"	"	Cool	
52 26	705	"	"	"	"	"	Warm	
48 27	2,827	Yes	"	"	"	"	"	
28	2,309	"	"	"	"	"	Cool	
29	10,110	No	1st & 2nd	"	"	"	"	
30	2,000	Yes	1st	"	"	"	Hot	
31	13,146	No	"	"	"	"	Cool	
32	11,448	"	1st & 2nd	36	"	"	Hot	
33	1,600	Yes	1st	Nil	"	"	"	
34	1,885	"	"	"	"	"	"	
35	1,220	"	1st & 2nd	80	"	"	Very hot	
36	1,758	"	1st	Nil	"	"	Hot	
37	3,610	"	"	"	"	"	"	
38	6,461	No	"	"	"	"	"	
39	3,616	"	"	"	"	"	"	
40	5,450	"	"	"	"	"	Cool	
41	14,000	Yes	"	"	"	"	Hot and dry	
42	20,000	"	"	"	"	"	"	
43	6,423	"	"	"	"	"	"	
44	8,691	"	"	"	"	"	"	
45	10,631	"	"	"	"	"	"	
46	15,866	"	2nd	200	"	"	"	
47	2,631	"	1st	Nil	"	"	"	
48	5,546	"	"	"	"	"	"	
49	5,653	"	"	"	"	"	"	
50	12,821	"	2nd	200	"	"	"	
51	4,000	"	1st	Nil	"	"	"	
52	1,910	"	"	"	"	"	"	
53	1,117	"	"	"	"	"	"	
54	3,326	"	2nd	"	"	"	"	
55	9,138	"	1st	"	"	"	"	
56	207	"	"	"	"	"	"	
57	1,117	"	"	"	"	"	"	
58	8,462	"	"	"	"	"	"	
59	294	"	"	"	"	"	"	
60	9,000	"	"	A few	"	"	Dry	
61	12,000	"	"	"	"	"	"	
62	3,000	"	"	"	"	"	"	
63	3,000	"	"	"	"	"	"	
64	9,544	No	"	Nil	"	"	Cool	1,120 vaccinated in 1896.
65	5,921	"	"	"	"	"	Warm	1,000 "
66	1,736	"	"	"	"	"	"	1,675 "
67	11,133	"	2nd	"	"	"	Hot	6,000 "
68	2,159	"	"	"	"	"	"	800 "
69	1,453	"	1st	"	"	"	"	"
70	1,920	Yes	"	"	"	"	Warm	"
71	7,500	No	2nd	"	"	"	"	3,500 "
72	4,124	Yes	"	"	"	"	"	"
73	5,028	"	"	"	5	"	"	900 "
74	2,148	"	1st	"	Nil	"	"	"
75	13,164	No	"	"	"	"	"	5,000 "
76	7,806	"	"	"	"	"	"	4,000 "
77	3,381	Yes	2nd	"	"	"	Hot	2,000 "
78	1,950	"	1st	"	"	"	"	"
79	26,500	No	"	"	"	"	Very hot	14,000 "
80	10,660	Yes	2nd	"	"	"	"	6,000 "
81	2,188	"	1st	"	"	"	Hot	"
82	14,129	"	"	"	"	"	Very warm	2,000 "
83	4,779	"	2nd	"	"	"	Warm	"
84	656	No	1st	"	"	"	"	"
85	8,639	Yes	2nd	"	"	"	Very hot	"
86	45,850	No	1st	"	"	"	"	28,000 "
87	2,973	"	"	"	"	"	"	1,000 "
88	23,400	Yes	"	"	"	"	"	14,500 "
89	4,843	"	"	"	"	"	"	"
90	6,448	"	"	"	"	"	"	"
91	1,500	"	"	"	"	"	"	900 "
92	1,686	"	"	"	"	"	"	"
93	1,312	"	"	"	"	"	"	"
94	940	"	"	"	"	"	"	"
95	1,180	"	"	"	"	"	"	"
96	1,780	"	2nd	"	"	"	"	"
97	6,474	"	1st	"	"	"	"	"
98	960	"	"	"	"	"	"	"
99	3,348	"	"	"	"	"	"	"
100	2,715	"	"	"	"	"	"	"
101	462	"	"	"	"	"	"	"
102	2,120	"	"	"	"	"	"	"
103	2,588	"	"	"	"	"	"	"
	627,337	Total Vaccinated by Messrs. McGarrie, Smith, and Gunn.						

APPENDIX I—*continued.*
 VACCINATED by Pasteur Anthrax Laboratory of Australasia, Limited.

Date of the Vaccinations.	No. of Sheep Vaccinated	No. of Cattle Vaccinated.	No. of Horses Vaccinated.	Deaths after First Vaccination.	Deaths after Second Vaccination.	Remarks.	
1897.							
September	6,700	} No deaths reported up to date.	
November	1,300	....	....	.....	.....
Do	1,200	....	....	.....	.....
Do	30	....	....	.....	.....
December	100	} Deaths reported by the owner as happened through putting the needle too deep in during inoculation ; no deaths since. The stock had been infected. Out of lot No. 8, ten cattle died before first inoculation, and out of lot No. 9 one ; twelve days after the second inoculation no more died with anthrax.	
1898.							
January	850	....	....	.. .	.. .
Do	4,087	....	.. .	20	.....	
Do .....	....	50	....	.....	4
Do .....	....	80	....	.....	3
February .....	....	40	.. .	.....	.....
Do .....	....	50	....	.....	.....
Do	750	....	....	.....	.....
Do .....	....	40	.. .	.....	.....
March	1,000	} No deaths reported up to date.	
Do .....	....	63	.. .	.....	.....
Do .....	....	1	9	.....	.....
April .....	....	5	....	.....	.....
Total	16,017	329	9	20	7		

Total Stock Vaccinated for Anthrax.

By Messrs. McGarvie, Smith, and Gunn	627,337
., Pasteur Anthrax Laboratory of Australia	16,017
	643,354 sheep.
	329 cattle.

APPENDIX J.

FOOT-ROT.

DRESSINGS recommended by Mr. E. Stanley, Government Veterinarian. (For further details see *Agricultural Gazette*, July, 1891):—

Arsenic Dressing.

Arsenic, from 1 to 2 oz. ; potash, from 2 to 4 oz. ; water, 1 gallon.

To be used in troughs for the sheep to walk through. The mixture to be boiled slowly for half-an-hour at least, till the arsenic is thoroughly dissolved.

Sulphate of Copper (Bluestone) Dressing.

Sulphate of copper, from $\frac{1}{2}$ lb. to 1 lb., dissolved in a gallon of water, may be used instead of arsenic.

The following healing dressings may be used by hand after the above caustic applications:—

Tar Dressings.

Stockholm tar, 20 parts ; carbolic acid, 1 part ; or, Stockholm tar, 8 parts ; bluestone in powder, 1 part ; or, oil of tar, 10 parts ; carbolic acid, 1 part ; olive oil, 1 part.

Lime Dressing.

Quick-lime, sprinkled on a dry surface, and the sheep walked through it frequently, will be found very beneficial. Before any dressings are used, the whole of the loose horn should be pared carefully from the diseased feet. It is of the greatest importance that the sheep's feet should, on the dressing being applied, be kept thoroughly clean and dry for at least three hours afterwards. They should, therefore, on leaving the troughs, or being dressed, be passed directly on to a battened or wooden floor, if it can be got ; and where neither of these is obtainable, they should be passed into a dry yard, in which there is a good coating of straw, cut grass, or dry bark taken from trees which have been rung, or, in fact, any other thing which will keep their feet clean and dry.

The following are the remedies reported by the Inspectors to have been used and the results:—

Application.	Result.	Application.	Result.
Arsenic in troughs	Good.	Corrosive sublimate and bluestone	Good.
„ bluestone and carbolic acid	Not given.	Carbolic acid	Good.
„ and bluestone	Good.	„ and oil and butyr of antimony	Good.
„ and lime	Fair.	„ acid, bluestone, and arsenic	Not given.
„ and saltpetre	Not given.	Kerosene	Good.
Bluestone and corrosive sublimate	Satisfactory.	„ and bluestone	Good.
„ and arsenic	Good.	Lime and tar	Not given.
„ and kerosene	Good.	„ and arsenic	Not given.
„ and lime	Good.	Sulphur and bluestone	Good.
„ and sulphur	Good.	Saltpetre and arsenic	Not given.
„ arsenic and carbolic acid	Good.	Tar and turpentine	Not given.
Butyr of antimony	Good.	„ and quick-lime	Good.
„ „ carbolic acid and oil	Satisfactory.	„ and bluestone	Good.
Corrosive sublimate	Not given.		
<i>Specifics.</i>			
Cooper's Dip	Satisfactory.	Quibell's Foot-rot Cure	Good.
Hayward's Dip	In some cases.	Graham's Foot-rot Powder	Not very satisfactory.
Little's Dip	Satisfactory.	Payton's Foot-rot Specific	Very satisfactory.
Pottie's Specific	Not stated.		

APPENDIX K.

AMENDED BRANDS BILL.

The Intercolonial Trade in Stock must be kept in view in framing a Brands Act.

THIS is necessary because, as there is a frequent interchange of stock from one colony to another, the registration in all the colonies would to a large extent be nullified if, as it is now proposed, the same form of brands (one and two piece brands) is adopted in all the colonies. At present that system is only in use in this Colony. In Queensland all the brands consist of two letters or signs and one numeral, while in South Australia they consist of two numerals and one letter; and in this way stock bred in the several colonies are now readily recognised. As, therefore, these two colonies proposed to adopt the same system as this Colony it became necessary to fix upon a brand to indicate the colony in which the first brand was imprinted on the stock; and the Registrars for the three colonies and the Chief Inspector of Stock for Victoria under instructions from their respective Ministers met in conference at Brisbane in 1895, and proposed that a small dot—or any legible brand—should be attached to the brands used in each of the four Australian colonies, but in different positions, which would indicate the several colonies in which the breeders brand was branded without interfering with his brand. No alteration would, however, be made in the brands of this Colony, as it is our system which the other colonies propose to adopt.

The matter again was brought up at an Intercolonial Stock Conference held in Sydney in August, 1896, when the Minister for Mines and Agriculture for this Colony was requested to have a Draft Bill prepared, which, while its general provisions were such as could be adopted by all the colonies, such forms of brands would be adopted by the several colonies as would indicate the colony in which it was used.

With the view to comply with this request, and to consolidate and amend the law relating to the registration of brands and marks on stock as it exists in this Colony, this Draft Bill has been framed.

Our Brands Act, which was the first passed in any of the colonies, is defective in many respects, and its provisions tedious and expensive to carry out.

The following may be specified as some of the more important amendments which it is proposed to make, and the reasons for making them :—

1. Several new branding portions are added to those in the Schedules now in force, and they are, as far as horses are concerned, to allow owners who breed for the Indian, China, and English markets, to brand on less prominent positions, and as regards cattle to give owners if they choose the option to brand on less valuable portions of the hide. It is estimated that by adopting this plan and using smaller brands a sum of £300,000 a year might be saved to the colonies.

2. The ear-marks of cattle will be registered with the view to make ear-marks of cattle as much proof of ownership as sheep ear-marks are of sheep. As it now is, eight or ten owners in the same district may have the same ear-mark; and as it now is, an ear-mark in cattle is of little or no value as proof of ownership. But this will be altered by their registration, after which no two owners in the Colony will have the same brand and ear-mark. Not only will ear-marks then be additional valuable links of evidence, but they will be a great convenience, in so far as the drafting will then be almost entirely done by the ear-mark, as it is in the case of sheep.

The drafting of cattle in Queensland is now principally done by the ear-mark, and it will be entirely when the system of registration of marks is amended.

3. The size of the brand will be considerably reduced; for with a good plain full-sized ear-mark made with a pliers there will then be no necessity for the large flaring brands which are now put on stock by their owners to enable them to pick out their stock at a long distance. He will then do so very much more readily by their ear-mark, which is the first thing to attract attention, and can as a rule be seen from any position.

4. The store brands will enable owners who have two and three piece owners' brands to register a single-piece brand which will be quickly and easily branded on any of the store portions, but especially on either loin. It is almost impossible to brand some owners' brands on store cattle without putting them in bails or throwing them.

5. The working of the Act will be greatly simplified, and the proposal to carry out the details by regulations will render the measure very much more complete. By-gone experience as regards legislation in pastoral matters has shown that it is seldom obtained when wanted, even with respect to mere matters of detail, whereas a regulation by the Governor and Executive can be made out and issued in a fortnight. And there can be no danger in adopting this course, for it will be seen that there is a provision in the bill which empowers Parliament, by mere resolution, to cancel or alter any regulation which may be made and found to be unworkable or oppressive, so that there can be no risk whatever in entrusting the Governor and Council with the power here proposed to be conferred. There is still another reason why there can be no risk, now that the Council of Advice has been elected and recognised by the Minister. It may be taken for granted that no matter of practical detail calling for the issue of regulations will be dealt with until the opinion of the Council has been obtained.

6. The provisions for the prevention of stock-stealing will be enlarged in regard to all descriptoin of stock, and made more effective by putting them on the same footing as regards large stock as they are now under the Sheep Act of 1878 with respect to sheep.

7. As to registration of store brands on the hoofs of broken-in horses, this will be a real boon to owners residing in towns who turn their horses out to grass for a spell, but who now run the risk of losing them, should they stray, rather than re-brand them. Hoof brands on broken-in horses are thoroughly legible. They are so on cavalry horses, and poundkeepers and others would be bound to take notice of them, while they can readily be renewed.

8. No alteration is proposed in the existing system of the sheep brands and marks or their registration, although, through a mistake in the wording of the heading of some of the schedules to the bill which relates to the sheep brands and marks, it would appear that an alteration was intended.

APPENDIX L.

STATEMENT of the number of the different kinds of noxious animals killed during years from 1881 to 1897; the amount of assessment collected, the amount of Government subsidy paid; and the total expenditure for each of these years.

Year	† Kangaroos	Wallabies	Native Dogs	Hares	Wild Pigs	Amount of Assessment collected			Amount of Government subsidy paid			Amount of Expenditure		
	Number killed	Number killed	Number killed	Number killed	Number killed	£	s	d.	£	s	d.	£	s	d.
1881	581,753	43,724	2,250			17,648	19	10	749	11	2	15,517	5	4
1882	1,452,829	347,842	6,980			45,772	12	8	25,299	19	2	61,191	14	3
1883	750,846	330,109	7,195			32,781	14	2	16,381	19	6	58,132	7	1
1884	1,403,233	473,609	7,336			48,069	15	8	21,606	10	6	62,121	0	0
1885	855,676	506,372	8,474	5,878	922	61,754	15	4	23,753	3	8	64,672	8	2
1886	1,106,478	594,603	9,560	28,623	562	41,585	0	0	16,168	3	0	67,783	6	6
1887	476,438	388,088	7,739	56,628	664	32,651	13	8	9,589	9	5	37,354	11	1
1888	688,352	653,285	9,619	176,732	12,041	25,474	2	10	9,117	7	6	52,121	9	6
1889	582,200	642,782	9,142	329,683	9,700	33,257	0	3	10,000	0	0	50,525	14	3
1890	267,769	506,161	9,955	397,439	5,292	33,649	0	11	8,792	0	0	39,663	11	6
1891	402,053	705,510	11,530	649,131	20,206	31,664	8	9	8,336	4	1	46,794	10	9
1892	433,578	726,669	11,838	786,230	45,173	37,733	19	8	8,408	17	4	49,987	4	5
1893	284,082	743,017	14,148	734,212	8,802	39,116	15	7	1,766	5	10	46,688	5	8
1894	250,455	796,667	11,279	708,581	25,851	39,466	13	3	1,826	10	1	44,695	6	3
1895	623,383	1,393,253	11,383	700,917	43,965	39,638	14	0	1,052	12	10	45,952	10	2
1896	241,447	655,309	13,138	551,548	23,300	38,252	2	8	1,590	12	3	35,933	18	8
1897	266,244	1,118,473	13,264	599,595	9,524	35,235	3	8	*			40,340	13	11
Totals	10,666,816	10,625,473	164,830	5,725,197	206,002	633,752	12	11	164,439	6	4	819,475	17	6

* N B -Subsidy on account of assessment collected during year 1896-7 will be paid during half year January to June, 1898
† Includes kangaroo Rats

APPENDIX M.

STATEMENT of the Operations of the Pastures and Stock Protection Boards during the year 1897.

	Amount of Assessment collected	Amount Expended	Kangaroo	Kangaroo Rats	Wallabies	Wombats	Paddamelon	Bandicoots	Native Dogs	Hares	Opossums	Pigs	Eagle Hawks	Crows	Emus	Foxes.
Albury	£ 459 4 10	£ 396 10 5							7	11,881						23
Armidale	1,522 1 10	1,408 15 5							840	26,928				2233		16
Balranald	73 3 6	192 14 2							144		4					
Bathurst	969 1 6	985 7 10		17,910	73,957				73					2072		
Berrima	171 13 0	257 19 8			22,586	198			36							
Bombala	457 16 10	303 2 6							393				208			
Bourke	672 19 8	316 12 5							300							
Braidwood	215 5 11	249 13 7							24	21,207						3
Brewarrina	139 0 2	27 14 3														
Broulee	390 19 3	210 16 6				159	7,945	30	68	1,643						
Cannonbar	283 2 11	717 12 9				765	2,682	20	48			3,471				
Cancoar	760 2 0	520 15 0				374	26,762		9	12,454						
Casino	193 11 5	96 11 5							355							
Cobar	581 5 3	439 12 7					2,509		187							
Condobolin	2,104 2 10	1,912 16 0		1,826	113,843		1,468		842							
Cooma	223 7 0	278 5 11							201							
Coonabarabran	587 8 10	330 8 10							247							
Coonamble	765 14 4	294 18 10							33		499		20	6,407	905	67
Corowa	243 17 4	243 17 4		514						2,616						378
Deniliquin	194 18 0	201 8 6						38								
Denman	259 10 6	231 5 7		2,200	7,498				102					440		
Dubbo	1,202 0 9	1,204 4 0		5,527	231,973				406	10,081			1			
Eden	319 14 7	223 3 10			6,490				87	21,408						
Forbes	1,963 10 10	2,123 7 0	6 184	20 910	84,122		5,391		210	30 150						
Glen Innes	912 0 9	1,032 17 11	9,275	23,929					616	4,877			306	1,376		
Goulburn	1,000 18 5	1,209 3 8		9,663					22	117,450						
Grafton		99 1 4			418			14	106							
Gundagai	1,357 0 2	1,265 9 5							71	73,230						
Hay	126 4 0	177 18 3							131							
Hillston	230 8 5	324 2 3							372							
Hume	625 13 8	816 15 8		10 908					312	35,696						
Ivanhoe	454 6 3	212 12 0							223							
Jerilderie	147 12 10	203 6 6														
Kiama	258 2 1	402 9 0			15,010				26	2,960	3,652					
Matland	532 3 7	213 16 3	843	19,214	231		1,000									
Memorie	512 9 5	583 18 6							848							
Merriva	199 8 2	248 17 2		3,736	10,879				44	2,144			182	1,098		
Milparinka	99 9 0	123 15 0							291							
Molong	1,267 1 8	1,196 13 5		17 314	46,086				184	37,467				1 583		
Moree	839 13 9	764 14 10		2,016	56,853				228				361	709		
Moulamein	54 10 6	166 10 6													670	40
Mudgee	691 18 6	1,032 3 0		18,759	66,743				222	22,250				2,145		
Murrumbidgee	751 0 7	815 17 11		9,632	40,200	14			74	8,099			413	2,038		
Narrandera	592 9 3	691 10 4							243				3,880			3
Narrabri	266 9 8	532 16 3		277	45,508				217				151	1,550		
Picton	115 12 6	308 18 11			7,305				150	5,425			53	2,622		
Pilliga	341 0 0	692 0 0			19 600				558							
Port Macquarie	230 10 8	180 14 3	59	17	2,465		3,752	289	68		46					
Port Stephens	180 0 0	120 0 0			2,880				390	60						
Queanbeyan	373 14 8	594 14 7							112	39,192						
Singleton	534 10 0	534 19 9			16,533				332	10 277						
Sydney	205 11 2	169 6 6							27	1,726						
Tamworth	1,465 2 4	3,059 0 9		29,048	88,412		150,402		400				304	8,814		
Tenterfield	2 2 3	133 4 5														
Tweed-Lismore		21 5 6														
Urana	335 11 11	273 13 6			2,000	300				600						
Wagga Wagga	454 4 3	1,001 14 8		11,061	18,732		23,383		105	23,817				1,410		2
Walgett	743 17 4	661 19 6							30			5,554	172	8,432		
Wanaaring	1,465 2 4	3,059 0 9							384							
Warialda	906 12 11	1,205 9 10		7,447	112,488				571	57			315	2,278		
Wentworth	522 0 7	412 17 7							160							
Wilcannia	259 13 9	635 8 0							1,050							
Windsor	213 19 8	175 13 10			6,205				40	4,182						
Yass	244 14 11	450 7 3				38				39 782						
Young	1,106 16 0	818 0 11		10,945			7,613			29,473			131	7,475		
Totals	35,235 3 8	40,340 13 11	27,422	233,822	1,118,473	318	198,043	800	13,264	599,595	3,702	9,524	6,502	52,682	1,575	532

APPENDIX N.

STATEMENT of RECEIPTS and EXPENDITURE in connection with the Trust Fund Account "Prevention of Scab in Sheep" from the 1st January to 31st December, 1897.

"As per Treasury Account"

To Balance Amount due Consolidated Revenue Fund on 1st January, 1897	£ s d 5,149 4 9	By Assessments, &c, received January to December, 1897	£9,019 15 0	£ s d 18,510 5 2
Payments, January to December, 1897	21,797 18 1			Balance Amount due Consolidated Revenue Fund on 31st December, 1897	582 17 4	8,426 17 8
	£26,947 2 10	Less Balance at Credit Trust Fund		£26,947 2 10
To Balance due Consolidated Revenue Fund	8,436 17 8			

DETAILED STATEMENT of AMOUNTS VOTED and EXPENDED for YEAR JANUARY to DECEMBER, 1897.

"As per Mines Department Account."

DR.								CR.
No of officers, 1896-7	No of officers, 1897-8	Amounts voted	Amounts as voted for 1896-7	Amounts as voted for 1897-8	Amount voted for year, July, 1896 to June, 1897, £21,701 Amount of above vote (£10,850 10s) available for the half year, January to June, 1897, as under	Amount voted for year, July, 1897, to June, 1898, £26,072. Amount of above vote (£13 036) available for the half year, July to December, 1897, as under	Total amount available for year January to December, 1897	Amounts expended
			£	£	£ s d	£ s d	£ s d	£ s. d.
		<i>Salaries.</i>						
1	1	Chief Inspector, at	605	605				
1	1	Metropolitan Inspector, at	440	240				
1	1	Clerk, at	260	285				
1	1	" "	200	225				
1	1	" "	160	185				
2	2	" "	150	175				
1	1	Draftsman, at	236	260				
6	6	Inspectors, at	325	325				
12	14	" "	300	300				
14	15	" "	275	275				
18	15	" "	250	250				
1	1	" "	225	225				
1	1	" "	200					
	1	Quarantine Keeper, at		110				
	1	Messenger and Caretaker		125				
	1	Office Cleaner		52				
		<i>Contingencies</i>			8,263 0 0	8,343 10 0	16,606 10 0	Salaries 15,960 17 6
		Travelling Expenses to Inspectors	2,640	4,000				Travelling Expenses to Inspectors 2,533 7 10
		" " Sheep Directors	500	500				" " Sheep Directors 787 15 10
		Allowance to Inspectors for Stationery	225	225				Allowance to Inspectors for Stationery 228 13 7
		Medicaments for Dressing Sheep	10	10				Medicaments for Dressing Sheep
		Rent of Offices	800	800				Rent of Offices 776 17 10
		Incidental Expenses	1,000	1,000	2,587 10 0	3,267 10 0	5,855 0 0	Incidental Expenses 1,605 15 9
		To meet Expenses of "The Stock Board's Council of Advice"		*250			£22,461 10 0	£21,893 8 4
		To replace Salaries of Officers of the Stock Branch for the Year 1896-7 as they were prior to grading by the Public Service Board.		*2,600			*250 0 0	250 0 0
							*2,600 0 0	2,600 0 0
								Amount voted to meet Expenses "Stock Board's Council of Advice" for Year 1897-8, but not operated upon at 31st December, 1897
								Amount voted to replace Salaries of Officers of the Stock Branch for the Year 1896-7, but not operated on at 31st December, 1897.
								Balance 31st December, 1897
							£25,311 10 0	568 1 8
								£25,311 10 0

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P.S.—From the above Statements it will be seen that the Treasury and Mines Department Accounts do not agree, for the reason that the Treasury Account shows the actual amount disbursed, while that of the Mines Department represents amount of vouchers charged to the Vote, all of which however were not paid until after the 31st December, 1897.

* These amounts will be operated on during the Half year January to June, 1898,

APPENDIX O.

LIST showing names and addresses of Inspectors whose Salaries are paid from the "Sheep Account."

District.	Name of Inspector.	Address.	Salary per Annum.
Albury	G. E. Mackay	Albury	£ 325
Armidale	C. J. Vyner	Armidale	325
Balranald	Walter Dargin	Balranald	275
Bathurst	G. S. Smith	Bathurst	250
Bombala and Eden	R. W. Dawson	Bombala	275
Bourke	D. W. F. Hatten	Bourke	325
Braidwood and Bromlee	H. L. Mater	Braidwood	275
Brewarrina	Blakeney Broughton	Brewarrina	300
Carcoar	C. B. King	Carcoar	250
Cobar	J. Cotton	Cobar	300
Condobolin	A. James	Condobolin	275
Cooma	C. Hudson	Cooma	275
Coonabarabran	E. May-Steers	Coonabarabran	275
Coonamble	T. W. Medley	Coonamble	250
Corowa	A. Campbell	Corowa	250
Deniliquin	Joseph Weir	Deniliquin	300
Dubbo and Cannonbar	R. G. Dulhunty	Dubbo	325
Forbes	W. G. Dowling	Forbes	300
Glen Innes and Tenterfield	M. J. St. Clair	Glen Innes	300
Goulburn	J. L. Henderson	Goulburn	250
Grafton, Casino, and Tweed-Lismore	A. A. Devlin	Casino	250
Gundagai	P. W. C. Palmer	Gundagai	250
Hay	R. W. Broughton	Hay	300
Hilston	T. Cadell	Hilston	275
Hume	W. A. Mackie	Germanton	300
Ivanhoe	E. W. Proctor	Mossiel	300
Jerilderie	J. A. T. Rochfort	Jerilderie	300
Maitland and Port Stephens	W. J. Powell	West Maitland	275
Menindie	Joseph Wilks	Broken Hill	300
Merriwa	W. H. Lowe	Merriwa	225
Moree	E. V. Ffrench	Moree	275
Moulamein	J. W. Chanter	Barham	250
Molong	E. G. Finch	Molong	250
Mudgee	C. J. Croker	Mudgee	250
Murrurundi and Denman	J. W. Brodie	Murrurundi	250
Narandera	W. J. Elworthy	Narandera	300
Narrabri and Pilliga	A. H. Farrand	Narrabri	275
Pictou, Berrima, Kiama	J. Yeo	Moss Vale	300
Port Macquarie	H. E. Palmer	Kempsey	250
Singleton	T. Knox-Hill	Singleton	250
Sydney	R. D. Jones	Sydney	440*
Tamworth	W. D. Dowe	Tamworth	325
Urana	P. E. Brett	Urana	250
Wagga Wagga	C. Lyne	Wagga Wagga	275
Walgett	W. Rynie	Walgett	300
Wanaaring	T. T. W. Mackay	Hungerford	325
Warialda	R. Kirkpatrick	Warialda	275
Wentworth	D. A. Morgan	Wentworth	275
Wilcannia	M. J. C. Tully	Wilcannia	300
Windsor	C. W. Dargin	Penrith	250
Yass and Queanbeyan	J. F. Turner	Yass	275
Young	R. Meadows	Young	275

* 200 of this salary is paid from vote for "Imported stock"

APPENDIX P.

THE following statement is compiled from "The Veterinary Journal," London, and shows the state of Diseases in Stock in Great Britain and Ireland.—

	Pneuro Pneumonia.	Swine Fever.		Glanders, includ- ing Farcey		Rabies in Dogs		Rabies in other Animals		Anthrax.		Foot and Mouth Disease.
		Outbreaks.	Swine slaughtered, or disposed of exposed to infection	Outbreaks	Animals attacked	Outbreaks	Dogs de- stroyed hav- ing been exposed to infection	Outbreaks	Animals Destroyed.	Outbreaks Reported	Animals Attacked.	
December, 1896	None	264	3,495	77	113	21	31	3	.....	46	91	Nil.
December, 1897	None	86	1,929	57	108	18	36	4	..	34	52	
Increase .....	.....	.....	.....	.....	.....	.....	5	1	.....	.....	.....	.....
Decrease .....	.....	178	1,566	20	7	3	.....	.....	.....	12	39	.....

1898.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

AGRICULTURE AND FORESTRY.

(REPORT ON, TO 31st DECEMBER, 1897.)

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

The Under Secretary for Mines and Agriculture to The Honorable the Secretary for
Mines and Agriculture.

Sir,

In presenting the reports concerning the various branches of the Department of Agriculture, it is my pleasing duty to say that the efforts of the Department to advance the agricultural interests have met with a full measure of success, and that at no time in the history of the Colony have the prospects of the industries allied to agriculture been so promising. Despite the fact that the two seasons covered by the period of this report were among the most disastrous ever experienced in the Colony, the output of farm and orchard products has been unprecedented; and this pleasing circumstance can, I think, be logically regarded as a result of the adoption of better and more effective methods promulgated by the Department, which place the producer at more advantage in combating adversity of season.

The wheat experimentation at Wagga has been continued, and Dr. Cobb has added to his already large contributions to the knowledge of the staple cereal much that is of interest and value. A number of diseases of plants have also been investigated, and the results of this work have been published from time to time in the *Agricultural Gazette*.

Special attention is directed to the report of the chemist. With the co-operation of Mr. W. Farrer, of Queanbeyan, to whom the thanks of the Department are due, Mr. Guthrie has conducted a series of investigations to determine the milling qualities of wheats and the nutritive value of flours. As the immediate result of this work, the Department is in a position to pronounce definitely upon the milling quality of any variety of grain. Many of the leading millers of this and the other colonies have taken great interest in the experiments, some having sent representatives to study the methods. In conjunction with the purely experimental work the chemist has been enabled to demonstrate the practicability of adjudicating upon wheats entered in prize competition on the basis of their flour product. The Agricultural Societies in the wheat districts have been so favourably impressed with the utility of the system that it is now customary for wheats recommended by the judges employing ordinary methods, to be submitted to the milling test before the awards are made.

Much valuable work in the analysis of soils, fertilisers, wines, water, and other matters has also been done, and it is a matter for congratulation that the farmers and orchardists of this Colony have as many opportunities for sound guidance in the purchase of pure fertilisers as they could possibly desire.

The investigations of the Scientific Staff in the life-history and treatment of the numerous pests and diseases of fruit, farm crops, and stock have enabled the Department to disseminate advice as to the most effective and economical means of mitigating the ravages and checking the spread of the vast army of pests that, unmolested, would soon devastate our orchards and farms. Judging by the success that has attended the methods of treatment adopted for several of the more serious diseases, there is in my mind

*82—A

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not the slightest doubt that if some alteration could be made in the present state of affairs, under which the efforts of the careful agriculturist to rid his place of pests are nullified by the inertness of a neighbour, whose neglect affords the pests a safe refuge and breeding-ground, this Colony would soon enjoy immunity from some of the parasites that are a source of constant trouble and apprehension. The legislative machinery which it is hoped will shortly be provided will do much to strengthen the hands of the Department and the agricultural community in coping with pests; and it is also satisfactory to be able to say that throughout the Colony there is evidence of a widespread and rapidly increasing desire for information, and a determination to take active steps to exterminate the evils. The growers are also beginning to realise the advantages that accrue from deeper and more systematic cultivation with application of manures, and there can be no question that ere long the pests may be kept well under control.

In addition to the Hawkesbury Agricultural College a limited number of students are received at the Wagga and Bathurst Farms, where the curriculum is of an essentially practical nature. Instead of the alternation of days in the class-room and field, every day is devoted to field work, and in the evening the manager, and, as opportunity occurs, one of the specialists of the Department, deliver lectures on subjects for examination. The class of lads admitted are of a good stamp, and already several of them have begun the practice of their calling either on holdings of their own or the properties of their parents.

The area under cultivation at each of the farms has been gradually extended, and, as funds became available, buildings, stock, and implements have been added to, until now in these estates the Government possesses most valuable assets. The interest taken by agriculturists in the experimental work does not abate. Indeed the farming community place so high a value on the object lessons the farms afford that it is now the practice to organise parties periodically to visit the farms and spend the day inspecting the crops and questioning the experts.

The introduction of new crops and methods into remote districts has been further promoted by the exhibition at Agricultural Societies' shows of produce from the various farms. Such exhibits are generally the most attractive object of the show, and the officer in charge is kept busy answering enquiries and distributing seed for trial. The orchards connected with the College and the different farms are in a flourishing condition, and reflect credit on the fruit expert and the orchard managers. At Wagga the area under trees has been considerably extended, and during the present season a large quantity of fruit will be available for the purpose of drying and preserving in other ways. In all operations the students assist the manager, who is thus enabled to give the lads a thorough grounding in cultivation, pruning, harvesting, and other operations necessary to secure success in orchard-keeping. During last year several important changes have been made in the personnel of the College and farm staffs. The transfer of Mr. J. L. Thompson from the position of Principal of Hawkesbury Agricultural College to that of Travelling Instructor in Agriculture, has afforded a means whereby the agriculturists in the more remote districts can receive the benefit of the personal advice and practical demonstrations Mr. Thompson is so eminently qualified to give.

There is no industry that has advanced with such rapid strides during the past few years as dairying. The introduction of the factory system and creameries in the North-Coast and other comparatively new districts marked a new era in the butter production of the Colony, and created a desire for expert advice that could only be met by the appointment of a specialist trained in the modern dairy schools of the countries with which our producers must compete. Since his appointment the greater part of the Dairy Expert's time has been occupied in visiting districts to advise the farmers as to the arrangement and equipment of factories and creameries, and how to improve and increase the productiveness of their herds.

In order to afford those interested in the dairy industry an opportunity of interchanging ideas and discussing problems of vital concern to the future trade of the Colony, a conference was convened in July last. About 150 representatives nominated by the Agricultural Societies assembled, and the results of their deliberations are embodied in a report in pamphlet form, which has been distributed throughout the Colony.

The progress of the dairy industry is assured, and with the skill and enterprise that is being every day brought to bear upon it, but little time will elapse before the butter and cheese of New South Wales will take high rank in the markets of the world, not only as to quality but in volume.

Another industry which promises shortly to attain large proportions is viticulture. The area in this Colony suitable for the production of grapes for wines of all types is practically unlimited; and it is gradually becoming recognised that the pure wines of New South Wales have a delicacy of flavour and sound wholesomeness that must inevitably secure for them due recognition.

The appointment of a graduate of one of the large viticultural colleges in Europe to advise the vignerons as to the cultivation of the vine and the application of more scientific methods of wine-production has been much appreciated by those engaged in the industry. The phylloxera pest, which proved so disastrous a few years ago in Europe, and, unfortunately, appeared in this Colony also, has received unremitting attention; and in the few places in which the insect has been discovered in the counties of Cumberland and Camden (to which it is almost certain the pest is confined) the vineyards have been treated with carbon-bisulphide and rigorously uprooted. Three inspectors, under the immediate direction of the viticulturist, are constantly engaged in the examination of vineyards in the infected counties; and as the Vine Disease Act prohibits the introduction of diseased vines from abroad, it is confidently hoped that the disease will soon be exterminated. As a practical measure of protection against the inroads of this pest, the Department has secured from France half a million cuttings of phylloxera-resistant varieties for use as stocks in the planting of new vineyards.

It had long been felt that the subsidies granted to agricultural societies were not being employed in all cases exactly in the way it was originally intended such funds should be used. In order to hear all that could be said on the matter by those most prominently identified with the management of societies and the disposal of subsidies, in July last a conference of representatives met at the Hawkesbury Agricultural College. About 135 delegates were present, and, in addition to the settlement on a new and more satisfactory basis—subsidy to be paid on amount actually devoted to prizes for the encouragement of agricultural, horticultural, and pastoral enterprise—opportunity was taken to discuss a variety of topics of agricultural interest. A full report of the proceedings was also prepared and distributed.

During the year the Board for Exports was transferred to this Department, and has done much to promote the export trade in several important lines. The shipment of fruit despatched in cool chambers was eminently successful, but the Board last season, I regret to say, experienced failure in the effort to demonstrate the practicability of shipping in the ordinary hold of the vessel.

The possibilities of the export trade of this Colony are inconceivable, and with the facilities the Board provide there is every reason to predict that, at no distant date, their efforts will be rewarded by this Colony assuming the leading position in the export of Colonial produce.

The business transacted in connection with the packing and shipment of hares, rabbits, and poultry has already been sufficient to recoup expenses to the Department, so that it can readily be seen that under the present system the producers of the Colony will be enabled to enjoy all the privileges and advantages of export supervision and handling of produce without the general community having to contribute to it.

The *Agricultural Gazette* has maintained its position as the principal channel through which the results of the investigations of the scientific staff and experimenters are conveyed to the agricultural community, and the demand for it is steadily increasing. In the issue of agricultural literature the Department now enjoys an unrivalled place in these Colonies, and that the people for whom the work is prepared are with the Department in the publication of it is instanced by the remarkable sales of the handbook on farming and fruit-growing issued early last year.

In conclusion, I may say that the efficiency of the Department is all that can be desired, and on all sides there is evidence of the good results that are following the efforts of the capable and energetic officers with whom it is my privilege to be associated in the promotion of the agricultural interests of the Colony.

I have the honor to be,

Sir,

Your obedient servant,

D. C. McLACHLAN,

Under Secretary for Mines and Agriculture.

Report of the Chief Inspector of Agriculture to The Under Secretary for Mines and Agriculture.

Sir, Department of Mines and Agriculture, 31 December, 1897.

In submitting the accompanying reports of the officers connected with the Department, I have no hesitation in saying that the progress made in all branches has been satisfactory, and that each officer has performed his duties with zeal and enthusiasm, that the work has done much for the benefit of those engaged in agricultural and horticultural pursuits, and I have reason to think that this is appreciated by most of those persons who come into contact with the several members of the Agricultural Department.

The Experimental and Demonstrating Farms which have been established, although comparatively but recently, are becoming of more and more importance and benefit, not only to the districts in which they are situated, but to districts quite remote. The practical lessons taught by improved systems of farming and horticultural practice, the experiments made with various crops, the uses of new implements, and other matters which are carried out are watched keenly, and the information supplied to all who desire to seek it, is gladly welcomed, and will, I have no doubt, be made good use of; indeed, I may say that already changes in old practices are noticeable in many places.

I may state, with a considerable amount of satisfaction, that it has become evident to me that the Agricultural Department is now looked upon as the great centre or bureau for the dissemination of valuable information on all matters pertaining to the various branches of agriculture and horticulture, scientific or practical. Such information would be difficult to obtain without this agency.

In the course of my work it has been my duty, I may say privilege, to meet numbers of persons seeking information in connection with agriculture and horticulture and allied subjects, and it is quite clear that there is a growing desire, and a general feeling that it is becoming more and more necessary to keep up to date with the world's progress in the economy of general farming, dairying, fruit production and its preservation, and vegetable growing. This necessity is becoming more and more forced upon all who are engaged in rural pursuits, the more they are realising that much of their produce must compete, in markets outside the Colony, with the products of other countries, raised with great skill and intelligence. Hence it follows that it is incumbent on the officers connected with the Department to be fully alive to the progress made in the various producing countries in the world, and become thoroughly acquainted with all improved methods suggested or carried out by the vast body of workers, both scientific and practical, who are engaged on problems which from time to time are gradually revolutionising old methods and practices for work which to-day is managed by rule of thumb, guided by traditional knowledge, with chances of frequent failure and loss, may to-morrow, perhaps, through the aid of scientific research, be carried out on sound principles with every chance of success.

The results of observations and experiments made in other countries are doubtless of immense value to us, and can be followed in many instances; but our conditions, climates, and soils are so dissimilar to those in Northern countries, that it is necessary to carry out many experiments under our own conditions, and the results of these, when completed at the experimental farms, should prove of great service to the various districts within which these farms are established.

It is noticeable here as elsewhere that there is a certain amount of impatience for results of experiments on the part of those seeking for information, who seem to be unaware of the difficulties to be met or length of time needed to arrive at correct determinations.

There seems to be every indication, from the progress made in farming, in the increasing area of land put under cultivation, and from the large number of young men who seek admission to the Agricultural College and experimental farm schools, that in the course of a short time there will be a considerable increase in our productions, and I beg to submit that there is every indication of an enormous increase in the productions of other new countries, which must come into direct competition with the surplus productions of the Australasian colonies. The countries I particularly refer to are South American and South African. During the last few years great efforts have been made towards improvements in agriculture and improvements in stock in the Argentine Republic and also at the Cape. To the former we must look to a very important competitor, not only in meat, grain, and wool, but in dairy produce, which, I believe, is largely on the increase; and in the latter country it seems not improbable that fruit-growing for export to Great Britain will become a large industry. These two countries have a considerable advantage over the Australasian colonies in their comparatively short distances from the world's great market.

In Canada, such improvements and advances are being made in the dairying industry that, although I believe cattle require to be hand-fed and housed for several months during the winter, it seems probable that butter and cheesewill be made for export throughout the year.

No efforts and no expense are being spared by the Governments of the world to further improvements and education in rural industries; but I think that the work carried out by the Agricultural Department of New South Wales during the past eighteen months will compare favourably with that effected in other countries.

I have every reason to think that the information diffused through the medium of the Departmental publications—the *Agricultural Gazette*, the various pamphlets issued, and the *New South Wales Farmers and Fruit-growers' Guide* has proved most useful to the readers. The *Agricultural Gazette* has maintained its high standard both for its scientific and practical papers; and it is pleasing to know that many of the articles have been republished, not only in Australasian, but in the papers and periodicals of other countries.

The

The lectures and demonstrations given in the country by those officers who are skilled in particular branches of science or practice connected with agriculture and horticulture, have been very favourably received. Practical demonstrations are evidently the most popular form of lectures, and are preferred to simply oral lectures.

The work in the Forestry Branch, which has been chiefly of a routine character, has been carried on satisfactorily. Mr. Hay has effected many improvements in the clerical work to facilitate matters, and doing away with the necessity to retain any more old papers that can possibly be avoided.

With respect to the field work, I may say that forestry, in the proper meaning of the term, cannot be carried out, with any prospect of success, in a systematic manner until timber reserves are conserved and set apart absolutely. At the present time, forest reserves are liable to be revoked at any time, so that any attempt made to work a forest on proper forestry principles may be rendered useless.

During the past year there has been some revival in the timber trade, and there seems to be every prospect of a large trade arising with Great Britain and other European countries, and, perhaps, with the United States and Africa; but, if so, in my opinion, in a very few years all timber of any value will be cleared off. The quantity of really good, sound, hardwood timber available in the Colony is generally very much over estimated. Immense damage has been caused, from time to time, to standing timber by bush fires. Such damage is not always apparent at first glance or until the trees are carefully examined.

The supply of timber inland, in the western part of the Colony, is becoming more and more scarce as settlement extends; and but little, if any, idea of preserving sheltered belts or timbered areas for future building, fencing, fuel, or other purposes seem to obtain amongst the settlers.

I have noticed the evil effects of injudicious clearing away timber in various districts in this Colony, and, I think, every effort should be made to prevent the wholesale denudation of large areas, even by legislation, if this cannot be effected otherwise.

I have the honor to be,

Sir,

Your obedient Servant,

WALTER S. CAMPBELL.

The Under Secretary.

Report of the Pathologist..

I beg to state that the work of my branch of the Department of Agriculture has progressed steadily at the special laboratories which have from time to time in past years with your approval been established under my direction. These laboratories are located in different parts of the Colony, as follows :—

- | | |
|--------------|---------------|
| 1. Sydney, | 4. Pymble, |
| 2. Bathurst, | 5. Bong Bong, |
| 3. Wagga, | |

and are devoted to various purposes, according to their locality. Some of the work in each has, during the time since my last annual report, become sufficiently advanced to warrant the publication of the results, and accordingly articles setting forth the results of my investigations have from time to time been inserted in the *Agricultural Gazette of New South Wales*.

Without going into details it will suffice to say that these original articles cover a wide range of subjects, and fill nearly 200 pages of the above publication, and are illustrated by over 300 original illustrations and several plates, one of the latter coloured.

The following is a partial list :—

- The Hardness of the Grain in the principal varieties of Wheat. 22 pages, with 28 illustrations. *Agricultural Gazette*, Sydney, 1896.
- The Relative Hardness of Australian and American Fife Wheats. 8 pages, and 28 original illustrations in the text. *Agricultural Gazette*, Sydney, 1896.
- Notes on the Colour of the Grain in different varieties of Wheat. 4 pages, no illustrations. *Agricultural Gazette*, 1896.
- The Common Crow. 14 pages, with one original illustration in the text. *Agricultural Gazette*, Sydney, 1896.
- Experiment Work in Agriculture. 25 pages, with 49 original illustrations in the text. *Agricultural Gazette*, Sydney, 1896.
- Cause of an important Apple Disease. 2 pages, with 1 original figure in the text, and 1 original plate. *Agricultural Gazette*, Sydney, 1897.
- Some useful Observations on Germinating Wheat. 3 pages, with 1 original coloured plate. *Agricultural Gazette*, Sydney, 1897.
- A Method of Using the Microscope. 5 pages, with 3 original illustrations in the text. *Agricultural Gazette*, Sydney, 1897.
- Letters on the Diseases of Plants. 54 pages, with nearly 100 original illustrations in the text, and 1 original plate. Disease of wheat, maize, plum, apple, potato, citrus fruits, peach, nectarine, grape, onion, timber, with an account of root-gall, and an improved method of preparing Bordeaux mixture. *Agricultural Gazette*, Sydney, 1897.
- Abandoned Orchards of Cumberland County. 7 pages, with about 40 original illustrations. *Agricultural Gazette*, Sydney, 1897.
- The Sheep-fluke. 40 pages, with 1 plate and about 30 original illustrations in the text. *Agricultural Gazette*, Sydney, 1897.
- The "Brush" in different varieties of Wheat. 5 pages, with 28 original illustrations in the text. *Agricultural Gazette*, Sydney, 1897.
- The Grading of Wheat. 8 pages, with 33 original illustrations in the text. *Agricultural Gazette*, Sydney, 1897.

About half the illustrations were drawn or otherwise prepared by myself, and nearly all the rest by Mr. E. M. Grossé, under my direction.

Sydney

Sydney Laboratory.

The chief laboratory is located in Sydney, and all the others are worked from it as a centre. This is a natural and satisfactory arrangement. The central laboratory, in addition to its own special work, takes over from the branches the publication of all results of investigation. It also serves as a receiver of all work that can be conveniently transferred from the branch laboratories. Most of my correspondence is conducted from this Sydney laboratory. The nature of this correspondence is fairly well indicated in the above pamphlet, entitled, "Letters on the Diseases of Plants," the same being, in reality, largely a compilation from my letters to correspondents in various parts of Australia. The number of letters and reports is not far from one thousand, and the official papers otherwise dealt with number also toward one thousand.

Wagga Laboratory.

This is a more commodious brick building, which has been constructed in an economical and substantial manner, and is generally admired, particularly on account of its beautiful, comfortable, and commanding location. It is practically fire-proof, and consists of eight rooms each a 15-foot cube. There is a cellar of similar dimensions. The top is surrounded by a parapet 4 feet high, and as the roof is of concrete and flat, it affords a fine working space, which is reached by stairs, and also by a block and tackle for conveniently and quickly hoisting any desired loads. The whole is surrounded on all sides by a commodious verandah and balcony. The rooms have been designed for their special purposes, as, for instance, that devoted to microscopy being carefully lighted and supplied with steel pillars to carry the instruments, these pillars being set in cement free of the building, so as to avoid tremor. The work carried out at Wagga is mainly in connection with wheat, and the publications in the above list, which have issued from this laboratory, are the result of years of systematic experiments on consecutive crops. Numerous investigations of an important nature are in progress at the Wagga Experiment Farm, which will yield the results in due course; in fact some are even now on the verge of completion, such as the relative value of large and small seed, the average weight per bushel of the various kinds of wheat as grown at Wagga, &c., &c., &c. Various experiments with manure are also yielding results of great economical importance to Australian wheat-growers.

Bathurst Laboratory.

This laboratory, located near the Bathurst Experiment Farm, is now in working order, and already some very interesting results have been obtained here as announced in my pamphlet on the sheep-fluke mentioned above. In the near future, no doubt, other results of investigations which have been recently inaugurated at Bathurst will amply justify the founding of this particular experiment farm. So far as my branch of the Department's work is concerned these investigations will be directed towards the solution of various problems connected with the diseases of stock, though a number of other lines of experiment will also be undertaken. Soon "Logan Brae," the building in which the laboratory is located, will be heard from to good purpose.

Bong Bong Laboratory.

This laboratory has now been practically dismantled, and the sheep-fluke and other investigations will in future be conducted at Bathurst.

Pymble Laboratory.

This is located in my residence, and with your special permission for the time being, regarded as a departmental laboratory, which, however, I would like to add, costs the Government nothing. Its function as a temporary laboratory is to make inquiry into the diseases of citrus fruits, and its voice has been heard to some purpose, I am credibly informed, in "The Abandoned Orchards of Cumberland County," and the pages devoted to the diseases of citrus fruits in my "Letters on the Diseases of Plants." From it, as headquarters, also were conducted the signally successful experiments on curing two important citrus diseases, carried out under my direction by Mr. W. C. M. Owen, of Pennant Hills, and described by him in the *Agricultural Gazette*.

APPENDIX.

Experiment Work on the Sheep Fluke.

The work conducted by me having for its object the mitigation of the losses due to the sheep fluke has been vigorously carried on during the last half of the year 1897, at these places,—Sydney, Bathurst, and Moss Vale. The Sydney work has been mainly literary and artistic, and the extent and nature of the same may be fairly gauged by the publication entitled "The Sheep Fluke," consisting of thirty-two pages, with twenty-nine original illustrations in the text and one original plate. This is to be continued. This pamphlet though only recently published and not yet complete has been already extensively reviewed and quoted in various parts of the world, owing no doubt to the fact that the recommendations for the prevention of the disease are clear and reasonable, and to some extent quite novel. The succeeding parts of this treatise yet to be published have the same characteristics. The writing, proof-reading, designing of blocks and supervision of the artistic work connected with this article occupied about two weeks out of last half-year, though the facts presented are the accumulations of years. Contrary to what is usually the case none of the drawings for this article were prepared by myself; they were all drawn by the hand of Mr. E. M. Grosse for the most part from my designs or photographs, and under my constant personal supervision. The high quality of Mr. Grosse's work is well shown in these illustrations.

The work done at Bathurst though brief and occupying only about a week has been productive of very useful and striking results, showing the symptomatic value of the eggs of fluke as found in dung, and I confidently expect to use the facts disclosed by the Bathurst examinations to great advantage in diagnosing the disease in ordinary flocks, and especially in stud sheep. The sheep sent to the Bathurst Experiment Farm from Cobarr for the purpose of this examination proved to be very suitable indeed. I have to acknowledge the assistance of Mr. E. M. Grosse also in this work.

The

The Moss Vale experiment is one to determine the utility or otherwise of a certain alleged cure for fluke, and has occupied over a week of my time during the last six months, having cost me also five special journeys to Moss Vale and back from Wagga. The work is not yet completed; I doubt if it was wise to employ my services in this connection. As I pointed out at the outset, in the light of past experience the result was almost a foregone conclusion. Had not Mr. Bruce been disabled so as to be unable to be present at some of the tests, I should certainly have absented myself. As it is, I have attended all the meetings and made myself responsible for checking the main system, viz., the presence and quantity of fluke in the treated and untreated sheep, having so far personally removed and noted each parasite from each diseased liver. Again, I have given personal attention to the condition of the experiment paddocks used, in order to settle definitely the matter of infection during the progress of the experiment, with the result of proving that all stages of the fluke are present in both paddocks. I have proved the snails of both paddocks to be infested with the intermediate stages of the fluke, having incidentally had the pleasure of exhibiting these interesting creatures to yourself and others.

It was the discovery of these intermediate forms in a species of Australian snail made by me some years ago that gave the first clue to the actual life history of the sheep fluke in Australia, and thus enabled me to formulate definite and useful recommendations for the prevention of fluke having a scientific basis.

Diseases of the Citrus Tribe.

Some months ago by your sanction my private laboratory at Pymble was converted to Departmental use for the purpose of investigating the diseases of the citrus tribe. During the last six months those investigations have been prosecuted, and about two weeks of my time has been thus spent. Evidence of the success of this work may be obtained by consulting the article on "Melanose, a Disease of the Orange," written by Mr. Owen, J.P., of Pennant Hills, which gives an account of his signal success in economically curing this disease under my directions. I visited Mr. Owen's orchard and drew up a plan of procedure, showed him my methods of preparing Bordeaux mixture, and from time to time spent a day at his orchard when the spraying was going on, and also inspected the result of his work. He also submitted his proof to me, but I did not think best to alter anything he said. I contented myself with preparing the illustrations, to which I beg to respectfully call your particular attention, as giving another signal illustration of the value to the producers of the Colony of reliable advice based upon scientific research. When the orange growers first called my attention to their losses from this disease its nature was wholly unknown, and, what is worse, was supposed to proceed from a cause altogether different to that which my examinations revealed. The result of my examinations is given briefly in the pamphlet entitled "Letters on the Diseases of Plants."

Weight per Bushel of the Grains of different Varieties of Wheat.

This subject has formed matter for special attention during the last six months, more especially because the accumulated observations of four years at Wagga have now enabled me to give reliable averages. The observations extend over such a number of years and variety of seasons as to give them trustworthiness, and when it is remembered that the weight per bushel is one of the principal items in determining the worth of a sample of wheat, the value of these results will be duly appreciated.

In many cases, in fact I believe in most cases, the final decision of the wheat judges at our agricultural shows is determined, at any rate where the competition is close, by the weight per bushel, the highest award being assigned to the sample that "goes the most" to the bushel. It is well known that these heavy samples are good flour producers, and they are much sought after by millers, who, as a rule, avoid light and shrivelled samples. It is, therefore, important to farmers to know what varieties of wheat, during a succession of seasons, will give the heaviest samples. As my results are obtained from samples specially grown for the purpose under scientific control in the principal wheat district of the colony they have additional value for that reason. These results are now almost ready for publication. The time occupied in this connection during the last six months was about one week.

The brush of Wheat Grains.

This minor article occupied about a week of my time owing to the large number of measurements which were necessary previous to the construction of its tables. It consists of four pages and contains twenty original illustrations.

The grading of Wheats.

This minor article containing five pages and many original illustrations on six plates, also occupied about one week's time. The results published are by no means so unimportant as might be thought. Not that farmers and millers will give them very much attention (though I find the latter to be already considerably interested) but the graphic way in which the results are presented have given food for thought among those who are making a special study of wheat. The variation in the size of the grains in samples of wheat has been too much disregarded, not only by growers in their seed, but also by analysts and others in their experiments, for not only are the small grains poorer as seed, but they are also poorer in many other ways that effect the experimenters' results. In future I hope to see much more attention given to this matter. The sieves which have rendered me such yeoman service in my experiments, should, I am convinced, be found and used everywhere that wheat is experimented on. When this is the case, and not till it is the case, will the results of experiments cease to be rendered uncertain by lack of an obvious precaution. Not until we know what proportion of the grains of treated samples are small and what proportion large shall we be able to accurately compare the results. In consequence of the growing importance of this matter, larger and more accurate sieves have recently been made at the Wagga laboratory under my supervision. I might add that during the last five years no instruments in the Wagga farm have been in such constant use as these sieves, and it is with great pleasure that I can now say that similar sieves are being used elsewhere in consequence of the publication of the results of the Wagga Farm experiments.

Large and Small Seeds.

For four years experiments on a large and most accurate scale have been conducted at the Wagga Experimental Farm on the relative value of large plump seed as opposed to small or shrivelled seed. Where rust shrivelled seed could be procured it was given preference over the small pinched seed, but some years it has not been possible to secure small and shrivelled seed that I could be sure was such owing to the attacks of rust. Under such circumstances, seed, small or shrivelled from other causes, was used. It is needless to say that all these experiments have been conducted in the careful manner described in my pamphlet on "Agricultural Experiment Work," which has now become so well known through reviews in leading journals in various parts of the world.

During the last six months I have spent about three weeks in this connection. The experiments have been continued with striking results, and the same are now being prepared for publication. The number of weighings, gradings, and calculations in connection with these experiments is enormous, and much delays the publication. But as the results are now assured, I am very glad to be able to express the opinion that the Department will be soon in a position to deliver a death-blow to the hoary fallacy that small and shrivelled seed is as good as any—a fallacy which still finds advocates in places where it is astonishing to see them. More than this, the Department will, as the result of these experiments, be able to say definitely how much can be profitably spent in improving a given sample for purposes of seed. It will be at once seen that this latter information will be of great practical value.

In connection with these experiments you caused to be collected from all parts of the Colony, at my request, samples of wheat as they were being sown in 1897. During the last six months these have been graded and weighed and otherwise examined, and in this connection some days of my time have been consumed. The results will be of great interest when compared with those of the large and small seed experiments, as I shall be able to say, concerning the seed of each district of the Colony, how much ought to have been sieved out and rejected as such.

Manure Experiments.

These experiments, begun four years ago, have been continued in full during the last six months and the operations of the season have been brought to a most successful close, altogether about three weeks being so occupied. The results of these years of experiments are now assured. It only remains to tabulate and arrange them, and prepare the necessary illustrations. The results are very striking, and will prove most useful to the farmers of the country. No experiments at the Wagga Experiment Farm have attracted so marked attention as these, and this attention has increased from season to season.

Nomenclature Plots.

This plot has been continued this season and has proved itself even more valuable than heretofore. Improving this plot and preparing from it a set of samples for the Indian Government occupied my time for the best part of a week during the last half-year.

Age of Seed Experiments.

These experiments have occupied my time for the better part of a week. They arose from the fact that upon inquiry I could get no satisfactory evidence of the rate at which wheat deteriorates in value as seed. Opinion varies all the way from belief in the vitality of seed found in Egyptian mummies to doubt as to the value of seed grown year before last. As I have saved seed each year for some years I determined the vitality of the samples by the row system. My seed having been kept in a uniform manner was eminently suitable material for this experiment. Of course this year's work only constitutes a beginning. I may say, however, that the results of this season alone show that if seed wheat be kept in a warm, dry place it deteriorates in value very little in five years. This suggests the feasibility of keeping good seed over from season to season so as to have a supply on hand against a season when all the wheat, being ill-grown, is inferior for seed. The cost of storing and the interest on the value of the stored seed would be less than the additional value of extra good seed in a season when all other seed is inferior, at least within certain limits. I may adduce, as an illustration of this, that it would have been advantageous if the seed at Wagga in 1894-5 had been reserved for 1895-6-7. If in reply it be asked, "Why not procure seed from another district?" My reply would be that I now have fairly satisfactory evidence that seed from another district is not likely to be advantageous unless in addition to the seed being very well grown the seed supplying district be also similar in soil and climate, and that these facts increase the difficulty and cost of getting such seed.

Meetings, &c.

About a week of my time during the last six months has been consumed in attendance at meetings called at the instance of the Minister or yourself.

Correspondence.

The number of letters that have come to me for official attention during the last part of 1897 is considerable, and oftentimes the replies have cost a lengthy examination into some obscure matter. I presume the time thus spent (I do not include here Wagga Farm correspondence or inter-departmental correspondence, but only such as required my attention as an attaché of the Sydney office) would total several weeks. Though the majority of these letters relate to pests and to wheat, others are very miscellaneous and cover a wide field.

Wagga Experimental Farm.

In June, 1897, I received notice from you that as owing to the reorganisation of the Department it was necessary to temporarily transfer Mr. Valder to the Hawkesbury Agricultural College the Minister wished me to take charge of the Wagga Experimental Farm in addition to my other duties there. Hence, as it turned out, during the last six months of the year 1897, in addition to my other duties, the management of the Wagga Experimental Farm and School has fallen to my lot. It will be seen from the foregoing pages that my regular work has proceeded as usual during that time, and that in accordance with

with the Minister's wishes I have taken the management of the farm, &c., as an extra. This has been done by arduous overtime work, involving daily duty from 5 a.m. or 5:30 a.m. to late in the evening or night, and involving also spending on the railway train during six months more than fifty nights, and the travelling of over 12,000 miles by rail.

Concerning the work accomplished at the Wagga Experimental Farm during the abovementioned six months I have to report as follows:—

With your approval Registrar M'Donald was appointed as follows: After a full explanation of the circumstances of the case, with your approval and that of the Civil Service Board I had an interview with the Under-Secretary for Education, who agreed to name from his Department a successful teacher whom he thought qualified to fill the position, as described by me. As a result, Mr. L. M'Donald was selected by the Under-Secretary for Education. After an interview with Mr. M'Donald I reported favourably to his appointment on trial, and this report met your approval. Mr. M'Donald accordingly assumed his duties in August.

One of the first duties assigned to him was the preparation of a complete inventory and valuation of the farm, including all real estate and other property whatsoever. This inventory is now in a forward state, and will, I believe, soon be completed by the new manager, Mr. Valder's successor, without any outside assistance. When complete it will be the first definition of the capital represented by the Wagga Farm and its appurtenances.

The duty second in importance assigned to Mr. M'Donald was the opening of proper ledger accounts against all branches of the farm, such as separate crops, buildings, experiments, &c.

These duties and many others have kept Mr. M'Donald very busy, and it has been only by long hours and very faithful work that he has been able to cope with his duties. I beg to recommend this fact to your attention.

I consider that a fair beginning has been made during my incumbency on a proper system of accounts, but only a beginning. The ordinary work of the farm has been prosecuted with vigour, and this fact has involved such an amount of routine work that the establishment of good accounts has gone on very much more slowly than would otherwise have been the case.

Orchardist.

It was evident that certain changes ought to be made in the orchard, and it was also evident that during my necessary absences from the farm someone should be there who could step at once into my place. Mr. Allen, Fruit Expert to the Department, was therefore appointed to take charge of the orchard and act during my absences. It soon became evident, however, that Mr. Allen's absences on duty were so long and frequent as to leave him little opportunity to relieve me, and this part of the arrangement therefore, practically speaking, fell through. Mr. Allen, however, took charge of the orchard, greatly to its advantage. At my request he made a statement regarding Mr. Alford, recommending him for the position, and this I had the honor to recommend for your favourable consideration, and, with your approval and that of the Civil Service Board, Mr. Alford's services were secured.

Mr. Alford has performed his duties in a very satisfactory manner, and the orchard under his immediate supervision now looks better than it has ever before done.

The students as a body worked industriously as soon as they became used to the earlier hours appointed for work in August, and thenceforth as a rule did themselves credit, and in their final marks satisfied the requirements of the Board of Control as well as could have been expected.

Board of Control.

As soon as Messrs. Allen, M'Donald, and Alford had been appointed I asked Messrs. Allen, M'Donald, Alford, and Mr. Fuller, farm foreman, to act with me as a Board of Control. The Board met each Monday at 7 p.m., I myself acted as Chairman, and Mr. M'Donald acted as Secretary. A record of each meeting was kept by the Secretary. At each meeting the progress of each student was considered and such action was taken as was necessary. Other matters relating to the management of the farm were discussed and acted on by the Board. On all occasions the Board acted conscientiously and harmoniously and, I believe, wisely, and practically no important action due to its voice was taken without a unanimous vote.

Students' Marks.

The students' marks were given as follows:—For outside work they were marked each day on a scale of one to five by the farm employee under whom they were working. Their conduct was also recorded as was also their attendance. Lecture marks were decided on the result of examinations both oral and written. The final mark was ascertained by reckoning the outside mark twice to the lecture mark once. Thus a premium was put upon faithful outside work every day. No amount of spurting in examination work could make up for a low outside mark in field work. Each student was given at the outset twenty conduct marks. So long as he kept the whole twenty his conduct was perfect. One mark was deducted for an unexcused tardiness, two for an unexcused half-day's absence, three for an unexcused whole day's absence. Other marks might be removed for infringement of the single rule. Students are expected to be punctual and diligent, and to behave themselves at all times in a gentlemanly manner.

The Course of Study.

In securing Mr. M'Donald as registrar, an eye was had to his capabilities as a teacher, and when the proper time arrives his acquirements in this line should be utilized. So, also, the preparation of a schoolroom equipped with blackboards and the purchase of microscopes has all looked in the same direction. Inasmuch as the students had hitherto been admitted at irregular intervals and without examination, and were, therefore, a most heterogeneous lot, I concluded that it would be best to put off the establishment of a definite course until at least January, 1898, and all my plans were made to this end. It is my opinion now that no time should be lost in deciding on a definite course of study for the Wagga Farm School which, though short and elementary, shall be suitable to the requirements of the pupils and definitely allotted to the care of certain instructors at definite dates and hours.

The Men.

The farm employees are an excellent set of men. I have found it necessary to make numerous changes only in one department. Although a number of discharges have taken place the number of employees has remained about the same.

Visitors.

At no time during the history of the farm has it had so many visitors during the same length of time as during the last 6 months, over 700 visitors having been received. Of these fully 75 per cent. were farmers. Nearly all these visitors came at their own expense, and often from very long distances. About half came in small parties unexpectedly, though they were none the less welcome on that account, the others came by invitation. Of the whole number about 80 were driven from Wagga to the farm at the expense of the farm. The total cost of catering for these visitors I estimate at about £25—a very small sum of money when the result is considered—for there can be no question that this is one of the ways in which the Wagga Experimental Farm does the most good.

Stock.

During my administration the horses have increased by 2, the cows by 3, the calves by 5, the pigs by 50, the poultry by 15. All the horses and cattle have been branded and registered, so that I was able to hand over to Mr. Valder's successor a full and exact list of all the stock on the place.

Building.

The last half-year has seen the elevator carried on and completed; the new laboratory carried on and completed; the dairy commenced and completed; a school-room, so far as concerns forms, blackboards, platforms, &c., nearly completed; increased shop-room provided for; stairs for barn put under way; fruit-drying plant erected; additions to foreman's cottage made; housekeeper's bath-room and cupboards provided; students' bath-room re-made and placed in a sanitary condition; the old laboratory moved a mile and re-set. The oversight of all this and other construction work of a similar character has consumed a good deal of my time.

Land.

Eight hundred acres of land have been arranged to be dedicated to the farm. Part of this has been fenced. Much fencing has been pulled down, because it was in the way, and placed elsewhere.

Fifteen hundred acres have been ringbarked. This, in my opinion, should have been done several years ago. Most of this was done at about 6d. an acre by our own men.

The new vineyard of 30 acres has been surveyed, fenced, cleared, ploughed one foot deep, and sowed with cow-peas. About a dozen necessary new gates have been provided.

One of the 90-acre paddocks has been wire-netted. A tennis-court has been erected, and a cricket-ground prepared.

About 50 acres of the home paddock have been thinned out and stumped. This long talked of work should be continued.

Ornamental Trees, &c.

Besides several hundred fruit trees already mentioned as added to the orchards, over 2,000 ornamental trees were planted out.

A number of additions have been made to the plans of the farm prepared from Mr. Dimelow's surveys.

Roads.

The larger half of the main road through the farm has been contracted for and finished during the preceding six months. The elevator road has been surveyed by myself and contracted for and finished during the same time. Two much needed culverts, both near the home paddock tank, have also been constructed by our own labour. The arrangement of the various culvert and water channels so as to bring the storm waters as well as possible into the six million gallon irrigation tank, has cost me considerable thought. Some of these water channels will have to be paved in the near future.

Students' Quarters.

The students at this farm have always had my sympathy on the ground of the uncomfortableness of their quarters, and I have done what I could to render them more comfortable. The colour has been altered from red to a light green, nearly white. The roof has been whitened with so-called refrigerating paint. This is admitted on all hands to have afforded considerable relief during the hot weather. I have placed chairs at the dining tables instead of the old and very inconvenient and uncomfortable forms. The bath-room has been lined with metal and ten showers placed instead of three tubs. This improvement has been much appreciated, and in fact the old arrangement, as I found it, was a menace to health, malodorous, and badly drained. Wire screens have been placed on the kitchen, scullery, and dining-room, to mitigate the fly nuisance. A filter-bed has been arranged for, so that water from the home paddock tank may be used for domestic purposes with comfort and without risk. The bath-room has been connected with the home paddock tank instead of with the underground tank, which was an extravagant arrangement so far as water was concerned. I have made an effort to improve the food and cookery supplied to the students, and, according to my own belief and to the testimony of the housekeeper and other officers, have succeeded. The table-waiting at present is also much improved on that of July last. This has been done through numerous changes in the servants, but fortunately each change has been for the better; much improvement could yet be made.

I believe all these improvements have been duly appreciated by the students, as they certainly have by the officers.

Apparatus

Apparatus and Books.

£50 worth of books have been added to the farm equipment, and I hope this nucleus will be quickly added to, as the distance from town is so great as to preclude the use of the local School of Arts. Good books exert a great influence in the right direction.

Twenty-five microscopes have been added to the teaching outfit for the use of the experts in instructing the students. Similarly an enlarging lantern has been purchased. Four telephones have been added and erected. These have been an immense saving in time. Fire buckets have been provided and a fire drill partly devised; this should be completed. A theodolite and levelling staff have also been added to the equipment of the laboratory.

Water.

Besides various improvements mentioned above in connection with the water supply, I have had the pleasure of making the following improvements:—

1. Fenced and wire-netted the home paddock dam, so that stock cannot wade in it.
2. An effective water supply has been laid on to the new dairy.
3. An effective water supply has been given to the piggeries in place of that formerly laid down, which would not work.
4. Aforementioned filter-bed, in place of that formerly constructed, and which was useless.
5. Starting the fixing of two 25,000-gallon iron tanks on the east Sister Hill.

Machinery.

With your approval I have purchased the following machinery:—

1. One M'Cormick right hand binder, another binder (Massey Harris) will be needed next year, if the area under wheat is increased as it should be.
2. Two one-horse hoe.
3. One hand drill.
4. One chaff cutter which with four men will cut 20 tons a day where that formerly employed with six men would cut two tons.
5. One winnower.
6. A disc header, worth £24, has been secured.
7. One horse rake.
8. One oat crusher.
9. Numerous necessary tools.

The various tools on the farm are now branded and numbered, and there are fewer losses than formerly. I venture to express the opinion that all the above are such as to bring credit to the farm.

Provender.

Since August all the meat, milk, bran, chaff, grain, &c., have been delivered or fed out by weight, and all are booked by the registrar.

Shows.

I had the honor to send exhibits to the following shows:—Wagga, Corowa, Albury, Junee, Moree. I am afraid that except at Wagga where the exhibit was under my own supervision the display did not do the farm any good. There was not much produce to display, as the crops had failed. The crops were almost a total failure. Consequently (and this could be done well only at Wagga) other things had to be exhibited. This was so well done at Wagga (*vide* my photographs sent at the time) that about 200 visitors flocked to see the farm that could produce such an exhibit.

Signs.

I have pushed on the matter of signs for our main crops. The new signs which I have had prepared relate principally to the orchard and are a very striking and useful feature of the place, and are the only large crop signs added since those painted for the experiment wheat-plots.

Crops.

In addition to innumerable experiment plots, I have directed the preparation of the ground and the sowing of

150	"	wheat.
150	"	barley.
50	"	sorghum for ensilage.
50	"	cow pea for cow feed and sea.
5	"	miscellaneous garden produce.

and the entire harvest of 1897.

Grain Harvest.

In spite of the fact that the grain harvest of this year was nearly half as large again as it ever was before, it has been entirely removed from the paddocks (never done before and entailing much more labour) and placed in a safe position near the quarters, in scarcely more than half the time hitherto taken. This was done by sharp work over-time for which the men were afterwards given full allowance. This is the way the harvest should always be conducted.

By this enumeration of the various works undertaken during the last half of 1897 at the Wagga Experiment Farm it will be seen that progress has been the watchword; in fact, it is my opinion, and I do not venture to state it without first ascertaining that it coincides with that of those well qualified to judge, that during no period of its history of similar length has the farm done such good work or made so much progress.

Other

Other Work.

In addition to the above-mentioned technical work, I must mention that you yourself and the Honorable Minister for Agriculture, have, on numerous occasions, commissioned me to report specially upon a variety of matters, and to attend and take part in a number of conferences and committees, and these duties have absorbed a considerable amount of my time and thought.

Again, the planning of several of the special buildings erected, or proposed to be erected, on the Wagga Wagga and Bathurst Experiment Farms, has been entrusted to me, and though some of these are in abeyance, because I could not see my way to recommend for these farms any further small make-shift, non-permanent, buildings, yet some of them have taken shape, and I feel confident will meet with general approval. In this connection I would respectfully point out that experiment farms are no longer an experiment in this country. They have justly won popular favour, and have come to stay. In view of this fact, I think that in future all buildings on these farms should be of a permanent character and on a sufficiently liberal scale to accommodate the inevitable growth. Let the housing of valuable officers and materials in tents and shanties become a thing of the past.

The Outlook.

The outlook for useful scientific work for the benefit of agriculture in this country was never before so bright. May the faithfulness with which such work is done be such as to meet the high expectations which have been raised by the great achievements of science in the past.

I cannot close this report without tendering you my congratulations on the high repute your Department has achieved, not only in this Colony, but throughout the world; nor without acknowledging the many official courtesies I have received at your hands, and those of my brother officers of the clerical staff, and of the scientific staff. I am particularly indebted to those officers who have assisted me in my own particular investigations, of whom I may mention Messrs. E. M. Grosse, H. S. Burton, and W. Chambers. The Department is to be congratulated in retaining such talented and faithful officers as these.

My thanks are also specially due to the various managers of the Experiment Farms and their assistants for numerous favours and courtesies, always cheerfully rendered.

Yours, &c.,
N. A. COBB.

Report of the Chemist.

I HAVE the honor to submit herewith a short report of the work done in the Chemical Laboratory of the Department of Agriculture during the years July, 1895, to July, 1896, July, 1896, to July, 1897, respectively, and the half-year July-December, 1897.

The routine analytical work include the following :—

Soils.....	195
Fertilisers	135
Beet-roots	126
Waters	47
Wheats and flours.....	107

The routine work also includes a large number of miscellaneous analyses of agricultural produce, such as dairy produce (milk, butter, cheese), fodders, wines, tobaccos, ashes of timbers, preservatives and insecticides, barks for tannin, &c., &c. Also a large amount of unrecorded work, such as replies to questions, personal interviews, and advice, &c. The number of papers dealt with by the Chemical Branch amounted in 1895-96 to 283; during 1896-97 to 447; and from July to 31st December, 1897, 273.

Early in November, 1896, the premises hitherto occupied by the Department in Macquarie-street were evacuated. The Chemical Laboratory was, consequently, moved to its present quarters in the old Naval Stores Depôt in Lower George-street.

It was not until January, 1897, that the necessary fittings and alterations were completed so that work could be resumed, involving a delay of over two months.

SOIL ANALYSES.

Of the 195 soils examined, 182 were complete analyses involving 15 or 16 separate determinations in each case, the remaining 13 being only partial analyses.

In all cases the farmer is furnished with the result of the analysis together with a report based upon the chemical examination, explaining technicalities and advising as far as possible the best treatment for the crops which it is intended to grow, suggesting appropriate manuring, and replying to any special points about which information may be desired.

The work of tabulating the results of the analyses, hitherto made, in such a way as to show the general characteristics of the soils in the various districts is not being lost sight of.

Owing to the immense area from which the soils come, and the haphazard way in which they are selected, the number of representative soils analysed from any particular district is as yet hardly sufficient to justify any definite conclusion in most districts.

It is hoped, however, that a general description of the soils in the neighbourhood of Sydney, in the counties of Cumberland and Camden will be prepared shortly.

FERTILIZER ANALYSES.

Analyses of fertilisers were undertaken as in previous years for farmers.

These include both examinations of manures on the market, as well as analyses of waste-products regarding which information is sought as to their manurial value.

In July, 1895, a list was published giving the composition of the fertilisers obtainable in New South Wales, together with the price asked for them. This list was revised in May, 1897, and brought up to date.

This table is compiled from analyses made in the departmental laboratory and enables farmers to compare the nature and composition of any particular fertiliser they contemplate purchasing, and affords them some guarantee of their value and purity.

REPORT ON THE WORK DONE IN EXAMINING THE MILLING QUALITIES OF WHEATS.

A considerable amount of work was been done in the examination of wheats, more particularly as to the milling qualities of the different varieties of grain. The following is a short account of this work:—

Historical.

In 1894 Mr. Farrer of Queanbeyan asked me to determine the gluten-contents of certain wheats with which he was experimenting. Mr. Farrer has been engaged for a number of years in cross-breeding and selecting wheats with the object of improving the grain locally grown, and providing one or more varieties of wheat suitable to the different districts of the Colony.

The first batch of samples received from him were simply ground to a meal, and the gluten determined. It was soon apparent that to be of any real value the determinations would have to be made on the flour, and further, that if it were possible to produce on the small scale flour of a quality approaching that turned out by the millers we should be able to determine a number of other points, and, in fact, determine the milling qualities of any wheat with some approach to accuracy.

After some delay a pair of small hand-roller mills were obtained through the Austral-Otis Engineering Company of Melbourne, manufactured by Ganz and Company of Buda Pesth.

In devising and perfecting a system of milling suitable to our small mills, I am greatly indebted to Messrs. Brunton and Gillespie, of Sydney, both for their own help and their permission to their millers to give me their assistance. With their aid a system was devised which enabled us to produce a flour in all respects identical with that obtained in the large mills.

We are now in a position to pronounce definitely upon the milling quality of any variety of grain, no matter how small the amount, as we can mill as little as 12 oz. with accuracy. The flour produced is further examined for colour, strength, gluten-content, and, if necessary, baked into small loaves.

Milling Experimental Wheats.

The experimental wheats harvested by Mr. Farrer early in 1894 were then attacked, and the results, seventy-five in number, were published in the *Agricultural Gazette* for March, 1895.

This batch included a large number of locally-grown wheats, as well as bread-wheats of foreign countries, and some unsuited for bread-making.

These results were, as I had anticipated, of considerable service to Mr. Farrer, as they enabled him to reject many varieties less suitable for milling purposes, and gave him information as to the milling qualities of the grain which he could not otherwise have obtained.

Another batch of about thirty different varieties was put through in 1895—the result of the harvest of that year, and the results published in the *Gazette* of February, 1896.

A third batch selected by Mr. Farrer from his harvest of the present year are now being dealt with, and will be ready for publication in a short time.

As the wheats thus examined include typical grain of the different varieties of bread-wheats, and as these are all of pure strains, and true to name, we have been able to determine, once and for all, the milling qualities of these different groups of wheat when grown locally.

A large number were the product of cross-breeding and selection, and our results show to what extent cross-breeding influences the milling qualities of the grain.

Reason of the "Strength" of Flour.

A number of interesting questions naturally cropped up in the course of this work, one of which, as it was of immediate practical importance, was followed up more particularly. This relates to the "strength" of the flour or its water-absorbing power. This point is of even greater importance than the gluten-content, because a strong flour produces a more voluminous and easily digestible and more nutritious loaf than a weak. Hitherto it was generally assumed that the strength of a flour depended upon the quantity of gluten. The result of our investigations has been to establish the fact that the strength of the flour depends upon the chemical composition of the gluten rather than its amount, those flours being strong which contain a large proportion of the proteid substance glutenin, whereas weak flours contain always an excessive proportion of gliadin, the second proteid of gluten.

The result of this investigation was published by the Royal Society of New South Wales in 1896.

Further experiments have shown that this is also the reason of the greater strength of the so-called patent flour compared with flour obtained by milling closer to the bran, although the amount of gluten in the patent flour is very much lower. In other words, the gluten-cells are richer in gliadin in the neighbourhood of the bran, and of glutenin towards the centre of the grain.

In addition to Mr. Farrer's wheats, a number of wheats have been examined for farmers and others desiring an opinion as to the milling qualities of small samples.

Judging

Judging Wheats competing for Prizes at Shows.

The system has also been called into requisition in assisting in judging prize wheats at shows. At the shows held by the Grenfell P. A. and H. Society in particular a number of samples have been forwarded each year for the past three years to the Department.

These samples have been milled and marks awarded for such points as weight, ease of milling, and colour, strength and gluten of the flour. It is satisfactory to say that in two cases out of the three the independent judgment of the millers and our own judgment coincided in every particular; in the third case the differences were not great.

In other cases of wheat-judging the results have been equally satisfactory, and the method has this advantage over expert judging, that the reasons for the decision can be expressed on a numerical basis, and the personal factor is eliminated.

The question of the suitability of Hard Grain for Milling.

A further point of interest to wheat-growers in New South Wales has been that we have been able to show that certain wheats which were not considered suitable by our millers are nevertheless excellent wheats for blending purposes, and they have the additional advantage that they can be grown in parts of the Colony unsuited to the softer grain to which we are accustomed.

Since I first drew attention to this point our local millers, on account of the small wheat harvest of 1896, have been compelled to import a quantity of wheat to make up the deficiency, and the grain they have imported is exactly this hard American wheat to which I had drawn attention.

They are now prepared to take this kind of wheat for blending purposes, and are distributing it themselves to farmers in districts suitable to its growth.

Improvement in our Local Flour.

That the introduction of this grain has not been detrimental, but the reverse, to the quality of our flour is proved by the fact that whereas our flour used to contain on the average about $8\frac{1}{2}$ per cent. gluten only, with a strength represented by 50 quarts of water to the sack, the flour at present in the market containing this blended American wheat has a gluten content of $9\frac{1}{2}$ per cent. in the average, and a strength as high as 55.

I cannot close this report without expressing my high appreciation of the value of the services of Mr. E. H. Gurney, my assistant, in this work. Since the scheme of milling which he assisted in perfecting was finally adopted, he has milled every sample of wheat examined, work requiring skill and care of no mean order.

Co-operation of Practical Millers.

As an instance of the appreciation of practical millers of our work, I may mention that in August, 1897, two South Australian millers—the head miller of the Adelaide Milling Company in Adelaide, and the head miller of the Port Pirie mill of the same Company—spent a fortnight in the laboratory learning the details of our method and testing wheats. I am indebted to these gentlemen for much valuable information, and they propose to introduce similar work into South Australia.

It is proposed to replace the hand power hitherto used by a small gas engine, by which the amount of work done can be considerably increased. The mills will then be available for commercial testing of samples as well as experimental work, for which they have been hitherto utilised.

WINES.

The study of the chemical nature of the wines of the Colony has been commenced by the examination of the product of several of the northern river vineyards.

The result shows that the pure wines of New South Wales are very similar in composition to those of the best European vintages, the amount of acidity, sugar, and tannin comparing favourably with European wines.

As the value of a wine depends more particularly upon qualities, such as bouquet or aroma, which are indistinguishable by chemical methods known at present, these analyses are chiefly of value in showing that the wines examined are pure, unfortified, and well fermented wines, and consequently a high-class and perfectly harmless product.

SOIL-BACTERIA.

Early in 1896 I obtained the assistance of Mr. R. Helms, to investigate the conditions of nitrification in the different soils of the Colony.

It was hoped that, in addition to the information usually given in connection with the analysis of soils, it would be possible to express an opinion as to the nitrifying power of the different soils, besides being able to contribute something towards our knowledge of their important organisms.

Unfortunately Mr. Helms accepted an offer made to him by the West Australian Government within six weeks of his commencing this work. We were, consequently, unable to obtain any results, except to collate the literature bearing on this subject, and to follow the course of nitrification in several typical cases.

In view of the great importance of this subject, and the practical nature of the results to be derived from a proper investigation into this subject and the kindred one of nodule-bacteria in leguminous plants, I would like to point out the desirability of engaging someone who could devote his time to the bacteriological aspect of the question, which requires a closer and more continuous attention than I am able to give it.

Work of this nature could be very well carried out at Bathurst or Wagga, in connection with other lines of research work, such as systematic manuring experiments, pot experiments, and a number of investigations of a similar nature, which cannot well be carried out in a laboratory where everything has to give place to routine analytical work.

PUBLICATIONS.

The following is a list of the articles dealing with chemical matters published in the *Agricultural Gazette* from July, 1895, to July, 1896 :—

"Table of Analyses of Commercial Fertilisers".....	July, 1895.
"Chemical nature of the Wines of N.S.W." Part I.....	Dec., 1895.
"Soil analysis".....	Jan., 1896.
"Further notes on the Milling Qualities of different varieties of Wheat".....	Feb., 1896.
"Analysis of Hay of <i>Paspalum dilatatum</i> ".....	May, 1896.
"Chemical nature of Wines of N.S.W." (continued).....	June, 1896.
"Note on imported Flours and Wheats".....	Sept., 1896.
"On the absorption of water by the gluten of different varieties of Wheat".....	Sept., 1896.
"On the inoculation of the Soil for leguminous crops".....	Oct., 1896.
"Value of the Phosphate of Lime in Bone-dust".....	April, 1897.
"Table of analyses of Commercial Fertilisers".....	May, 1897.
"Objects and methods of Soil analysis".....	June, 1897.
"Note on the Analysis of Fertilizers".....	July, 1897.
"The Fodder Value of Salt-bush".....	Aug. 1897.
"Agricultural Education".....	Sept., 1897.
"Some Chemical Points in the Preparation of Insecticides, &c.".....	Oct., 1897.
"Chemical notes"—being short analytical and miscellaneous notes on a variety of subjects in October and November, 1895; November, 1896; and June, 1897.	

Also, in conjunction with Mr. E. H. Gurney :—

"Further Notes on the Milling Qualities of different varieties of wheat".....	Nov., 1897.
"Judging the Milling Qualities of Prize Wheats at Shows, &c.".....	Dec., 1897.

In addition to the above, a chapter on "The Soil" and another on "Manures and Manuring" were contributed to the *Farmers and Fruit-growers' Guide*, which appeared in January, 1897.

In conclusion, I wish to express my high sense of the value of the help given me by my assistants, Mr. E. H. Gurney and Mr. C. R. Barker.

F. B. GUTHRIE.

Report of the Entomologist.

I HAVE the honor to submit the following annual report of the Entomological Branch.

I took charge on the 1st of October, and have gone through the whole collection of specimens, named and arranged the lepidoptera, hemiptera, some of the orthoptera and coleoptera, and with specimens from my own collections, set out the finest named collection of scale insects (Coccidæ) in Australia. A large number of specimens of economic value have been received in the course of the year, which have been labelled and put away. With the assistance of the Chief Inspector of Stock, I prepared about 100 postal blocks containing glass tubes, one being sent to each district inspector; by this means we have obtained a fine collection of external parasites, ticks, lice, acaria, &c., many of which having been prepared and mounted by me, for microscopical observation, now form a valuable adjunct to our insect collections, and have been examined by the Inspectors of Stock when wanting information.

At the request of the Secretary of the Department of Agriculture of New Zealand, a collection of live larvæ of the friendly lady-bird beetle (*Cryptolæmus montrouzuri*) were obtained and shipped to that colony, where they arrived in good condition on the 21st of January.

In January, I visited the vineyards of Messrs. Adams, Murray, and Fincham to examine the phylloxera, and during the three following months was engaged for three days every week in the Minto district vine inspecting. I also visited and reported upon white ants (*Termes lactis*) attacking potatoes at Colo Vale; Gosford, to investigate the attacks of "black fly" (a small hemipterous insect) upon peaches and other fruit; Orange, to examine an obscure disease attacking apples; and various gardens in the immediate vicinity of Sydney.

In the latter part of May, the Tweed River was visited in reference to "maize blight" and numbers of insects, many in the larval state, were collected there, and at the Wollinbar Experimental Farm, whose life histories have been worked out under observation in the office.

During the half-year ending 31st December, 1897, I have visited the following places lecturing, and inspecting farms and orchards for insect pests.

Addresses have been delivered by me at Ermington, Corowa, Albury, Thurlgoona, Glen Innes, Tenterfield, Inverell, Armidale, Bathurst, Tamworth, Maitland, Thornleigh, Dundas, and Liberty Plains.

Early in July specimens of the San Jose Scale were sent into the office from Tamworth, which led to me going to Woolomin and spraying the infested trees. I afterwards found this destructive pest at Tenterfield and Glen Innes, later on at Maitland, Berowra, and Gosford. I therefore, under instructions, visited most of the leading nurserymen in the county of Cumberland, and inspected their places, with their permission, but found this dreaded scale in one nursery only.

I am carrying on some experiments with potatoes treated with different chemicals to protect them against the attacks of the potato moth (*Lita solanella*) and have two plots planted—one at Colo Vale and the other at Macquarie Fields.

Since the middle of November I have been acting as Vine Inspector in the Ryde district, as weather permitted, for two days of each week.

A large amount of clerical work has been necessary in reporting upon entomological questions, their identification, life histories, habits, and the best methods of destroying injurious ones.

I have contributed the following papers, compiled from original notes and observations, to the *Agricultural Gazette of New South Wales*, "Forest Moths, that have become Orchard and Garden Pests," Nos. I., II., III., and IV.; "Entomological Notes" (No. 136); "White Ants" (No. 155); the "Fruit-maggot Fly" (*Tephritis tryoni*) No. 163; and carefully compared the drawings of the artist with the specimens.

In conclusion, I would beg to call attention to the serious disadvantage I labour under in the want of room at my disposal for the breeding and observation of insects in their immature stages; an insectarium is a most important adjunct to an economic entomologist's office, and much valuable information is lost through the want of proper equipment.

I have, &c.,

WALTER W. FROGGATT.

Report

Report of the Fruit Expert.

I HAVE the honor to report that I proceeded to Bathurst on the 10th of March last under instructions to take over temporarily the management of the Bathurst Experiment Farm.

Before my arrival, all the crops, with the exception of the maize, had been harvested, and owing to the extremely dry weather which prevailed at the time, anything in the way of experiments was quite out of the question.

Notwithstanding the dry weather, ploughing was pushed forward as quickly as possible under the existing circumstances, and by the middle of May, with the exception of a few acres, all the crops were in.

Certain works and improvements which were in progress or had been approved of were completed during my management, notably :—

Laying earthenware pipes across orchard for purpose of carrying water from the bush paddock to the new tank.

Putting wire netting around orchard fence.

My management of this farm expired on 16th June last, when same was handed over to Mr. A. A. Dunningcliff.

Immediately after giving up the management of the Bathurst Farm I proceeded to the Wagga Farm in the first week of July, and was engaged from then up to the 24th of August, attending to the pruning of the 80 acres of orchard there; giving the students a thorough course in pruning, spraying, and the winter cultivation of orchards, and twice a week for these eight weeks lecturing to them in the evenings on all matters pertaining to orchard work. At the end of this period I examined them, and found on the whole that they had a very fair grasp of this particular branch of the work. During this time also I filled many orders for cuttings and scions from all over the country—the cuttings and scions from each particular variety of vine or tree having to be tied in separate bundles and carefully labelled—entailing a great amount of careful work. At this time also, at the request of Dr. Cobb, and with the assistance of students for staking out, I laid out and attended to the planting of 5 acres of saltbush, since which this work has been carried on by the farm manager, as also the avenue of plane trees from the main entrance to the granary, which were planted by myself and students.

On the 28th July, I was summoned by wire to Sydney, to wait upon the Minister in reference to proposed nurseries, and on my return home the following day, I prepared and submitted a list of the stocks required for starting nurseries on the different farms. On the 6th August, acting on verbal instructions received from the Minister, I wired to Mildura for six bags each of peach and apricot pits, but it was the middle of September before these arrived, owing to delays in transit, so that by the time these pits were in, the season was rather far advanced, and being an exceptionally dry season, a very small percentage only germinated; in fact none of the peach pits planted on any of the farms will come on until next spring. At the Hawkesbury Orchard the apricot pits have come on very well, those at the Wagga Farm which did come up were scorched and killed by the hot winds and want of an adequate water supply. The almonds here have done fairly well, this being the only orchard at which any of the nuts have so far germinated. Only a small supply (about a pint) of orange pips were planted in seed-beds at the Wagga Orchard, but these have come on very well owing to the efforts of Mr. Alford, who carted and carried water to the seed-bed. These will be ready for planting in nursery rows this coming spring.

Trellising Vineyard.—About the middle of September the contract for trellising a portion (about $6\frac{1}{2}$ acres) of the vineyard was let to Mr. Paterson, two systems being adopted, viz., that of Prof. Blunno being the system followed for vine grapes, and my own system being that followed for sultanas and zante currants. The work has been done in a careful and substantial manner, and is a good object lesson for those engaged or wishing to engage in raising grapes of these kinds.

With the approach of the fruit season it became necessary to erect a fumigator for the sulphuring of the dried fruits, and also to purchase the proper trays and boxes for handling the fruit. Notwithstanding certain difficulties no fruit was lost and a very creditable sample of dried fruit has been turned out—the weather being so exceedingly hot and dry that fruit was dried in two days—instead of three and four days, which is the usual time occupied. Besides this about eighty-two quart bottles of apricots have been put down and a few bottles of cherries, the crop being practically nothing this year. I am pleased to have been able to secure such a fair sample of fruit from this dry district during such an exceptionally dry season.

Great interest has been evinced in the system followed and condition of this orchard by all visitors, who receive every attention and information desired.

Hawkesbury Orchard and Nursery.

Four bags of peach and three bags of apricot pits and 50 lb. of almonds were planted here, as well as about $2\frac{1}{2}$ gallons of orange pits. The apricots here have come on exceedingly well considering the season, as also the orange pips; the former will be ready to bud this fall, and the latter to be planted in nursery rows next spring.

The peach pits and almonds have not come up, but will come up in the following spring.

The orchard received a rather severe pruning during the winter, which was necessary, as the branches had been allowed to grow rather wide and spreading. The peach and apricot crop is very light, and no apricots will be available for drying, and but few, if any, peaches. Plums will be a fairly good crop, and drying varieties will be dried, and samples of the various kinds canned. The vineyard here is in very good condition, and a good crop of grapes may be expected. The citrus trees are in much cleaner and better condition than they were six months ago, owing to the improved cultivation and spraying, but little, if any, fruit can be expected this year. Pears have made a fair growth, but as the trees are young, these will also be a light crop. Apples, on this light soil, are not doing as well as if planted in heavier soil, but there will be samples of different varieties. Generally speaking, the orchard is in very fair condition, there being still a little couch grass, which Mr. Waters is trying to eradicate.

Bathurst Orchard.

After finishing the pruning at Wagga I proceeded to Bathurst, and with the assistance of the students there pruned this 30 acres of orchard. I also planted about 250 trees required to be planted to complete the orchard as at present laid out. No attempt has as yet been made to raise nursery stock here, but if water could be guaranteed I think that this district should be specially adapted for growing some of the apple, pear, plum, and cherry stocks recently ordered from France.

This orchard has received as good attention as could be expected from one not under the constant supervision of an experienced orchardist, but this work can receive more attention since my removal here. The trees, however, have made very fair growth, but are too young to produce any fruit this season.

Pera Bore Orchard and Nursery.

The pruning here has been well carried out, and the trees at the time of my last visit (about 1st December) were putting on good growth, excepting the prune trees, which are not doing quite as well as they should. This is partly due to the climate, which is, I fear, rather too warm, and partly to the severe check received in transit from California.

A bag each of peach and apricot pits, and about 30 lb. of almonds were also sent to this orchard for nursery purposes, none of which have germinated owing to the lateness of planting, but these should come up next spring. About a pint of orange pips, sent at the same time and planted in the seed-bed, have come on exceedingly well, and will be ready to plant in nursery rows next spring.

Six hundred orange trees, which were sent on for planting at the Walkden's Bore, I found, on my last visit, to be mostly all dead. Mr. Gorman has no doubt reported on this matter before now. No fruit can be expected this year owing to the trees being too young.

Wollongbar.

About a quart of orange pips were forwarded to Mr. M'Keown, with instructions as to the preparation of seed-bed and planting, and I have Mr. M'Keown's verbal assurance that these have come on very well. As yet I have not paid a visit to this district, but have written Mr. Jackson of my intention to do so the last week of January.

Trip to Mildura.

On the 5th November I started, under instruction, for Mildura, to arrange about securing a supply of buds and scions true to name, for use in budding in the different nurseries this coming fall and spring, and I hope by this means to introduce into this Colony a plentiful supply of those varieties of fruits which are of the highest value commercially, and such as can compete with the fruits of Southern California and Mildura. A detailed report of this visit was furnished on the 22nd of November.

Since the 24th of August last much of my time has been taken up in visiting different districts in order to give practical demonstrations in orchard work, as well as all other information in connection with fruit-growing, detailed reports of these visits having been furnished from week to week. I may mention that wherever I have been great interest was shown in the work, and those interested were of the opinion that as far as this branch of the work was concerned that this was by far the best and most practical means of helping the fruit-grower.

Besides my other duties I have contributed during the last six months, to the *Agricultural Gazette*, several articles, as well as many answers to inquiries—the article on "Fruit Drying," published in the November *Gazette*, being the only reliable one in every detail which I have yet seen published—this having been an especial feature of my work during the past seventeen years.

Before the Christmas breaking-up I prepared a list of questions on orchard work for Dr. Cobb, who was examining the students, and on a revision of their replies I found that most of those who went in for the examination did fairly well.

I examined, at the Hawkesbury College, on the 21st ultimo, eighteen students, and found that most of these also had a fair grasp of the subject.

I have, &c.,
W. J. ALLEN.

Report of the Viticultural Expert.

I HAVE the honor to report on the work accomplished since my appointment in September, 1896, to 31st December, 1897.

My first thoughts were directed to bringing the inspection of the vineyards and the precautionary measures for the eradication of the phylloxera in accord with a proper system, and instructing the inspectors accordingly. This was done through the "Hints for the Inspection of Vineyards," in which is to be found all information that one needs to have in such responsible and important work. The system is becoming every day more efficient, and is inspiring more confidence in the vignerons.

The assignment of a head-quarters to each inspector, so letting each work within a determined zone, makes those officers feel more responsible, and also enables the Department to economise on the service.

Four infected vineyards were detected last year, which were treated with strong doses of bi-sulphide of carbon, after all the growth above ground had been burnt. The insecticide was applied at intervals of three or four days, following special places for the injection, so as to have the ground thoroughly disinfected. The effect of such treatment was most satisfactory. I may say, however, that the second and third infections were amongst the worst I had ever seen before, hence the further precautionary measure of trenching adopted in the three first cases, all the roots being collected and destroyed by fire.

In the fourth vineyard the infection was only slight, and it was treated exactly in the same way as the previous ones, but the trenching of the ground being a costly operation was omitted. Instead, the vines were carefully dug round, all the stumps pulled out, also as many main roots as possible were collected and destroyed by fire.

The stamping out of this pest in Australia may hardly be expected, and the chief fault lies not so much in the insect life itself as in the possibility of inadvertent assistance the spread of the insect may receive through lack of care or knowledge.

Here

Here the pest is more easily controlled than has been possible in Europe. The outlook, however, being uncertain, I strongly advocated the import of cuttings of phylloxera-resistant stocks. A hundred thousand of these will arrive from France next March, when they will be planted in quarantine at the Department's experimental vineyards.

We have a long and interesting study before us concerning their suitability to the different kinds of soils, every true species and every hybrid having some characteristic requirements of its own. Their more or less affinity in getting grafted with our local varieties, their sensitiveness to the presence of a varying percentage of lime in the soil, their exigencies as for depth and physical composition of the ground, &c., &c., are all questions which make this new branch of viticulture a complicated subject, wanting the attention of several years to ascertain to what extent the information that we have got from other countries is of use in ours.

Being well aware of this, I thought that the sooner we started the better, so as to be able to give the vignerons reliable information when a sudden spreading of the phylloxera, which is not beyond possibility, might alarm them.

We may also congratulate ourselves to see the Department of Agriculture of Victoria following our steps and joining us in the import of these vine-cuttings.

When first I was appointed temporarily I went to the Southern districts, thence I proceeded to the Hunter River. A report on this trip sent to the Department appeared in the January *Agricultural Gazette*, referring to my impressions about the quality of the wines, and several objections were pointed out.

The land is too shallowly worked in the Albury and Corowa districts before and after planting, and this is one of the main reasons to which is due the low average yield. In similar climates, hot and dry as that of the Southern districts, and for vines planted so far apart, the soil is always disturbed much deeper, so as to allow the roots to live in a fresher and cooler environment.

It also surprised me to see vines only 15 years old looking as if they were 35, and those of 35 quite exhausted. I thought that it was a question of pruning as well, and at the first occasion I delivered in both districts a lecture on this subject, and gave a practical demonstration in the vineyard.

The lecture began with some general hints on pruning the vine, then four principal systems were illustrated, viz. :—

- 1st. The common gooseberry bush method.
- 2nd. The system named after Dr. Guyot, on single or double cane.
- 3rd. The system named after M. Royat, also on single and double arm.
- 4th. The method Cazenave, modified by Guyot.

The lecture was printed in the June *Gazette*, and entirely reported by some weekly papers of Melbourne.

In November last, I assisted at a quarterly meeting of the Albury Vine and Fruitgrowers' Association. There I was called to answer many questions on vinegrowing and vine diseases, on wine making and sickness of vines. Thence I went for a visit to the Bendigo district, which is the worst seat of infection of phylloxera of Australia. It was necessary for me to go there to see how things were proceeding, in order to be able to take the necessary steps in our Colony accordingly.

During vintage time I was particularly engaged in some cellars of the Hunter River and of the Albury districts for experiment purposes, and on that occasion the *levures pures* received a trial.

The result of the experiments was a new proof added to hundreds more which the European vinegrowers are used to. The *levures pures*, where the vintage is good, and grapes are sound and clean, are of questionable importance; with musts of inferior quality, this pure yeast will cause a purer fermentation, but this fact could not be confirmed last vintage, on account of the season being so favourable for the vintage, throughout which with dry weather prevailed.

In all cases these *levures* answer only to part of the wonderful claimed advantage—I mean to say, that the *levures pures* of a *Château Yquem*, for instance, will make this sort of wine at *Château Yquem*, and only there.

For detailed information on the argument of the selected *levures*, I would direct attention to a special chapter of my "Notes on Wine-making," which appeared in *March Gazette*.

In these same notes the principal arguments are the influence of temperature on the fermentation and precautions to control it; the aeration of the must; the systems of properly making red and white wines and Muscats are separately dealt with in special chapters; also is given a formula of calculation for fortifying sweet wines, besides other general hints.

These notes being quite new, were highly appreciated, and reproduced by some weekly papers of this and the other colonies.

I paid several visits to the different vine districts. I went once to Tamworth and to various other places—on nearly every case at the special invitation of vignerons.

I have not kept record of the papers sent to me from the Head Office, or of the letters addressed to me individually, being from vignerons seeking technical advice, because having been appointed permanently only since May last my office is yet in a way of formation, but I may say that they were many.

During the last six months several important matters have engaged my attention. In fulfilling the appointment of judge in the wine section at the Corowa Show, I had opportunity to note the inconvenience, common to such competitions, resulting from incorrect classification of the different types of wines. This not only detracts from the educational influence of the exhibition, but renders it almost impossible to adjudicate and award prizes. I brought the matter under the notice of the Viticultural Board of Advice, and laid before the Board a report as to the best means of remedying the matter. They concurred with my views, and I am now drafting a wine schedule to provide for a proper classification of wines at the various Shows.

At both the Albury and Wagga Wagga Societies' Shows, I am sorry to say, I detected, by means of chemical test, two prize sweet wines containing salicylic acid, which is not a natural component of wine. Under the circumstances I recommended the refusal of awards. It is gratifying to be able to report, however, that these unsatisfactory exhibits were not the produce of this Colony.

I consider that it is essential, in the interests of consumers, to establish the limits within which the treatment of wines is to be considered legitimate, and, for the guidance of those interested, to draw up and publish a list of the substances which, being most commonly used to adulterate wines, are to be sought and guarded against. Subject to the approval of the Board of Health—the responsible authority in the matter—no time should be lost in giving effect to such a regulation, and so put an end to the uncertainty that exists as to what is to be deemed fair in the treatment of wines. I am doing my best to carry out the scheme, but do not consider it advisable to submit it for approval until my laboratory is set up and I am able to undertake an exhaustive chemical study of the wines of the various districts of New South Wales.

With regard to the Phylloxera service, I am glad to say that during this period no further discovery has been reported, notwithstanding the fact that inspection has proceeded with the utmost care. Of the four inspectors, two have been occupied in examining the vineyards nearest to the recently diseased area, but no trace of further infection has been found. This circumstance does not, of course, absolutely set at rest the question as to the existence of the pest in such vineyards, because it may be in its earliest stages when detection is exceedingly difficult. But I am quite satisfied that in time we shall succeed in eradicating this disease from the Colony, or at all events so localise it as to effectively safeguard the vinegrowing industry.

The question of the establishment of a viticultural college has evoked considerable discussion among those interested in viticulture. Vignerons themselves and those anxious to engage in the industry advocate the movement, which is, of course, natural in a country so well adapted as this for a large progressive viticultural interest.

I reiterate my impressions about the future of vinegrowing of this Colony, and I consider it most promising.

It is a fact that foreign connoisseurs cannot but acknowledge the good quality of the New South Wales wines, or at least of those wines well made and well looked after.

Technical knowledge is generally lacking amongst vigneron, but I may say they are very anxious to follow proper systems when they know how to do so.

The natural factors deserve the most credit for the actual quality of the wines, but, if I may judge by the earnestness of the generality of the vine-growers, skill will before long join nature.

I have, &c.,
M. BLUNNO

Report of the Dairy Expert.

I took up my duties in the Colony on March the 25th, visiting on that day the Hawkesbury Agricultural College. My report on the dairy part of that institution was furnished in due course, and I have now to point out what I did then—that whereas students can get a very fair knowledge of dairy-farming and a sound knowledge of butter and cheese making, the quantity of milk dealt with is not sufficiently large to enable students to get an experience of large quantities of butter or cheese, or, in other words, to fit them to take charge of a factory immediately they leave the College. If, however, the students put in a short course in a factory as assistant managers or some such position, they should then be capable of managing successfully a butter or cheese factory or dairy farm. It is my opinion, however, that as the Government goes part of the way they ought to complete the education of pupils desirous of becoming capable of taking full charge of a factory, and with this end in view I have recommended the establishment of a Government factory dairy in some good dairying centre. This should be self-supporting. Such an institution would also enable the Government to receive all the pupils who apply for a dairying education; at present we are not able to accommodate all the students applying, and considering the great strides dairying is making in this Colony, I consider it a disadvantage to the Colony that there is not a dairy school or schools capable of receiving all that apply. The butter and cheese made at the college are very good, especially when it is borne in mind that various students partake in the manufacture of these articles.

Wagga Experimental Farm.

I have to report visiting this farm with a view to establishing a small dairy there. The construction of this dairy is now complete, and in a short time pupils will be afforded instruction there in butter and cheese making. Experiments in the feeding and breeding of dairy cattle are now being carried out at the Hawkesbury Agricultural College, and it is my intention to do similar work though on a smaller scale at Wagga Farm. The students have also been shown an improved and simple method of analysing milk for butter fat.

It has now been arranged that I shall hold quarterly examinations for dairy students at the Hawkesbury Agricultural College, and that outsiders may enter for such examinations with a view to obtaining certificates of proficiency in dairying.

It has also been arranged that intercolonial examinations shall be held at which successful students will obtain certificates in dairy management which will give their bearers a status of proficiency in any of the Australian Colonies. This is a step in the right direction, as the owners of factories will then be able to see by reference to the examiners' reports of these examinations where to get a reliable manager, and it will also enable managers leaving one Colony to reside in another to obtain employment in the latter. These examinations should also create a healthy rivalry between the managers in the different colonies, and in this way would tend to the advancement of dairying.

I have visited various creameries and central factories in the Colony, on all of which I have submitted reports. The central factories are, as a rule, well managed and turn out good work, but the bulk of the creameries or separating stations which I have seen require some improving.

Improvement is most needed in the handling and treating of the cream before it is despatched to the central factory. The cream requires immediate cooling after it is separated, and this is a point generally neglected. Another point requiring much more attention is cleanliness, and more particularly in dealing with the separated milk. To prevent the propagation of disease, as well as to improve the milk as a calf food, I have strongly recommended that the separated milk tanks or cisterns be scalded and cleaned daily, and also that the separated milk be heated from 185° to 195° F. where possible before it leaves the creamery.

Cattle.

Cattle.

The dairy cattle of the Colony are generally admitted to be in some respects inferior, and with a view to improvement I have suggested that some cattle be imported by the Government. The best dairy farmers on the South Coast have some good herds of milking Durhams, and with a view to breeding from this strain, about twenty-five have recently been purchased. It is intended to put an Ayrshire bull to some of these, and a Durham bull of a milking strain to the others. It is well known that the Durham breed will cross well with almost any other cattle, and it would be well for dairy farmers wishing to improve their cattle to bear this in mind.

I have attended some of the Agricultural Shows in the Colony, including the last Sydney show. The dairy produce exhibited at the country shows I have seen has not been of much moment, but there have been some good individual specimens of dairy cows shown. The Sydney show had a fine exhibit of butter, especially in the export class, and I hope to see this class repeated at future shows. The cheese shown was not of so high a character. Generally speaking, the dairy industry of the Colony seems to be progressing, and there appears a strong desire on behalf of farmers and landowners to further participate in this industry, and for those who select suitable districts, as along the coast, I expect a profitable return.

The greater portion of my time during the half year ending 31st December, 1897, has been taken up in visiting the various dairying centres in the Colony, so that I should be able to see the condition of things, and advise and report thereon. In all cases a detailed report has been submitted to the Department dealing with the cattle, pastures, methods of dairy farming, condition and working of the various creameries and factories, as well as suggestions for the improvement of dairying in each individual case or district.

The following are some of the districts visited :—

Tumut and Adelong, where it was thought it might be advisable to erect a butter factory. Two meetings were held and addresses delivered. Plans were supplied to a Mr. O'Brien suitable for a small butter factory, and I understand one has been erected.

Blayney was visited, the principal object being to advise the formers as to the most suitable building, plant, &c., for a medium-sized factory. Much benefit was derived from the advice given, and the Company were guided as to the best machinery, &c., with the result that a considerable sum of money was saved.

Brisbane was visited for the purpose of judging Ayrshire and Jersey cattle at the International Exhibition. This enabled me to see what some of the Queensland dairy cattle were like. A herd of pure-bred Ayrshires, Jerseys, and South Coast Durhams is being formed at Gatton College, near Brisbane, and I think this is a step in the right direction. No cattle are kept on the farm whose breeding is not known, and by this means the results of careful breeding and cross-breeding can be observed, and much benefit to the state derived therefrom.

The following districts also were visited, in some cases lectures were delivered, and in others advice was given regarding the erection or improvement of creameries or dairies :—Narrabri, Singleton, Albury, Camden, Hay, Grafton, Ulmarra, Maclean, Chatsworth, Lismore, Alstonville, Coraki, and many other centres on the Richmond River, Wyong, Nowra, Berry, Quirindi, Wallabadah, Muswellbrook and district, and the lower Hunter River District.

A considerable amount of time has also been devoted to the delivery of lectures to the dairy students at the Hawkesbury Agricultural College, and to the setting of papers for the quarterly examinations. The general condition of dairying at the College has also had some attention, though I have not been able to devote as much time to this, or to make as many improvements, as I should like. I have introduced the tuberculin test into the College course, and every student has had ample opportunity of learning how to conduct these tests, a point which I consider of much importance to the dairying, as well as to the cattle-raising industry of the Colony.

The pasteurising of milk and cream for butter-making has been started. A pasteurising plant for purposes of demonstration has been placed at my disposal, and already a series of demonstrations has been begun, in connection with the separating stations on the Berry Estate, which promise to be of very great service to the farmers of that district, as by means of pasteurising the cream is brought under control of the creameries, and thus reaches the central factory in a much improved condition when compared with cream handled in the ordinary fashion; also, if the milk be pasteurised the separated milk is rendered a safer, and by being kept fairly sweet, a better food for calves. I have also given some time to writing articles for the *Agricultural Gazette*, which, I have every reason to believe, have been of considerable use in causing farmers to give more attention to some of the important details of dairying, and to prepare their minds for the reception of scientific information, such as the pasteurising of milk and cream, the cause of sourness in milk, and the physical means that may be adopted for retarding or controlling rancidity, whether in milk, cream, butter, or cheese. The question of tuberculosis in our stock has always been dealt with in my lectures, and many farmers now heat the separated milk to a high temperature before feeding it to pigs and calves.

A new departure has been taken in placing the services of pure-bred bulls at the disposal of farmers for a merely nominal fee, and it is to be hoped this will be extended, for I see no greater need for improvement in any department of dairying than in the average dairy cow of the Colony. In my wanderings through the Colony I have noticed on numerous occasions some excellent milkers, traceable to crossing the ordinary cow of the Durham strain with a pure-bred Ayrshire bull (this also agrees with my experience of this cross in the Old World), so that I expect some very good results from the use of the two Ayrshire bulls recently imported by this Department, and placed at the disposal of the farmers.

Complaints are still being received of the treatment which New South Wales butter receives in transit to London, the latest trouble being that the butter exported from Melbourne is delivered to customers in London two days before the shipment, in the same boat, from Sydney. This is a serious question from many points of view. Firstly, it gives the brokers of Victorian butter a handicap over the merchants who handle the New South Wales product. This might cause some of the English importers of New South Wales butter to lose their best orders and customers, and this would result in the importers themselves giving up dealing in an article that loses them trade, and turning their whole attention to goods that do not cause them any such worries or losses. This would have the effect of checking the progress of dairying in this Colony, and would be a general loss to our farmers. There is also the fact that factories situated anywhere near the

Victorian

Victorian border would favour Melbourne as a port of despatch, for they would have the certainty of a prompt delivery on arrival in London. Needless to say, this would react on the Railway Department of this Government. The Victorians have a Commissioner in London to look after their exports, and it is my opinion this Colony should have like representation. If the Government does nothing in this way, the merchants will be bound to unite, and provide such representation, in order to protect their interests and their industry. Hoping that this whole question of transit and delivery will receive more consideration during 1898.

M. A. O'CALLAGHAN.

Report of the Editor, *Agricultural Gazette*.

In addition to the information that our experts are enabled to supply as to the results of their investigations for dissemination by means of the *Agricultural Gazette*, care is taken to keep the farmers in touch with what is being done to advance agriculture in other countries. In exchange for the journal there are received by each mail from England, America, France, Canada, Germany, Denmark, Italy, Russia, and other countries of agricultural importance, bulletins and reports of the latest discoveries and methods that have been successfully adopted for the advancement of any particular branch of agriculture. This information is published in the *Agricultural Gazette*, so that farmers and others may see for themselves the road to take in preparing for competition with other countries. The *Gazette* is distributed free to 4,400 agriculturists, and is sent to all agricultural societies, Schools of Arts, libraries, and similar institutions throughout the Colony, where it is available for perusal by those in need of information. Some subjects dealt with during the period of this report were the cultivation of fruit for export purposes; treatment of noxious weeds; illustration and description of grasses; economic plants and timbers; treatment and illustration of diseases of crops and animals; trial of various crops and methods of culture under varied conditions at the Experimental Farms; and many other topics applicable to the needs of agriculturists. The monthly notes on vegetable growing and orchard culture have been continued and form an attractive feature of the publication. In all 280 articles—most of them illustrated, and a large number of general notes on subjects of importance that have from time to time come under observation, have appeared. Reprints of any articles which have met with a greater demand than could be supplied by means of the limited issue of the publication have been prepared; and these pamphlets have done much to lessen the work of correspondence upon subjects with which they deal.

In January a circular was addressed to recipients of the publication, who were asked to suggest subjects for treatment. Over 3,000 replies of an appreciative nature were received, and the questions asked were so numerous that an additional heading, "Replies to Correspondents," was opened. Since this departure, each month a large batch of inquiries on matters of agricultural interest are dealt with.

The thanks of the Department are due to the gentlemen who are good enough to contribute voluntarily the valuable articles that have been published, and the zeal and enthusiasm of the officers who devote much of their leisure to this work are worthy of commendation. Not only do the agriculturists express their appreciation of the *Agricultural Gazette*, but it is gratifying to note that newspapers and leading agricultural journals of America, Cape Colony, Victoria, Queensland, South Australia, and New Zealand, as well as our own Colony, avail themselves of the privilege of reproducing articles. The process blocks used in the illustration of the articles are also largely availed of, and during the past year over 200 of these blocks have been borrowed for this purpose.

The Farmers' and Fruit-growers' Guide, issued in January last, has been generally appreciated, and two editions have been disposed of.

I have, &c.,

W. H. CLARKE.

Report of the Tobacco Plantations.

The Nemingha Tobacco Experiments.

In July, 1895, Forest Reserve 20636, comprising 15 acres, situated on the eastern bank of the Cockburn River, was placed at the disposal of Mr. Lamb for experimental purposes. It was then a thickly-timbered unenclosed apple-tree flat, densely overgrown with the usual noxious weeds. Contracts for clearing, fencing, and first ploughing were sanctioned 8th August, and the contracts were concluded 12th October.

Trial plantings were made with every sort of tobacco of which seed could be procured. Many difficulties were encountered from the foulness of the ground, the rank growth of weeds, the ravages of insect and fungus pests, imperfect equipment, want of skilled labour, and, more especially, from the memorable heat wave which passed over the colony about midsummer. Nevertheless, about a ton of leaf was cured and bulked, comprising about sixteen varieties. This tobacco is now placed in the cool building recently erected, and will be packed as opportunity serves. It shows, as might be expected from the number of sorts grown, many varieties of form, colour, and texture, which have all, however, one characteristic in common, viz., it is all powerful tobacco. Samples were submitted to the trade in Sydney on 9th September, and some of them obtained high commendation; but the parcel, containing as it does so many sorts, is not readily salable, except in a brisk market. Several of the leading firms dealing in tobacco report that at present there is no sale for tobacco-leaf in Sydney. Mr. Lamb, therefore, proposes to pack each kind separately, and keep it in cool storage until the market shall be somewhat relieved of its present glut.

Mr. Lamb has, from the date of his first appointment, condemned the rich river flats so much favoured by tobacco-growers in this Colony, as being unfitted to produce any but the coarsest and commonest quality of tobacco-leaf, and has quoted the Custom House returns showing the great increase in our importations of foreign manufactured tobacco, as supporting his contention. On 6th May, 1896, he reported to the Department that he would rather abandon the Nemingha experiments except for the consideration

consideration that our tobacco-growers were so wedded to alluvial flats for the crop that it would be impossible to convince them of their error, and that he thought he could, by adopting a different system of cultivation and a different variety of seed, produce even on this alluvial a price worthy tobacco, *i.e.*, one suitable for the export trade.

In the past season (1896-7) the experiments have been continued, with a view to producing such a style of leaf, with what success it is yet too early to say with any certainty. The crop is now hanging on the poles in the sheds, waiting suitable weather for striking, handling, and bulking it, and it will require at least six months in the bulk to mature and develop its ultimate character. The severe and long-continued drought has been very detrimental, but a partially-cured sample of a new variety, produced by cross fertilisation and irrigated during its growth, which was harvested on the single-leaf system, has been very favourably reported upon by Hugh Dixon, Esq., and certainly shows great promise. It has been named Golden Fleece

Five acres are to be planted in the coming season of this variety, the plants for which are already in a forward condition.

Mr. Lamb reports that, amongst other tobacco experiments which he has tried at Nemingha, he has endeavoured to bring into cultivation the native tobacco, *Meotania huaveolens*, which is common on the banks of the Cockburn River, but so far with indifferent results.

Thirty-five crops other than tobacco have been experimented with at Nemingha, in addition to the twenty-one sorts of tobacco sown; but it should not be overlooked that the season was of so exceptional a character that any conclusions drawn from the results obtained may probably require to be much modified in the light of experience obtained in a normal season.

The Moonbi Tobacco Experiments.

In 1893, Mr. Lamb was employed in visiting and reporting upon the tobacco-growing districts in the northern parts of the Colony, lecturing on tobacco cultivation and curing in centres where lectures were desired, and in giving practical lessons to individual growers who had applied to the Department for his services.

In September of that year, returning from Bendemeer, having some hours to wait at Moonbi for a train, he visited the site at Moonbi then being prepared for a forestry plantation, and being much impressed with the suitability of parts of its soil for the growth of a superior class of tobacco, he sowed a small seed plot there, and reported the circumstance to the Department. In November, the young seedlings having made good growth, the Assistant Forester in charge planted out about 400 of them. They had but scant attention until April, when Mr. Lamb revisited the place and found them growing almost wild, many gone to seed, and many infested with *Peronospora*. He attended to them, harvesting such as were fit, hanging the plants in a temporary shed hastily constructed for the purpose. In the following winter Mr. Lamb made some cigars and cigarettes from this tobacco, which proved of good quality. Small sowings were made next spring with equally good results, and in 1895 Mr. Lamb obtained permission to plant 2 acres of the plantation with tobacco. Adverse conditions worked against this planting, which included about twenty varieties, the object being to find out what variety of the tobacco plant would yield the best results in this soil. Nevertheless, the crop, although small, was throughout of excellent quality. Amongst it was found some cigar leaf and some bright pipe tobacco, but the bulk of it was cigarette tobacco pure and simple.

About 10,000 cigarettes made from it have been distributed, and the reports received concerning them have been, almost without exception, highly appreciative. Both the trade and connoisseurs describe them as far superior to the usual cigarettes purchasable in the shops, and as bearing a striking resemblance to the best grades of Turkish and Egyptian cigarettes.

An exhibit, comprising many varieties of leaf grown from seed obtained from Europe, Asia, America, and the Southern Pacific, was prepared and is now on view at the Museum of Agriculture and Forestry in the Domain. It is probably the finest collection of Australian-grown tobacco ever gathered together.

Samples of this crop of tobacco were submitted to the leading tobacco manufacturers in Sydney, and they were valued at 8d. per lb. all round, the current price for New South Wales leaf at the time being 4d. per lb.

One of these samples impressed one of the leading Sydney tobacco manufacturers so strongly that he authorised Mr. Lamb to endeavour to induce the farmers of the Moonbi district (who had suitable land) to plant 20 acres of that variety, he agreeing to purchase the resulting crop at 1s. per lb. for first quality and a proportionate price for second and third qualities.

Mr. Lamb spent some weeks in endeavouring to induce the farmers to take up this contract, but did not succeed, the chief difficulty being the cost of the sheds necessary to cure out the leaf the required colour. After mature consideration, in order that so great an opportunity should not be lost to the Colony, the Department accepted the contract, and preparations for growing and curing the crop are now in progress. The seed plots have been sown and the young seedlings are so far advanced that it is probable that (with favourable weather) the planting will commence before the end of October.

The first and second grades of this crop, 1895-6, are now in the hands of an eminent Sydney firm who are experimenting with and will report upon them as to their suitability for Sydney trade purposes. Mr. Lamb anticipates that these Moonbi tobaccos will, most of them, prove to bear too close a resemblance to the higher grades of Turkish tobacco to allow of its being mixed with, or sold as American, and he hopes that such will be the case, seeing that fine Turkish tobacco sells in European markets at three times the price obtainable for the finest American leaf.

Mr. Lamb is of opinion that it will be for the best interests of this Colony that the Moonbi tobacco should be sold in its own name and stand on its own merits, to make a place for itself in the tobacco markets of the world.

It was intended to have made much larger plantings at Moonbi in the last season, but the drought was so severe and so persistent that, in the absence of any provision for irrigation, the crop was small and light. It has not yet been handled, and cannot be until a spell of moist weather renders it possible to take it down from the poles where it now hangs, but it gives promise of fine colour and quality, and is described by Mr. Howell in his report as comparing favourably with the best products of North Carolina, and valued by him at 30 cents per lb. all round, and its first grades as worth 50 cents. per lb. in any tobacco market in the United States of America.

Of the twenty varieties sown, only fourteen grew, the best of these, as far as our present experience has shown, are Fly River, Persian, Hongroi de brok, Aya Soulouk, and Kei Basma, but it is probable that in a different season different results would accrue.

A considerable quantity of tobacco seed has been saved, and distributed to growers in various parts of the Colony.

The crops other than tobacco which have been grown at Moonbi have been wheat (five varieties), barley, oats, rye, millet, kaffir corn, cow-peas, pumpkins, potatoes, lucerne, turnips, rape, cabbage, beans, peas, and onions, but all these, except the wheat, barley, and rye, suffered so very greatly from the drought that no trustworthy conclusion can be drawn from their results, except that it has been fully demonstrated that the so-called poor land forming the foothills of the granite ranges, which has hitherto been valued at from 1½d to 3d. per acre per annum as sheep pasture only, is capable of producing a very high grade of tobacco leaf for cigarette purposes, and also some other crops, notably wheat and barley, of fine quality.

As there is a vast area of this class of land scattered throughout the entire length of the Colony from south to north this demonstration of its value is of the utmost importance, and the Moonbi experiments may justly be regarded as a great success.

Report of the Officer in charge of Museum.

THE Agricultural Museum was opened to the public by the Minister in February of this year. A fair amount of attention has been shown by the public in visiting the Museum daily, more especially farmers from the country when in the city, and those interested in agriculture.

A great deal of my time this year has been occupied in attending the principal Agricultural Shows held in the Colony with the Departmental exhibit. I visited Bathurst, Wellington, Dubbo, Bourke, Nyngan, Condobolin, Forbes, Parkes, Singleton, Albury, Junee, Cowra, and Moama. Judging from the amount of interest shown by the farmers and the general public in the exhibits, and the information asked for respecting the cultivation and uses of the numerous products displayed, it is needless to say that the showing of the exhibits have done an extensive amount of good by encouraging the farmers to turn their attention to cultivating better class of stuff and different kinds hitherto unknown to them.

The work done in the Experimental seed Distributing Branch is shown by the attached schedule.

SEEDS distributed from the Agricultural Museum during years 1896 and part of 1897.

Seeds.	No. of Applications.	No. of Packets sent out.
1896.		
Tobacco	200	600
Sugar-beet.....	450	1,350
Cotton	50	70
Miscellaneous	150	900
For Public Watering-places.		
Miscellaneous	50	600
Grape-cuttings	120	8,000 cuttings
1897.		
Tobacco.....	157	396
Sugar-beet.....	125	288
Cotton	20	25
Miscellaneous	200	900
For Public Watering-places.		
Miscellaneous	21	611

I have, &c.,
J. MARTIN, JUN.

Report of the Experimental Farm, Wollongbar, Richmond River.

DURING the past year, although the rainfall has been lighter than usual, it has been only during a limited period that crops have suffered severely from insufficient moisture.

In some instances, however, the drought was sufficiently prolonged to cause the loss of several crops, and to greatly diminish the yields of others.

Fruit-trees and sugar-cane, however, did not suffer to the same extent as recently-sown crops, the growth during the year having been considerable.

Large collections of produce were exhibited at the following places, viz. :—The Royal Agricultural Societies' Show in Sydney, and at Lismore, Grafton, Casino, and Alstonville.

Two collections of exhibits were also sent to the Departmental Museum in Sydney, and at the Spring Show of the Lismore Agricultural Society, held in October last, over 100 varieties of produce were exhibited, consisting chiefly of vegetables and fodders.

At all of these shows the exhibits attracted much favourable criticism, and much information was supplied to inquirers as to methods of culture, &c.

The area of land under cultivation, including ornamental grounds and nursery, is 17½ acres; but, as contracts for clearing are now in hand, in a few months this will be increased to nearly 50 acres.

About

About 20 acres have recently been cleared and ploughed, and sown with grasses of the most approved varieties, in separate paddocks of 5 acres each, for the purpose of testing their relative value for dairying purposes.

About 60 acres have been felled and fired, and now await the complete drying of the roots prior to being cleared for future operations.

The improved area now stands thus :—

Existing plantation	...	...	...	...	...	17½ acres.
Old grass paddock	...	...	...	...	...	7 "
New "	...	...	...	...	...	20 "
In course of stumping	...	...	...	...	...	37 "
Felled and fired	...	...	...	...	...	106 "

Additions to the manager's residence have been made, and a substantial seed and implement shed has been erected. The latter building has proved a great convenience ; but, with the increase of cultivation area, increased accommodation of this kind will become necessary.

A well has been sunk, which now affords a permanent supply of water for stock ; and additional tanks have been supplied to the buildings, thus greatly improving the water supply, which was previously very precarious. As it will shortly be possible to clear the land lying between the present plantation and Merom Creek, to which the farm has a frontage of about half a mile, a large and permanent supply of water will become available from that source

Subtropical Crops.

Coffee (Coffea arabica).—The small number of trees planted upwards of two years ago are still thriving, some of them showing promise of an early crop of berries. Some of them during last winter were somewhat injured by frost, but protection will this season be afforded them. It is intended to plant an acre at least to coffee-trees when the land is ready for the purpose.

Turmeric (Curcuma longa).—This crop has so far proved successful, the plot harvested since last report having yielded green roots at the rate of 4 tons per acre, valued at £7 per ton. The growing crop now approaching maturity will, in all probability, give an improved return.

Ginger (Zingiber officinale).—The last season's crop proved a comparative failure, but owing to better soil being available the plot now growing promises payable results.

Arrowroot.—A heavy crop of the purple variety (*Canna edulis*) is almost ready for harvest, while a fair yield should be obtained from a plot of the Bermuda or White Arrowroot (*Maranta arundinacea*). Both of these products will be prepared at a local mill, as the process of preparation with the appliances available at the farm is tedious and expensive. Samples and further reports will be furnished later.

Cassava.—The sweet variety (*Manitrot Aipi*) only is cultivated, the yield of tubers being over 10 tons per acre. *Manitrot utililissima* was applied for from Fiji, but *M. Aipi*, which had previously been in cultivation here, was forwarded in error.

Rice.—One variety (Japanese) has been grown this season, but owing to lack of moisture and the attacks of rust it has proved a complete failure.

Onions.

Eighteen varieties have been tested, viz. :—Brown Spanish, Hunter Globe, Giant Rocca, White Tripoli, Straw-coloured Spanish, Brown Globe, Extra Early Globe, Early Flat Red, James' Keeping, Potato, Tree Barletta, Silverskin, Silver King, Wethersfield, Golden Ball, Market Model, and New Queen.

The pickling varieties, viz., Barletta and Silverskin, were fairly successful, but with the exception of the Giant Rocca no other variety of which unacclimatised seed was sown could be regarded otherwise than as failures. They failed to "bottom" well, the product being in almost all cases inferior, ripening irregularly, and rotting almost as soon as harvested.

The Brown Spanish and Hunter Globe, from seed grown on the Hunter River, yielded onions of high quality at the rate of 5 tons 2 cwt. per acre, which were sold locally at £10 per ton, showing a profit of £40 per acre.

Further tests are being made this season with seed locally grown as well as from England, America, Victoria, and the Hunter River.

Potatoes.

Fourteen varieties have been tested under the following conditions and with the following results :—

Variety.	Manured with Colonial Sugar Co.'s No. 6 (7% potash), 4 cwt. per acre, value £1 6s. per acre.				Unmanured, per acre.			
	t.	c.	q.	lb.	t.	c.	q.	lb.
Imperator	12	11	1	20	10	10	3	4
Breese's Peerless	11	7	3	12	Not tried.			
Imperial Blue	10	12	0	16	7	10	0	0
The Dean	8	12	3	12	7	19	0	20
Early Rose	7	19	0	20	5	2	0	16
Irish Flounder	7	1	1	20	4	14	0	0
Satisfaction	6	13	2	8	5	17	3	12
Brownell's Beauty	6	11	2	12	5	6	3	24
Reading Russet	6	9	2	16	5	2	0	16
Early Puritan	5	17	3	12	5	11	3	24
Early Vermont	5	10	0	0	4	6	1	20
Bliss' Triumph	4	18	0	2	3	10	1	14
Federation	4	16	1	0	3	2	3	12
Robin Adair	2	5	0	17	1	17	1	8

The same varieties have again been planted for a test of their value as a winter crop, but owing to the prolonged dry weather nominal results only may be expected.

Turnips.

Turnips.

The following trials were made in a very poor plot of land, about the worst on the farm, the result clearly proving the value of manures. The manure used was the Colonial Sugar Company's No. 4, which was applied at the rate of 4 cwt. per acre, the cost being £1 9s. :—

Variety.	Yield per Acre.			
	Manured.		Unmanured.	
	tns.	cwt. qr. lb.	tns.	cwt. qr. lb.
Skirving's Purple Top Swede...	13	2 0 16	9	18 1 16
Anderson's Imperial Purple Top	9	15 1 22	5	6 0 8

The following results were obtained in land of better quality than the above, and which had become sweetened by longer cultivation. Swedes were planted 3 feet by 1 foot 3 inches apart in the drills, the other varieties 3 feet by 9 inches :—

Variety.	Yield per Acre.			
	Manured.		Unmanured.	
	tns.	cwt. qr. lb.	tns.	cwt. qr. lb.
Skirving's Purple Top	14	18 2 8	13	10 0 10
Anderson's Imperial Purple Top	11	13 3 0	11	7 3 12
Sutton's Champion	11	15 2 24	10	4 1 4
Emperor Green Top	17	13 2 8	14	8 3 0
Green Top Aberdeen	11	15 2 24	11	15 2 24
Purple Top	10	4 1 4	11	15 2 24
Anderson's Model	14	8 3 0	11	15 2 24
Red Top American	8	16 3 4		
Long White				
Orange Jelly				

Mangels.

Excellent results were obtained from this crop, the long red variety yielding upwards of 40 tons per acre. A number of roots weighed upwards of 20 lb. each.

Oil Crops.

Peanuts (Arachis hypogea).—Three varieties have been cultivated, one of which this season has proved a comparative failure. The large cluster variety, recently introduced from America, yielded at the rate of 19 cwt., and the large old kind 1 ton 6 cwt., per acre, valued at 2½d. to 3d. per lb.

Till or Gingelly (Sesamum indicum).—Has yielded light crops.

Castor Oil (Ricinus communis).—Has shown better results than usual owing to the season having proved drier than usual. The crop, however, is a precarious one, being liable to damage in wet weather.

Sunflower (Helianthus).—Three varieties, viz., grey, black, and white, have been grown with fair results.

Linseed (Linum usitatissimum).—A small area was sown, which produced seed at the rate of 800 lb per acre. A considerable quantity in excess of this had to be sacrificed owing to irregular ripening.

Tans.

Canaigré.—Has not yielded a payable crop, the result being at the rate of 3 tons per acre.

Specimen trees of the following are growing, viz. :—Acacia catechu, Acacia pycnantha, Terminalia bellerica, Rhus coriaria, and Rhus cotinus.

Fibres.

Ramie (Boehmeria nivea).—This crop has again made good growth, the plants apparently retaining full vigour. Samples have been sent to London fibre merchants for report as to its market value, in the "ribbon" form. While awaiting report, however, fibre of good length and excellent quality has been prepared by Mr. Guthrie, chemist to the Department, from ribbon grown on the farm. As more land will shortly be available, a larger area will be placed under this crop.

Sisal Hemp (Agave rigida var. sisatano).—Still shows vigorous growth, but the plants are still too young to test the value of the fibre.

Manilla Hemp (Musa textilis).—A considerable number of plants area vailable for extended cultivation, when tests of fibre value will be made.

The following varieties have recently been introduced from Ceylon :—Fourcroya gigantea, Sansevieria Zeylanica, and Sansevieria Guineensis.

Cotton.—Several varieties have been grown with the usual results ; the greater part of the crop has been destroyed by rain, which usually sets in about ripening season.

Fruits.

Almost all of the fruit-trees planted at various periods since the inception of the farm are thriving remarkably well. Some loss of trees, however, has occurred, partly owing to the excessive rains of last November, and to the prevalence of root fungus in one portion of the orchard, the latter being due to the difficulty of removing the whole of the roots of black bean (*Castanospermum australe*). The land has been stumped to 2 feet, but where any portion of the root is left, fruit-trees in the vicinity are liable to contract this disease, to counteract which we are using lime.

The following varieties have during this season borne their first fruits, viz. :—Citron—Lisbon Lemon, Sweet Lemon, Shaddock, Sicilian Lemon, Nelair Lemon. Kumquat Limes—West India and Tahitian. Oranges—Queen, Siletta, Parramatta, Satsuma, Seville, Mediterranean Sweet, Poor Man's, Myrtifolia. Mandarin—Oonshin, Emperor, Canton, Thorny. Grapes—Elsingburgh, Rebecca, Catawba, Anna Wilder. Chasselas, Royal Ascot, Black Damascus, Bell's Seedling, Isabella, and Madeleine Royal.

In almost all varieties the fruit has been of excellent quality, and the suitability of the district for their production has so far been demonstrated.

Sugar-cane.

About 100 varieties are now in cultivation on the farm, a number of which have thus far proved themselves well suited to the soil and climate of this district.

Of the older varieties, the Tannas (black, striped, and green), Louzier, Cheribon, and Mahoam are still giving satisfactory results.

A number of those received from New Guinea early in last year have in the "plant" stage made wonderful growth, and should they produce proportionate ratoon crops, they will prove most valuable additions to our stock.

The varieties most worthy of mention are, Nohona, Baruma Hota, Topuaka, Geboa, Porai, Uredi, Monoa, Baruma Be Ru Ru, Waki Aua, Yekarewa, Baruma, and Tututabuna, all of which are far above the average.

The most vigorous kinds will shortly be submitted for analysis, to ascertain their sugar contents.

The whole of the cane on the farm is in a very healthy condition, a few varieties being slightly affected by rust, but none showing symptoms of gumming.

The offer of plants to such persons as would take delivery of them was not very freely responded to, about 15,000 plants having been distributed.

The remainder of the cane was sold to the Rous Mill for crushing.

Tomatoes.

Tomatoes during the past season have not proved a satisfactory crop, all but a few varieties having suffered from disease, which greatly curtailed the bearing season.

The following varieties were tested:—Lemon Blush, Golden Queen, Imperial, Optimus, Peach, Ignotum, Beauty, Extra Early Advance, Sutton's Perfection, Buckley's State, Dwarf Aristocrat, Trucker's Favourite, Golden Perfection, Trophy, Long Keeper, and Fordhook, and Fordhook Early.

The most successful varieties, and those which best resisted disease, were—Imperial, Beauty, Sutton's Perfection, Long Keeper, and Fordhook Early.

Cucumbers.

The non-retentive nature of the soil, and the liability of cucurbitaceous plants to the attacks of aphides and oidium, render this at almost all times a precarious crop, and the past season has not proved an exception.

The following varieties were grown, viz.:—Japanese Climbing, Large Japanese, Apple, Long Green, Giant Pera, Richmond, Telegraph, Prescott Wonder, Short White, and West India Gherkin.

The only varieties that were even fairly successful were Large Japanese, Short White, and Gherkin

Pumpkins and Squashes.

Throughout the district this crop has been a comparative failure, owing chiefly to the attacks of mildew, and this farm has not proved an exception.

In the early stages of growth the application of sulphur by means of a vine-bellows is comparatively easy, but after the vines have grown their successful treatment is impracticable.

Unlike the previous season, very little trouble was experienced from the pumpkin beetle (*Aulacophora hilaris*).

The vines died almost to the roots after the heavy rainfall which occurred in November, and all early pumpkins rotted. A fresh growth, however, set in, which bore a light crop.

The following varieties were grown, viz.:—

Pumpkins—

Early Orange Sugar.
I.X.L.
Turk's Head.
Button.
Ironbark.

Gramma (4).
Cheese.
Japanese.
Connecticut.
Crown.

Cattle.
Preserving.
New Pie.
Stampes.
Mammoth Tours.

Squashes—

Crookneck.
Perfect Gem.
Red China.
Boston.
Pohion.
Fordhook.
Olive.
Delicata.

Fascon.
Red Hubbard.
Eureka.
Custard.
Pineapple.
Brazil Sugar.
Hubbard.
Pine's Peak.

Scarlet Sugar.
Valparaiso.
Butman.
Chili.
Cocoanut.
Japanese.

Marrows—

Prolific.
Long White.

Long Bush.
Long Green.

Rice.

Melons.

The following varieties have been grown on a small scale, the most successful having been those sown on 10th November, which were treated with Colonial Sugar Co.'s manure, No. 6, at the rate of 4 cwt. per acre.

A limited number of large fruits was obtained from Mammoth Ironclad, Seminole, Dixie Grey Monarch, Fordhook First, and McIvor.

The following varieties were also grown, viz.:—Orange, Egyptian, American Champion, Gragg Delaware, Green and Gold, Cole's Early, and White Gem.

Preserving varieties, as usual, gave good yields of the following kinds, viz.:—Citron, Japanese, and Lemon Jam.

Rock Melons.

Like all other plants of this class, rock melons may be classed as a failure. Less than half a dozen fruits matured on thirty-six hills, of the following varieties:—Scarlet Perfection, Columbus, Washington Market, Perfection Vatted Gem, Bakhiliri, Melrose, Reid's Scarlet Flesh, Cassaba, Banana.

Tobacco.

The following varieties have been grown, their success in point of growth being in the order of the names, viz.:—Persian, Virginia, Fly River, Kir Basma, Ghinbeck di Zanthi, Raseibali de Persoccian, Vuelti di Abajo.

As previously reported, climatic conditions are wholly opposed to the successful curing of tobacco leaf in this locality, without properly constructed drying houses, which are not yet available.

Meteorological Report.

	Temperature.		Rainfall.
	Maximum.	Minimum.	
1896—			
July	73.0	35.8	2.94
August	76.2	41.0	1.59
September	79.8	46.0	2.42
October	90.8	50.4	1.47
November	90.0	50.0	25.45
December	95.0	58.4	5.74
1897—			
January	101.8	51.4	1.91
February	95.2	56.4	4.32
March	88.6	51.4	9.92
April	86.0	50.0	0.41
May	81.2	42.1	1.75
June	71.0	47.4	7.98
			65.90

Plant and Seed Distribution.

	Plants.		Plants.
Cane	13,694	Grape Cuttings	62
Grasses	1,925	Passion Fruit	45
Cassava	215	Ramic	64
Turneric	130	Liquorice	10
Arrowroot	142	Tomato	50
Sweet Potatoes	95	Canaigre	20
Yams	47	Miscellaneous	567
Mulberry	20		
Pineapple.....	137		
Citrus	39		
			17,262
Miscellaneous Packets of Seeds			574

Maize.

Early-sown crops gave fair results, as the plants had the advantage of good rains in November and December; but a plot sown in the former month proved a comparative failure, as hot, dry weather set in at the flowering period, and, continuing for some weeks, destroyed the crop, which had given promise of a good yield.

Appended is a table showing yield of varieties sown in subsoiled land without manure:—

Variety.	Yield per acre.
	bsh. lb.
Leaming	30 48
Hickory King	33 2
Yellow Flint	47 8
American White	40 0
Golden King	50 0
Large Yellow..	51 24
Giant Caragna	54 48
Yellow Hogan	59 20
Mastodon	59 20

With the Hickory King variety a test of the value of seed selection was made with the result that large seed yielded $3\frac{1}{2}$ bushels more than seed of medium size.

Pulses.

A considerable number of varieties of table peas were sown, comprising Daisy, Stanley, Heroine, Telephone, Duke of Albany, Bedman's Blue, Carter's First Crop, Stratagem, Sangster's No. 1, and Sugar. All these varieties were exhibited green at the Lismore Show in October. The only varieties harvested entirely dry were Sangster's No. 1, yielding 10 bushels, and Bedman's Blue, yielding 9 bushels, of pulse per acre.

The varieties yielding the best crops for quantity and quality combined were Daisy, Heroine, and Duke of Albany.

For green manures the following were sown, viz.:—Black Cow Pea, Clay-coloured Cow Pea, and vetches, which have been ploughed in. Among citrus fruit-trees the cow-peas have been allowed to die on the surface.

A large portion of one of the bean-plots was washed away by the excessive rainfall of November, therefore dried pulse yields of the following varieties was not recorded:—Chevrier, Davis, Giant Round-pod, White Giant, White Wonder.

Pulses—

Pulses—Beans.

The following yields of dried pulse have been recorded, viz. :—

	per acre.
	bsh. lb.
Sensation	5 14
Surprise	5 38
Horticultural	5 40
Negro Longpod	7 16
Broad Windsor	7 20
Pale Dun	8 4
Haricot	9 30
Canadian Wonder	9 46
Broad Longpod	11 0
Startler	11 0
Field	14 0
Governor Denison	14 0
Soy	23 30

Wheat.

Three varieties were grown for grain for chick-feed, viz., Poland, Algerian, and Mummy. All were affected by rust, especially the two former varieties, which had to be cut for hay, the Poland yielding 17½ cwt. per acre, and the Algerian 1 ton 6 cwt. per acre.

The Mummy variety yielded grain at the rate of 10 bushels per acre, but a considerable quantity had been destroyed by birds.

A plot of Poland sown for hay returned at the rate of 2 tons 19 cwt. per acre.

Rye.

This cereal was successfully grown both for hay and grain, in all cases making good growth, and being free from rust.

Sown for grain and straw, the results were—straw, 3 tons 2 cwt., valued at £4 per ton, and 22 bushels of grain per acre. The actual yield of grain should have been about 30 bushels per acre, but owing to destructive birds much of it was lost.

A plot sown for hay, and cut before the awns stiffened, gave a return of 2 tons 3 cwt. of chaff per acre.

Pasture Grasses.

Over a hundred kinds of grasses, most of them new to the district, were received late in last spring, from the Director of the Sydney Botanic Gardens, and from the Queensland Government Botanist. The weather proving dry, sowing was deferred till autumn, and now about a third of the varieties are above ground. Others may germinate in the spring.

The newly ploughed area for grasses has been sown as follows, viz. :—5 acres Cocksfoot, 5 acres Paspalum, 5 acres Kentucky Blue Grass, and 5 acres Prairie Grass and Clovers. These paddocks will be separated by fences, and the respective values of the grasses for milk production may thus be thoroughly tested when dairying operations are commenced.

The established experimental plots consist of Clovers, Perennial Red, Alsike, Crimson, Dutch and Japanese. Grasses : Meadow Foxtail, Meadow Fescue, Cheewing's Fescue, Prairie, Paspalum dilatatum, Paspalum galmarra, Paspalum conjugatum, Trefoil, Panicum spectabile, Timothy Natal Redtop, Poa trivialis, Kentucky Bluegrass, Panicum plicatum, and Panicum maximum (Guinea grass). The last-named variety should prove invaluable for ensilage, a recent cutting from 9 months old plants having yielded at the rate of 25 tons per acre.

Fodders.

Lathyrus silvestrus.—Has proved a failure, the plants having remained stationary during the past year.

Hungarian Millet.—Has again proved a successful fodder crop, chaff of excellent quality having been made at the rate of 2 tons per acre.

Bokhara Clover.—Has made luxuriant growth, but is too woody for useful fodder.

Sulla.—Has only made moderate growth, the climate not being suitable.

Ensilage.

A small open stack has been made for the purpose of saving the crops, resulting from trial plots, and at the same time demonstrating in a small way the process of ensilage.

Specimens were exhibited at the Casino Show and in the town of Lismore, and portions were given to dairy farmers who applied for it for the purpose of trying their stock with it, in all cases the results being satisfactory.

As in the coming season a larger area will be available for growing fodder, it is intended, if funds will allow, to erect an enclosed silo so that operations may be more satisfactorily carried out by conserving a large quantity of fodder.

Fodder Plants.

Oats.—Forty-seven varieties are now being tested, most of the seed having been received from Vancouver. Most of them are making luxuriant growth, and only one variety has yet shown signs of rust.

Sorghums.—A limited area only was sown with the following varieties, viz. :—Amber Cane, Black, White Kaffir, Brown Dhoura, and Planter's Friend, all of which made fair growth.

Barley.—The following varieties are growing, viz. :—Cape, English, Skinless, and Algerian.

Tagosaste.—After growing freely for two years has died out, the climate apparently being unsuitable.

APPENDIX.

During the half year commencing 1st July, the following operations were carried on at the Wollongbar Experimental Farm. The work of stumping two portions of land containing respectively 24½ acres and 6½ acres was on the eve of completion at the date of my leaving Wollongbar, the 19th November.

The 6½-acre portion was first completed and was sown to maize, potatoes, and pumpkins which gave promise of a fair yield. The crops, however, were checked at a critical period by lack of moisture, and, therefore, the yields will not be far, if at all, above the average.

The larger portion is intended for the planting of commercial areas of the crops, &c., which have proved the most successful in the experiment plots.

About

About 2 acres was being prepared for pineapples, and the plants of the most approved varieties which were purchased in Brisbane were then arriving.

It was arranged that this area should be planted according to the method which has proved most successful in Queensland, and it is anticipated that a good return will be obtained from the fruit within two years.

One acre was set apart for a trial coffee plantation, and 2 or 3 acres will be devoted to the culture of ramie, so that demonstrations in the cultivation of these crops, from a commercial point of view, might be made.

Hitherto the results of experiment plots have been of a promising nature, especially so in the case of the ramie.

Space was also allotted for planting bananas, which will serve the double purposes of wind-breaks and fruit-producers; and an area was set apart at the principal entrance for the growth of shrubs, specimens of ornamental and timber trees, and economic plants. A portion of the latter area had been planted.

A nomenclature plot of sugar-cane was also established comprising a few plants of each of the most useful kinds, numbering about ninety varieties. The planting of cane has for this season been limited to this area.

The rest of the newly-cleared land was to be used at once for raising pulses, &c., for seed, forage crops for hay and ensilage, and a portion was to be devoted to nursery work pending the preparation of the land on the bank of Merom Creek, where a good supply of water will be available.

The contract of C. Leeson for stumping and ploughing about 25 acres was also completed in July. Of this area about an acre and a-half was planted to beans, comprising over forty varieties, a number of which were recently received from America.

It was intended on the maturity of this crop to plant a larger area with the seed thus raised, with a view to selling the surplus to Sydney seedsmen and others, from whom last year there was considerable enquiry for pulses.

The whole area was enclosed with substantial vermin-proof fencing, and gates were erected where required.

About 22 acres was sown to the grasses which had proved most successful in the experiment plots, each variety having an area of 5 acres, except in the case of some of the heavier tropical grasses.

It is intended, when they are established, to make a thorough test of the value of these grasses for milk and butter production.

The area now under grass is about 30 acres, which, when ready for grazing, is expected to carry a larger number of stock than is possible on pastures laid down in the usual way, without ploughing.

This land was stumped and broken to a depth of 1 foot, by ploughing and subsoiling, at a cost of £4 15s. per acre, and the result of the experiment in laying down pasture and in the feeding value of the various grasses will be of great interest to the dairy farmers of the Richmond River.

The clearing of more land on the farm is essential to allow of its full value being realised, as hitherto its operations have of necessity been limited to a small area.

At the time of my leaving Wollongbar the land stood thus, viz. :—

Area under orchard crops and experiment plots...	...	...	...	...	...	27 $\frac{1}{2}$ acres.
Grass paddocks (new)	...	...	...	...	...	23 "
" (old)	...	...	...	...	...	7 "
Felled and fired once	...	...	...	...	...	108 $\frac{3}{4}$ "
Newly cleared	...	...	...	...	...	24 $\frac{1}{2}$ "
Standing scrub	...	...	...	...	...	72 $\frac{1}{2}$ "

263 acres.

Tenders were being called for stumping and ploughing a further area of 45 acres, which, when cleared, will render accessible the permanent supply of water in Merom Creek, on the western boundary of the farm, which hitherto has not been available, owing to the logs and stumps occupying the intervening land, and which could not be removed till sufficiently decayed to admit of its being cleared at the lowest rates.

During the first three months of the period referred to, about 300 persons visited the farm, on one occasion upwards of sixty attending to witness demonstrations in budding and grafting.

Upwards of 40,000 plants, consisting chiefly of grasses, sugar-cane, ramie, and other economic plants, were distributed free of charge.

The cane plants secured from New Guinea in the early part of 1895 reached maturity early in the half-year and were cut in October, plants being distributed without charge to applicants, and the remaining cane was sold to the proprietors of the Rous Mill.

A detailed report on these canes will be supplied to the *Agricultural Gazette*, embodying a favourable report from the Colonial Sugar Refining Company as to the sugar contents of the majority, and as to the growth of about one-third of the surviving varieties.

Experiments were about to be commenced in the treatment of cane with manures, and these will now be carried out by Mr. Jackson.

During the month of August I visited Brisbane, and while there inspected all local centres of interest to agriculturists and obtained a number of ornamental and economic plants, which were generously supplied by the Secretary of the Acclimatization Society and the Curator of the Botanic Gardens.

I also visited the leading pine-apple and banana plantations; obtained information as to the best methods of planting and cultivating the former; and arranged for the purchase of plants for Wollongbar.

Under notification of my appointment to the Bomen Experiment Farm, I left Wollongbar on 19th November, and arrived here on 26th November.

During the period to 21st December, with the exception of two intervals occupied respectively in attending the Officers' Conference at Bathurst and in bringing my family from Sydney, I remained here gaining information as to the work carried on at the farm, and on the 22nd December I assumed the directing of operations.

The work, since my arrival here, has consisted mainly of harvesting wheat, in the farming department, and in the orchard the keeping in check of a plague of grasshoppers by spraying, the usual tillage, and more lately the bottling and drying of fruits.

I have, &c.,
G. M. McKEOWN.
FORESTRY.

FORESTRY.

THE efforts made by this Department have been in continuance of the former policy adopted for conserving our timbers; and, whilst controlling destruction and waste of timber by regulations restricting operations, the conditions attached have not debarred the working of our forests at reasonable rates. During the period a demand for timber products for export has been steadily growing, and throughout the coastal districts mills are everywhere in full swing, providing employment for many hands who were idle during the prior years of depression in trade; and in some instances it is known that mills at the present time hold more orders for timbers for export than they can fulfil with the plants at command. The wisdom of the policy of distribution of samples and information regarding the value and uses of our hardwoods which has been exercised during the past five years is now being evidenced, and in many parts of Europe shipments of these timbers have been introduced, and used for street-paving, wharfage, carriage-building, and other manufactures, with results that should ensure a continued demand for them. Whilst seeking fresh markets for this product, the fact that our supplies are not illimitable has not been overlooked, and the Department, whilst being assured that a fair margin for export existed beyond local demands, has strenuously endeavoured to further the policy of reservation of usefully-timbered lands. In the formation and maintenance of plantations little work has been effected, although the importance of this work has not been overlooked, and its practical application on a large scale in the western portions of the Colony is a problem which must eventually be faced; but attention for the period has chiefly been directed to the improvement of existing forests by thinning out superabundant growth, and assisting the maturity of those allowed to remain. This class of work has been effected principally in the Murray River red gum forest, and in the pine areas surrounding Narrandera, particulars of its extent and cost being furnished under tables.

In carrying out these improvements employment has been afforded to a number of men at a time of great depression; but, apart from its economic aspect, large returns in revenue from timber sales will eventually follow as a result of the expenditure. In principles of general working no great departure from ordinary routine has taken place, nor have the dues for operation been raised with the increased demand for timber. As a result, however, of the recent investigation by the Public Service Board, a very startling change in the constitution of the field staff has been effected, the office of forester pure and simple being abolished, and the duties applying to that office being amalgamated with those of Conditional Purchase Inspector. The services of mounted police throughout the Colony were obtained, through the direction of the Inspector-General of Police, and already plans and information relating to forest lands in the vicinities of their stations have been supplied to about 300 of these officials, with results that prove beyond doubt how necessary the additional aid was in effecting a complete and practical system of supervision, and in continuance of this scheme a net-work of additional patrol within districts is gradually being extended throughout the whole of the Colony. In administration much attention has also been given to the dissemination of information relating to classification and rates for operation attached to the differently classed lands, and great facilities have been afforded the public to obtain this knowledge locally instead of by application to head quarters. In prosecutions for illegal offences and acts, little reduction in number is evidenced by the returns in comparison with those of former years, and whilst on this subject it might be again urged that an alteration of the law relating to offences is urgently needed. As now existing the section is not sufficiently comprehensive or forceful to act as a deterrent to persons wilfully committing offences against the regulations, and the matter is an important one in a country situated as this is, the areas to be supervised being scattered over large districts with the opportunities for visiting them curtailed by a limited staff. In distribution of plants to public bodies and trusts for the improvement of parks, show-grounds, cemeteries, &c., the work has been particularly heavy, and in supplying requirements has taxed the resources of the central nursery at Gosford, which is now worked with a limited staff. The extent of work in eradication of prickly-pear on the public estate has been very small, as no funds were provided by Parliament for effecting it, but the limits of the Act have been taken full advantage of in enforcing eradication on private lands and in leasing Crown lands with reasonable rentals and stringent conditions attached for destruction of the pest.

The question of permanency of forest lands, which is so vital a one in the maintenance of a scheme of conservation, has unfortunately not advanced any stages since the publication of last report, and in the interim much land valuable for the timbers thereon has been withdrawn from reservation and alienated. The importance of this matter cannot be overlooked, for the present area set apart for forestry is not of sufficient extent to admit of its reduction, and in comparison with the area of the Colony is very limited. With the advent of increased population the question of timber supply will, in many parts, become a burning one, for profitable occupation of the country is practically dependent upon facilities for obtaining timber for fencing, building, and domestic purposes, and the neglect to now make a liberal provision of lands for the growth of timber will necessitate in the future costly resumption, and delays in settlement whilst the natural growths are being artificially reproduced.

The extent of timber destruction effected by ringbarking in pastoral districts has been enormous, and whilst conditions are usually attached to permissions granted by the Lands Department providing for the preservation of stated proportions or certain species of timber, it is doubtful whether the supervision available has in all cases been sufficient to enforce the observance of such. Another medium for the destruction of a highly valuable timber has been that regulation under the Crown Lands Act which authorises the destruction of Cypress pine as scrub without permission at a girth of 1 foot in diameter, a dimension it may be remarked at which this particular timber, under the Forest regulations, is considered as marketable timber. It may be worthy of mention that whereas in all the leading countries of the world the subject of forestry is treated as one of national importance, calling for stringent laws and careful management in order to provide for its maintenance, not one of the colonies of Australia possesses even a definite system of conservation placed beyond the reach of interference by persons desirous of exploiting the timbers.

Office Work and Records.

The administration work has been carried out efficiently by the staff which comprises 1 senior and 2 assistant clerks, with a clerk for Records and Correspondence, and when it is considered that the outside staff associated with Forestry comprises 39 foresters, 5 acting foresters, and about 300 assistant foresters in the ranks of the Mounted Police, it is creditable to be able to report there are no arrears of office work. Several reforms in the system of working have been inaugurated, simplifying processes and curtailing methods, and amongst other items it may be mentioned that the whole subject of royalty rates has been revised and a scheme for allotting them has been completed, which aims at placing these charges on a basis devised to afford uniformity in operation and to place operators throughout the Colony upon a more equal footing. Fresh reports upon the status of every forest area have also been obtained and filed, and the information comprised therein carefully noted for reference in working, and under this section it may be mentioned that a considerable area of land resumed, but found to be unsuitable for forestry, will shortly be released for disposal in other directions. The following is a statement of office records for the period under report.

Number of papers registered, 1st July, 1895, to 30th June, 1896	...	...	9,480
" " " 1st July, 1896, to 30th June, 1897	...	...	6,500
Total			15,980

Number of letters issued, irrespective of circulars and B6 communications,			
1st July, 1895, to 30th June, 1896	...	...	3,050
1st July, 1896, to 30th June, 1897	...	...	2,600
Total			5,650

Carpentry and Museum.

The distribution of samples in advertisement of our timbers has been considerable for the period; but for educational purposes there has been a constant demand by trustees of Schools of Arts, Mechanics' Institutes, and other educational establishments. In addition to the proportion of these woods, the museum has been literally stocked with bulk samples of every indigenous timber of known commercial value, and, with many others, the value of which for carpentry and decorative arts have yet to be tested. The work of sawing, cleaning, and fixing these has provided full employment for the staff engaged, and at the present time this exhibit of our forest wealth embraces a fairly representative collection of timbers, besides many practical illustrations of their enduring qualities and capabilities of usage. The museum was opened to the public on the 17th of February, 1897.

The following table indicates the distribution and variety of samples issued for the period:—

Samples.	Great Britain.		America.		Germany.		Africa.		India.		The Timber and Trades Journal.		Imperial Institute.		Local Distribution.		Totals.
	1895-6.	1896-7.	1895-6.	1896-7.	1895-6.	1896-7.	1895-6.	1896-7.	1895-6.	1896-7.	1895-6.	1896-7.	1895-6.	1896-7.	1895-6.	1896-7.	
General samples	700	500	80	330	100	245	50	250	100	...	150	...	...	...	800	1,010	4,315
Paving blocks.	20	60	20	73	12	53	...	90	...	...	36	...	400	...	...	55	819
Railway sleepers ...	8	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	14
Gun stocks .....	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	6
Walking sticks .....	...	...	...	...	...	...	...	...	...	...	12	...	...	...	24	...	36
Balusters .....	...	...	...	...	...	...	...	...	...	...	12	...	...	...	...	...	12
Pipe bowls .....	...	...	...	...	...	...	...	...	...	...	12	...	...	...	...	...	12
Timbers suitable for gun stocks .....	...	...	...	...	...	...	...	...	...	...	...	...	18	...	...	...	18
Totals	1,288		503		410		390		106		228		418		1,889		5,232

Forest Improvement.

Planting and Thinning Operations.—As stated in the introductory report, the extent of planting operations has been extremely limited, the work under this heading being principally confined to thinning operations, details of the extent and cost of which for the period are given in the following table. It will be observed that the cost of red gum thinning throughout is greater than for pine, the work being much heavier in the direction of ringbarking over mature trees, and in actual thinning. The habit of this species requires that saplings to be destroyed must be taken out below the bulb, otherwise a fresh growth will ensue.

ensue. The total expenditure under Loan Votes for forest thinning, during the whole period covered by this report, amounts to £37,626 3s. 5d. for the year ending 30th June, 1896, and £11,229 17s. 6d. for the year ending 30th June, 1897 :—

MURRAY RIVER DISTRICT.

Red Gum Forests.

Forest.	Number of Reserve and County.	Area improved.	Average cost per acre.	Remarks.
		acres.	s. d.	
Moira	3253, Cadell.....	9,250	8 7	Very heavy work. " " " "
Millewa	3265, Townsend	15,348	9 0	
Campbell's Island	2066, Wakool	5,000	13 9	
Moama	3254, Cadell	3,100	11 4	
Mulwala.....	—, Denison	4,460	12 5	
Total area improved		37,158	11 0	

NARRANDERA DISTRICT.

Pine Forests.

Gillenbah	1890, Mitchell.....	4,275	3 6
Buckenbong	3053, Mitchell and Urana.....	13,277	5 3
Bynya	2740, Cooper	13,682	5 9
Dulah	2652, Bourke	17,242	7 0
Matong	1421, Bourke	13,057	3 9
Ganmain	1251 and 9035, Bourke	15,494	4 4
Piney Ridge	1799, Urana.....	1,759	5 3
Total area improved.....		78,786	5 0

Gosford State Forest Nursery.

The usual nursery operations have been carried out with marked success, and improvements to the area generally have been effected. The work of clearing the remaining uncultivated area has been completed; this portion has been subdivided with wire fences, in order to protect any trees that may ultimately be planted. A further area has been put under fruit-trees of named varieties, in order that the Department may be able to have a supply of such fruit-trees for the various Farms and Experimental Stations, Artesian Bores, &c.

Three varieties of Turkish tobacco were raised, from which a fair quantity of seed was obtained and sent to the Department. It was a particularly unfavourable season for tobacco-rearing in consequence of the virility of plant pests, due, no doubt, to the drought, the dry weather favouring their natural increase.

Some of the coniferous trees permanently established in the grounds of the nursery having come into seed bearing, after being properly treated, the seed was sown, and produced very fair results. Next season the seed should be stronger and in sufficient quantity to more than meet the nursery requirements. Some of the American ash-trees also bore seed, which proved fertile.

Imported seed of carya species, American hickory nuts, Saxodium species, American red woods, Accs Negundo, American box elder, &c., was sown, with good results.

Erythrina Caffra, Mulletia Caffra, and Odina Caffra trees were raised from seed received from the Forest Conservator, Natal, South Africa.

The fodder plant called "Siberian Persicary," mentioned in last report, known in botany as Polygonum Sachalnieuse, grew exceedingly well where planted out, but there is not yet sufficient quantity to estimate its usefulness on an extensive scale. Horses show a disposition to eat it with avidity. The plant dies down late in autumn, the stool sending forth shoots again in the following spring.

Varieties of salt-bush were successfully raised from seed, the whole of the plants being distributed in season.

The most important of our indigenous timber trees were raised from seed, iron-bark, tallow-wood, blue gum, terpine, cypress pine, brown pine, beach, black bean, and red cedar, &c.

Imported seedlings were received of Spanish Chestnut, common maple, ash, Norway maple, Linden, and horse chestnuts. These will be ready for transplanting to suitable districts on the higher table-lands in due season.

During the year ending 30th June, 1896, some 25,000 plants were potted and 400 seed boxes sown; seed beds were formed and sown; a large quantity of cuttings were also sowed out in suitable light soil.

During the year ending 30th June, 1897, some slight changes have been made in the working of the forest nursery at Gosford. The working staff was materially reduced at the end of August, 1896, thereby considerably reducing the expense of the establishment. The manager was transferred to the head office, Department of Mines, in June, 1897, where other duties have been assigned to him besides that of still managing the nursery work at Gosford. So far as the actual nursery work is concerned, the raising of plants and supervision of the large stock held at this establishment has not been materially affected, the reduction of labourers simply causing a cessation of work in the opening up and bringing into some sort of order and possible future cultivation the balance of the area not in use.

The plants reared and distributed during the 1896-97 season were of excellent growth and well rooted, and the Entomologist to the Department, after a visit of inspection, reports most favourably on the absence of plant diseases and scales.

The

The distribution of trees for the period under report was as follows:—

	1895-6.	1896-7.	Total.
To plantations, Artesian Bores, and Experimental Farms	11,790	7,850	19,640
To public Bodies, Charitable Institutions, &c.	10,137	11,176	21,313
To Farmers, Settlers, &c., for sericulture, shade and shelter, and other purposes	7,356	Discontinued	7,356
Grand Total			48,309

The wages, salaries, and incidental expenses in connection with the actual nursery work for the period was as follows:—

	£	s.	d.
1895-6	1,166	13	1
1896-7	492	1	8
	£1,658	14	9

It will be noted that owing to curtailment of staff and the practice of economies that a reduction in expenditure amounting to £674 11s. 5d. was effected in the latter period.

The stock has been fairly well kept up to the usual quantities held, and gratifying acknowledgments have from time to time been received respecting the excellence of the plants reared and the satisfactory mode of packing them.

REVENUE for the year ending 30 June, 1896.

Particulars.	Half-year ending	Half-year ending	Year ending
	31 Dec., 1895.	30 June, 1896.	30 June, 1896.
	£ s. d.	£ s. d.	£ s. d.
Royalty, Class "C," at per sup. feet—			
Half-year ending 31 Dec., 1895, 2,036,086 sup. ft. { Total for year 6,284,895	1,108 2 7	2,557 7 2	3,665 9 9
" " 30 June, 1896, 4,248,809 " } sup. ft.			
Tree permits (at per tree)—			
Half-year ending 31 Dec., 1895, 457 trees } Total for year, 1,415 trees	71 15 0	152 0 0	223 15 0
" " 30 June, 1896, 958 " }			
Miscellaneous Royalty—			
Half-year ending 31 Dec., 1895.....	9 18 0		} 14 10 0
" " 30 June, 1896.....		4 12 4	
Licenses—Forest Reserves—			
Class "C" (with royalty) half-year ending 31 Dec., 1895	97 10 0		} 218 10 0
" " " 30 June, 1896		121 0 0	
Classes "A" and "B" (without royalty) half-year ending 31 Dec., 1895.....	138 15 0		} 553 10 0
" " " 30 June, 1896.....		414 15 0	
Wattle-bark (without royalty), half-year ending 31 Dec., 1895	57 5 0		} 102 0 0
" " " 30 June, 1896		44 15 0	
Saw-mill sites.....	12 5 0	9 7 6	21 12 6
Licenses Crown Lands (no Royalty)—			
Cedar—Half-year ending 31 Dec., 1895 150 } 354	87 10 0		} 203 10 0
" " " 30 June, 1896 204 }		116 0 0	
Quarry " " 31 Dec., 1895 87 } 190	60 0 0		} 123 0 0
" " " 30 June, 1896 103 }		63 0 0	
Woodcutters " 31 Dec., 1895 3,332 } 7,197	914 12 6		} 1,833 13 6
" " " 30 June, 1896 3,865 }		919 1 0	
Fuel " 31 Dec., 1895 2,327 } 3,867	258 7 0		} 501 0 0
" " " 30 June, 1896 1,540 }		242 13 0	
Total 11,608			
Miscellaneous Revenue—			
Rent of prickly pear leases.....	250 0 0	250 0 0	500 0 0
Sale of confiscated timber	100 0 0	100 2 7	200 2 7
Penalties, illegal timber-cutting, &c.....	40 0 0	65 14 0	105 14 0
Sale of wattle-bark	9 10 0	49 1 2	58 11 2
	3,215 10 1	5,109 8 9	8,324 18 10

REVENUE for the Year ending 30 June, 1897.

Particulars.	Amount.		
	£ s. d.	£ s. d.	£ s. d.
Royalty, at per 100 sup. feet (Class "C")—			
Half-year ending 31 Dec., 1896—1,828,107 sup. feet	1,130 15 1		
" " 30 June, 1897—2,820,827 "	1,917 19 8		
		3,048 14 9	
4,648,934			
At per tree (Tree Permits)—			
Half-year ending 31 Dec., 1896	152 19 0		
" " 30 June, 1897	178 3 0		
		331 2 0	
Miscellaneous—			
Half-year ending 31 Dec., 1896	37 6 9		
" " 30 June, 1897	32 8 6		
		69 15 3	
			3,449 12 0
Licenses—			
Forest Reserves—			
Class "C" (with royalty), half-year ending 31 Dec., 1896	70 0 0		
" " " 30 June, 1897	76 0 0		
		146 0 0	
Classes "A" and "B" (without royalty), half-year ending 31 Dec., 1896	401 10 0		
" " " 30 June, 1897	403 15 0		
		804 5 0	
Wattle-bark (without royalty), half-year ending 31 Dec., 1896	52 0 0		
" " " 30 June, 1897	84 15 0		
		136 15 0	
Saw-mill Sites, half-year ending 31 Dec., 1896	13 5 0		
" " " 30 June, 1897	13 5 0		
		26 10 0	
			1,113 10 0
Crown Lands (no royalty)—			
Cedar, half-year ending 31 Dec., 1896, 210	120 0 0		
" " 30 June, 1897, 607	325 0 0		
		445 0 0	
Quarry " 31 Dec., 1896, 130	80 0 0		
" " 30 June, 1897, 160	92 0 0		
		172 0 0	
Woodcutters " 31 Dec., 1896, 3,950	950 0 0		
" " 30 June, 1897, 4,215	1,060 0 0		
		2,010 0 0	
Fuel " 31 Dec., 1896, 1850	230 0 0		
" " 30 June, 1897, 1,642	244 7 6		
		474 7 6	
			3,101 7 6
Miscellaneous Revenue—			
Rent of Prickly-pear Leases		426 15 1	
Sale of confiscated material, half-year ending 31 Dec., 1896	85 7 4		
" " " 30 June, 1897	283 19 8		
		369 7 0	
Penalties for illegal timber cutting, half-year ending 31 Dec., 1896 }		130 2 10	
" " " 30 June, 1897 }			
Sale of wattle-bark, half-year ending 31 Dec., 1896	15 16 10		
" " " 30 June, 1897	23 10 9		
		39 7 7	
			965 12 6
Total revenue for year ending 30 June, 1897 .....	£ .....	.....	8,630 2 0

EXPENDITURE.

Items.	Year 1895-6.	Year 1896-7.	Totals.
	£	£	£
Salaries—			
Administrative staff	2,175 0 0	1,640 0 0	3,815 0 0
Scientific staff	100 0 0	Nil.	100 0 0
Field staff	5,756 8 10	*.....	5,756 8 10
Contingent—			
Travelling expenses	2,411 10 8	1,860 16 2	7,040 12 6
Incidental	1,682 19 7		
Plantation	1,004 16 8		
Books	13 15 9		
Rent	16 13 4		
Nursery	50 0 4		
Total	13,211 5 2	3,500 16 2	16,712 1 4

* Note.—Owing to the amalgamation of offices of Conditional Purchase Inspector and Forester, the salaries of field staff for year 1896-7, were voted under the Estimates for the Department of Secretary for Lands.

SCHEDULE of Particulars of Prosecutions undertaken by Foresters during the year ended 30th June, 1896.

Offence.	Number of Prosecutions.	Number of Convictions.	Amount of Penalty.
Illegally cutting or removing timber	114	98	£ 101 9 2
Quarrying or removing other material	3	3	2 8 6
Trespass on Crown Lands	2	2	1 16 4
Totals	119	103	£105 14 0

Number of cases in which timber or other material has been seized...	...	...	...	...	65
" " " claims have been preferred to seized material ...	...	...	...	...	7
" " " such claims have been confirmed...	...	...	...	...	1
" " " seizures have been upheld...	...	...	...	...	64

REMARKS RESPECTING RESULT OF PROSECUTIONS.

103 convictions carrying penalties amounting to ...	...	...	...	...	£105 14 0
Sales of material confiscated ...	...	...	...	...	200 2 7
Total result of prosecutions ...	...	...	...	...	£305 16 7

SCHEDULE of Particulars of Prosecutions undertaken by Foresters during the year ended 30th June, 1897.

Offence.	Number of Prosecutions.	Number of Convictions.	Amount of Penalty.
Illegally cutting or removing timber	136	125	£ 130 2 10
Quarrying or removing other material	Nil.	Nil.	Nil.
Trespass on Crown lands	6	Nil.	Nil.
Totals	142	125	£130 2 10

Number of cases in which timber or other material has been seized...	...	...	...	...	83
" " " claims have been preferred to seized material ...	...	...	...	...	5
" " " such claims have been confirmed ...	...	...	...	...	5
" " " seizures have been upheld ...	...	...	...	...	78

REMARKS RESPECTING RESULT OF PROSECUTIONS.

125 convictions carrying penalties amounting to ...	...	...	...	...	£130 2 10
Sales of material confiscated ...	...	...	...	...	369 7 0
Total result of prosecutions ...	...	...	...	...	£499 9 10

Class and area of Forest Reserves.

On the 30th of June, 1897, the total area of reserved forest lands was 5,596,521 acres. These reserves are divided into three classes, viz., A, B, and C; the latter being under license fee and royalty, whilst the two former are under license only. The totals of the areas under each class are as follows:— Class A, 2,913,061 acres; class B, 128,995 acres; class C, 2,554,465 acres. In addition to the above, an area of 2,265 acres stand reserved for forest plantation.

On the same date the areas exempted from operation of licenses were as follows:—

- (1.) From the operation of ordinary licenses 192,000 acres of Crown land not embraced within forest reserves.
- (2.) From the operation of all licenses and permits (closed areas) 41,084 acres, being principally special areas comprised within forest and other reserves.

In the introduction to this report it was mentioned as a matter for regret that many usefully timbered areas had been withdrawn from reservation and alienated; the extent of area withdrawn, by comparing the total area of reserved land given in last report with that shown above, is found to be nearly 50,000 acres, the correct figures being 44,757 acres.

Prickly-pear Extermination.

During the past two years a considerable amount of work has been done in eradicating prickly-pear from both Crown and private lands throughout the Colony, the following being a brief *resumé* of the work accomplished.

Tenders for leases were invited for 67 portions, embracing an area of about 37,000 acres; of these 36 lots, embracing 11,905 acres, let for terms varying from 1 to 21 years producing an annual rental of £169 ls. 6d.

During the period under review a number of leases expired or were cancelled for non-compliance with conditions; but the total area of Crown lands to date held as leases under this Act is 29,931 acres, yielding an annual rental of £426 15s. 1d.

Upon private owners a great number of notices were served resulting, in a large number of cases, in the complete eradication, and in the remainder (with few exceptions) in satisfactory endeavours to cope with the pest.

It is plainly evident from reports received that prickly-pear is spreading on the Crown estate, the evil chiefly occurring on travelling stock and camping reserves, from which it is carried to adjoining lands. As great objection exists to leasing these areas, and funds are not available for eradication purposes, the pest was of necessity allowed to grow unchecked; but it is hoped that in the near future the seriousness of this matter will not escape notice, and funds sufficiently large to curtail this expansion and in time effect a permanent eradication will be voted for the purpose.

Forestry

Forestry Prospects.

In forestry, the fact that timber-falling operations are being conducted on a large scale is looked upon by the public as a sign of prosperity; and to a certain extent it undoubtedly is, for employment is afforded thereby to a large number of persons. The impetus that has been given to the timber trades by an export demand, after a long period of depression, comes as a fortunate circumstance to the many who are dependent on this industry for a living; but there are other aspects to be considered before congratulation is too freely indulged in, and these are as to whether our resources are capable of supplying an export demand for any period, and also, secondly, as to whether our timbers are not being parted with too cheaply. On the question of cheapness there is, of course, much to be credited in the argument that we are at this stage creating a market, and must move slowly until such is established; but if any comparison can be drawn from the small dues collected by the State for royalties and rights to cut timber, and which, whilst being so low as to prohibit sufficient return to pay cost of working and supervision, are the cause of constant complaint and agitation for reduction on the side of operators, it would seem that neither the State or the public are profiting from the industry. The question of maintaining an export trade is one depending largely upon the policy that is to be followed in regard to our forest tracts and their working. Under present conditions, with laws not sufficiently forceful to aid supervision or check waste and destruction, and with lands so indefinitely set apart that they are liable to withdrawal for sale at any time, heedless of their more lasting value for timber production, it may be at once set down that, apart from legitimate operation, we are burning the candle at both ends, and will soon exhaust our resources. It is frequently asserted that insufficient provision for future supply is being made in the direction of planting operations; but in the bulk of our commercial hardwoods, replanting will never be a necessity, for natural reproduction follows rapidly upon depletion, and the problem of their supply depends principally upon stringent laws against immature operation, and sufficient provision of suitable land for them to reproduce upon. Forest planting is a costly operation, and would not repay the State on the basis of present rates paid by operators for the right to cut timber. Our red-gum forests on the Murray give, perhaps, a brighter promise than any others we possess, for they are situated on land which is subject to inundation, and therefore unsuitable for settlement, and as the timbers obtained therefrom are principally for Victorian markets, the difficulty of obtaining fair rates for operation is never likely to arise. These areas are, further, not to any extent cut into by settlement, and being distant from population are more easily supervised. In speaking of forestry prospects, mention may also be made of our Western pine, a highly valuable timber, and in great demand. In some parts of the west this timber is becoming very scarce, and as it mostly occurs upon land suitable for wheat-growing, there will always be a danger, under existing conditions, of insufficient land being left for the production of this species. Some idea of the value of this pine may be gathered from the fact that a cargo was recently trucked from the Narrandera District for shipment to Port Darwin, it being highly esteemed there for its white ant-resisting properties.

Report of the Government Botanist.

THE work of the Botanist for the period was heavy, and included services for the Department of Agriculture, as well as botanical and other work associated with forestry. In face of his other duties, Mr. Maiden is assiduous in undertaking investigations, which in the course of a year include a variety of subjects. Apart from many memoranda of a brief character which were not pressed, the number of reports of varying length and importance presented to the Department for the period 1st July, 1895, to 30th June, 1897, was 577, the work consisting in the naming of any plants submitted, whether indigenous or exotic, or whether useful, noxious, or simply of botanical interest; also in the examination of plant products, the following being a brief *resumé* of his operations:—

Agricultural.

Weeds.—The naming of weeds, and making suggestions in regard to their destruction or utilisation. Reports in regard to coping with the prickly-pear pest, and the eradication of scrub.

Plants reputed Poisonous to Stock.—Identification and reporting upon indigenous and other plants reputed to be poisonous to stock, with suggestions in regard to the collection of evidence or dealing with the plants themselves.

Fodder-plants.—Reports on indigenous and exotic fodder-plants, particularly salt-bushes.

Grasses.—The naming of indigenous and exotic grasses, and making recommendations with the view to the conservation and propagation of desirable ones, particularly the indigenous species.

Bee-plants.—The naming of plants reputed to be useful to the bee-keeper, with suggestions for the dissemination of such plants.

Drugs.—Reports on indigenous plant-products reputed to possess medicinal properties.

Fibres.—Reports on indigenous and exotic fibres, and suggestions as to the desirability of cultivating or conserving the plants. Note on the utilisation of *melaleuca* bark for fruit-packing.

Experimental Cultivation.—Reports on the cultivation of the golden osier, sugar-cane, indigenous grape-vines for stocks, barob, cork-oak, &c. The testing of various seeds as to their germinating power.

Forestry.

Timbers.—The diagnosis of timbers; the identification of herbarium specimens of timber-trees; reports on various questions connected with the conservation of timber-trees, and forestry in general; reports on the utilization of Colonial timbers for various purposes, and specifically for wood-paving; engraving; wood-pulp; wine-casks; the seasoning of timber by rapid methods.

Gums, Resins, &c.—Reports on plants yielding gums and resins, especially grass-trees, wattles, and the indigenous Cypress-pines (*Callitris*); furnishing information in regard to the distribution of the plants, and the commercial possibilities of the products.

Kinos, Rubbers, &c.—Reports on the various eucalypts (and their distribution) producing kinos which are merchantable; reports on the kinos themselves; reports on indigenous plants containing rubber, and on the possibilities of the successful cultivation of India-rubber and gutta-percha plants in the Colony.

Tans.—Reports on the introduction of sumach to the Colony, also on canaigre, wattle bark, &c.

Dyes.—Reports on some indigenous products suggested as useful for dyeing purposes; also on some materials suggested as useful for marking stock.

Miscellaneous.

Miscellaneous.—In addition to the foregoing, miscellaneous subjects were treated of, such as—Identification of Mangroves used by Oyster Lessees for Spat; Report on the effects on the Indigenous Vegetation of the severe winter of 1895; Correspondence on the Saps of the Silky Oak (*Grevillea robusta*) and Brush Box (*Tristania conferta*); Naming and Reporting on Fungi, &c.; and, for the period under review, Mr. Maiden contributed much valuable matter to the pages of the *Agricultural Gazette*, the work performed including—26 illustrations of plants, comprising 6 weeds, 10 indigenous grasses, 3 salt-bushes, 1 other fodder-plant, 6 timber-trees; 48 articles of varying length on the following subjects—Weeds (10), Poison-plants (4), Prickly-pear (1), Salt-bush (3), A. Medick (1), Grasses (10), Timber-trees (8), the Cultivation of Indigenous Plants (1), Botanical Notes, or series of Notes (5), Descriptions of Botanical Tours (2), and Resins (2).

In concluding this section, mention may also be made of the publication "Notes on Commercial Timbers of N.S.W.," compiled by Mr. Maiden at the request of the Department, and which has since been distributed as a text-book of reference in brief on the principal timber, their localities and uses, and also of the report of the Spotted Gum Committee, of which Mr. Maiden was a member, and the quarterly publication, "Flowering Plants and Ferns of N.S.W.," with which Mr. Maiden is associated as author

I have, &c.,
R. D. HAY.

THE BOARD FOR EXPORTS.

The Board began its existence on the 7th November, 1895; but as the first twelve months or more were chiefly occupied in work of a tentative and preparatory nature, it may fairly be claimed that active operations date only from the beginning of the current year, from which date the cold stores at present utilised were rented from the lessees of the Government Meat Markets.

It may be well to recapitulate briefly the history of the Board from its inception. In 1895 the Hon. G. H. Reid, in his position as Premier and Colonial Treasurer, recognising the fact that upon finding markets for our surplus products, and assisting the producers of the Colony to get more closely into touch with consumers, rested in a great measure the future prosperity of a Colony so eminently suitable for the growth of crops and stock, recommended the appointment of the Board, which was thereupon selected and called into existence under the following Patent, issued under the hand and seal of the Lieutenant-Governor of the Colony, on the 29th October, 1895, and recorded in the Register of Patents 4th November, 1895:—

By His Excellency the Honorable Sir FREDERICK MATTHEW DARLEY, Knight, Lieutenant-Governor of the Colony of New South Wales and its Dependencies.

To:—

GEORGE SKELTON YUILL, Esquire, Chairman;	THOMAS JESSEP, Esquire;
The Honorable ALEXANDER KETHEL, M.L.C.;	JOHN WILDRIDGE, Esquire;
GEORGE MAIDEN, Esquire;	THOMAS C. WORBOYS, Esquire; and
HENRY LEE, Esquire;	JOHN LOW THOMPSON, Esquire,—
CHARLES FREDERICK LINDEMAN, Esquire;	

Greeting:—

Whereas it has been determined to appoint a Board of Advice to assist the Government of the Colony of New South Wales in promoting the interests of the producers of the said Colony in British, Colonial, and Foreign Markets: Now, therefore, I, Sir Frederick Matthew Darley, the Lieutenant-Governor aforesaid, do, with the advice of the Executive Council, hereby appoint you, the said George Skelton Yuill, the Honorable Alexander Kethel, George Maiden, Henry Lee, Charles Frederick Lindeman, Thomas Jessep, John Wildridge, Thomas C. Warboys, and John Low Thompson, to be members of such Board of Advice accordingly, and you, the said George Skelton Yuill, to be Chairman thereof.

Given under my hand and the Seal of the Colony, at Government House, Sydney, in New South Wales aforesaid, this twenty-ninth day of October, one thousand eight hundred and ninety-five.

(L.S.)

FREDK. M. DARLEY,
Lieutenant-Governor.

By His Excellency's command,
G. H. REID.

Entered on record by me, in Register of Patents No. 17, page 148, this fourth day of November, one thousand eight hundred and ninety-five.

For the Colonial Secretary and Registrar of Records,—

CRITCHETT WALKER,
Principal Under Secretary

In the above selection, it will be noticed that care was taken to appoint a number of practical men of known business capacity, whose long experience and close association with the various products of the Colony were calculated to make their advice of material service in inaugurating any system having for its object the advancement of the growers' interests. Representing agricultural, pastoral, dairy, vineyard and orchard produce, timber, meat refrigeration, and shipping, it was anticipated that their advice would be of a thoroughly practical nature, and their recommendations such as would secure adoption by the Government and be of immediate service to the producers.

The Board, at its first sitting, recommended the appointment of Mr. Jas. Stephenson, late of the Department of Agriculture, as Secretary *pro tem*, a position which was afterwards confirmed to him, by advice of the Executive Council, under the hand of His Excellency the Governor, early in 1896.

From the first, the Board fully recognised that, in order to secure to New South Wales a fair share of the world's markets, and place our producers on as good a footing as those of other British colonies and foreign nations, some immediate steps were necessary; and, as the interests of the producers were likely to be best consulted by taking them into confidence, a series of meetings was arranged for, the dairying, timber, meat, wool, and wine industries being among the first to receive attention.

In

In regard to the dairying industry, it was at once found that an apparent conflict of interests, and some misunderstanding of the Board's recommendations by some of the Sydney manufacturing and export firms, tended to retard any movement the Government might be advised to make in the direction of simplifying for the producer the marketing of his goods to best advantage. A large and representative conference of country producers, however, met and discussed the question of Government supervision and assistance, finally deciding in favour of Government inspection and grading, the establishment of a representative in London to look after produce, the giving of prizes to export factories, Government assistance in obtaining reductions in freight and facilities of transport, the encouragement of small producers' factories, with proper diffusion of scientific information, &c., &c.

The resolutions adopted by the Conference being in accord with the opinions of the Board, the Government was advised to take steps to carry out a comprehensive scheme to further the industry by establishing cold stores, appointing qualified officers for grading, &c. A set of regulations was also directed to be drawn up (*Appendix* p. 37) and submitted to the Government for approval.

Having been approved, the Regulations were printed in anticipation of the coming season; but before any further steps had been taken, an influential deputation waited upon the Premier to represent that, instead of wishing the Government to assist them in any way, the producers were perfectly satisfied with the way in which they were being treated by the companies and agents, and that, as the latter had provided all necessary facilities and largely invested capital, any interference would be both uncalled for and injurious.

Meantime a meeting of representative saw-millers, timber merchants, and others was convened, and resolutions were passed in favour of Government grading and branding, also of the establishment of an officer in London to watch markets and influence the trade to this Colony. The report of the meeting was handed to the Honorable A. Kethel, M.L.C., for consideration and report.

A conference of those interested in the export of meat sat on several occasions, and finally arrived at the conclusion that proper supervision of all meat for export, the issuing of certificates as to condition, the absolute prohibition of export of any meat without such certificate, and sundry modifications as to freights, dues, &c., were proper questions to be dealt with by the Government. [*Appendix* p. 38.]

Those interested in wool were asked to confer and say whether Government assistance would be of any value in furthering the interests of the pastoralists. The reply of the Wool Brokers' Association was in the negative; and the Board contemplated calling a conference of pastoralists themselves, but this was afterwards abandoned.

The bacon-curers and others interested in that trade were called together, and reported that the Government could best benefit the industry by procuring for the use of farmers in the various districts stud boars of recognised merit, and sending lecturers round to instruct growers in the proper methods of breeding, feeding, &c. [*Appendix* p. 39.]

In July, 1896, the first practical work of export was undertaken by the Board, when the question of exporting a trial shipment of oranges to London was dealt with. As will be seen by the report (*Appendix*, p. 39), the growers themselves gave scarcely any assistance; but, notwithstanding this drawback, the experiment conclusively established the fact that, at the time of our greatest plethora of supplies, the British market was so bare that exporters might reasonably expect to realise about 100 per cent. more for their produce than Sydney prices.

In August, 1896, the Premier decided to place the Board under the Minister for Mines and Agriculture, who met the members and discussed their various recommendations.

The general scheme advocated by the Board was found to correspond closely with the Minister's views, and proceedings were at once taken to carry out the various proposals.

The metropolitan butter exporters again came forward to urge a policy of non-interference, and assured the Minister that Government supervision was utterly uncalled for and unnecessary. The Minister promised to make full inquiries, but maintained that, as it was not proposed to make supervision compulsory, no injury to vested or other interests could result.

The Board having recommended the establishment of an export scheme in connection with the hare and rabbit pest, and the same being approved by the Government, an expert grader and packer became necessary; and, after careful inquiries, the services of Mr. George Bradshaw, assistant grader at the Victorian Export Depôt, were secured.

To make the export scheme known in the infested districts, public meetings were called at Bathurst, Goulburn, and Carcoar, and the scheme explained by the Secretary. The Melbourne exporters at once took the matter up and sent buyers into the various districts, with the result that an export trade was immediately established, leading, during the first four months, to the destruction of over 56,000 hares. Owing to the drought and the comparatively low prices in London, rabbits were not handled in large quantities, but everything points to an enormous trade in these during the coming winter.

The offering of a £50 prize at the Easter Show of the Royal Agricultural Society in 1896 for the best five boxes of butter, packed for export and stored for six weeks, having created a great amount of interest and led to a spirited contest among the producers of all the Colonies, it was decided to offer this season prizes for other export produce at the same show, and a special list was prepared (*see Appendix* p. 43), comprising butter, poultry, sheep, wheat, barley, bacon, meats and soups, dried and preserved fruits, rabbits and hares prepared and packed for export. The total list of prizes offered amounted to £280; but, except in butter, which again brought forward a large entry, the exhibits were so few, and in some cases so indifferent in quality, that only £175 were finally awarded by the judges.

This result may be regarded as somewhat disappointing; but even the negative results were such as to encourage the belief that similar measures next year will meet with much greater success. It was conclusively shown that, before we can expect to capture even a share of British and Foreign trade in most of our exportable products, we have much to learn in producing and preparing; and one of the chief duties of the Board will be, by means of object lessons and experiments, to show producers what to grow, how to grow, and how to prepare for the various markets.

In March of this year Mr. Lindeman submitted his report (*Appendix* p. 44) on the wine industry of the Colony, giving at length the opinions of the leading vignerons and manufacturers, the general opinion being in favour of an alteration in the excise on distillation by reducing same from 14s. to 9s. for spirit distilled

distilled from N.S.W. grapes—this being the difference already established in South Australia. This lower excise would, in the growers' opinion, lead to much more extensive areas of land being placed under vines, with a consequently larger supply and a certainty of remunerative prices all round.

The Hon. A. Kethel submitted his report on the question of timber export (*Appendix* p. 46), which generally endorsed the views of the Saw-millers' Conference held in February, 1896. The Board commended the report to the favourable consideration of the Government.

With last year's orange shipment such a pronounced success, the Board anticipated that growers would ship largely on their own account during the current season; but it was found that, with rare exceptions, they did not respond. A sufficient quantity was therefore purchased to test the possibility of shipping large lots as ordinary cargo. In all 1,154 cases were shipped, and, although many arrived in good condition and sold up to 16s. and 17s. per case, there was a great deal of waste in the lower grade fruit, and the experiment was not a commercial success. The London salesmen strongly advise all citrus fruit to be shipped in cool storage in future, as the extra cost is much more than compensated for by the certainty of landing the fruit in prime condition. A full report of this shipment is now in preparation.

In July, at Hawkesbury College, was held a conference of dairymen and others interested in the dairying industry and the export of butter. Among other questions discussed, that of Government supervision occupied a prominent place, and it was found that the representations made to the Government against interference had not the support of the producers. On the matter being put to a vote, a majority of 82 to 7 declared in favour of Government supervision of all butter intended for export. A general vote of agriculturists in conference at the College was unanimously in favour of increased activity in regard to placing our export produce properly on the markets of the world, and generally endorsed the policy of the Board.

From November, 1895, to 1st September, 1897, the Board has sat as follows:—

Total number of meetings	70
G. S. Yuill, Esq., attended	28
Hon. A. Kethel attended	47
Thos. Jessep, Esq., M.L.A., attended	55
J. L. Thompson, Esq., attended	53
C. F. Lindeman, Esq., attended	40
Geo. Maiden, Esq., attended	55
T. C. Worboys, Esq., attended	19
H. W. Lee, Esq., attended	31
John Wildridge, Esq., attended	43
Secretary attended	70

The members have undertaken the following duties on behalf of the Board:—

G. S. Yuill, Esq., Chairman.—Various conferences. Is now, for the second time, on a visit to Britain, where he will combine with his own affairs such inquiries as may be of benefit to the Board in its deliberations.

Hon. A. Kethel, M.L.C., Vice-Chairman.—Various conferences. Visited Victoria and Tasmania in the interests of the timber trade. Is now in Britain on private business, combined with inquiries *re* export of timber and other commodities.

C. F. Lindeman, Esq.—Travelled throughout the colonies, prosecuting inquiries as to the best means of furthering the interests of viculturists in New South Wales. Conferred with the vigneron and reported at length.

John Wildridge, Esq.—In a series of conferences with producers and shippers, acquired much valuable information *re* export of meat, and embodied same in a report. Is now in Britain on private business, and intends to give the Board the benefit of any information acquired touching the export of perishable produce.

Thos. Jessep, Esq., M.L.A., Acting Chairman.—Attended various conferences. Has made exhaustive inquiries, in this and adjoining colonies, touching the export of fruit, &c.

The other members have at all times given great care and attention to the producers' interests, and have devoted much valuable time to the deliberations of the Board, contributing at the same time much information of value to the producing interests of the Colony.

The Secretary has visited Victoria, prosecuting inquiries as to Government supervision of perishable produce there, and has addressed public meetings and attended agricultural shows at the following places:—Bathurst, Carcoar, Goulburn, Inverell, St. Ives, Thornleigh, Dundas, Parramatta, Dural, Wollongong, &c.; has furnished many reports on a variety of subjects, and generally controls the working of the Government Export Depot.

Among many other schemes which have engaged the attention of the Board, and which form a part of its programme, may be mentioned the following:—

- (1.) Increased facilities in railway and steamship carriage for perishable products, more careful supervision of same in transit, and adjustment and reduction of freight.
- (2.) Rigid and impartial inspection of all export food supplies, with Government certificates of quality, and, where necessary, prohibition of the export of any produce unfit for human food, or otherwise likely to damage the reputation of New South Wales products.
- (3.) The establishment at ports of discharge of such a system of supervision as may conduce to greater care in handling and better systems of marketing our produce.
- (4.) Creating, as an important branch of the Board's functions, a bureau of information on all matters connected with British and foreign markets, and the dissemination of useful information to producers and merchants by means of paragraphs, pamphlets, &c., along with the publication of cable and other news of value to shippers.
- (5.) Procuring reliable information as to proper methods of preparing, packing, and shipping produce to suit the various markets, and, where necessary, experimenting on a commercial scale with the shipment of various products to such markets as may be available.

The

The following financial statement shows exactly what the Board is costing the country:—

Amount expended, November, 1895, to June 30th, 1896—	£	s.	d.
Working expenses, furniture, stationery, prizes, and sitting fees	254	0	10
Secretary's salary	163	11	7
Total	417	12	5
Amount expended, July 1st, 1896, to June 30th, 1897—			
Working expenses, purchase of fruit, prizes, sitting fees, &c., &c.	1,763	10	11
Secretary's salary	250	0	0
By returns received for oranges sold in London, &c.	1,143	6	6
Total cost to June 30th, including all prize moneys, fees, salaries, travelling and other expenses, cold store rent, &c.....	1,287	16	10

It may be added that from 30th June the receipts from the cold stores for freezing, grading, &c., practically cover the expenditure, and should the producers take advantage to the anticipated extent of the export facilities offered, the whole of the Vote for 1897-8 will be available for experiments, prizes for exportable produce, and the general encouragement of production for export purposes.

When it is considered that other colonies have for years past been spending lavishly to encourage an export trade, the results obtained from such a small expenditure here cannot but be gratifying, and, as will be seen from the Regulations governing the various classes of produce (*Appendix*), the charges made are expected to make the general scheme—apart from experimental work—entirely self-supporting.

As to the experiments, the small amounts required, and the probability of returns nearly or altogether equal to cost, lead to the conclusion that the benefits derived from the Board's efforts will be obtained at little or no cost to the Colony.

Should this end be achieved, the labours of the Board as a body, and the sacrifice of time on the part of its members, will not have been thrown away, but will doubtless meet with the approval of the producers, in whose interests it was originally established.

Appendix.

I.—BUTTER.

REPORT of Conference of Country Butter Producers.

RESOLVED:—

1. That, in the opinion of this Conference, all butter for export should be examined, graded and branded, by a Government expert before shipment; if possible, at a common centre.
2. That, in the opinion of this Conference, a Government official, properly qualified, should be appointed in London to watch the interests of produce shipped under Government auspices.
3. That this Conference affirms the principle of holding exhibitions and granting substantial prizes to factories and others producing butter for export under conditions adapted from those obtaining in Denmark and elsewhere.
4. That, in the opinion of this Conference, the Government should at once proceed to arrange with shipping companies for lower rates of freight, and should endeavour to obtain a rate of (say) a half-penny per pound, subsidising or otherwise arranging with the various Companies.
5. It was suggested that any efforts made by the Government through the Board towards encouraging the smaller farmers to produce superior butter, by such means as local creameries, new methods, improvement of herds, &c., would go far towards making the export of butter the success it should be.
6. That, the Government be requested to arrange for large storage accommodation in Sydney with facilities for packing, grading, freezing, branding, &c., and that refrigerating cars be made available for conveying butter to such stores direct, for handling and shipment under Government auspices.

II.—BUTTER AND CHEESE.

SHIPPING Regulations (Butter and Cheese).

Treasury Department, Board for Exports, Sydney, 2nd January, 1896.

THE following arrangements, having been made by this Board for the shipment of butter and cheese to London during the season 1896, are published for the information of intending shippers. Preliminary estimates of probable space requirements should in all cases be sent to the Board at least one month prior to date of intended shipments:—

Applications for Space.

1. As the Board is held liable for the freight on all space engaged, no application for space will be entertained unless made on the form marked A, which renders persons applying for space liable for the freight due on same, or on any portion of same which may be allotted to them.
2. Persons acting as agents must apply on form B, and an authority on Form C from the person for whom they are acting must accompany their application.
3. A separate application must be made by agents in respect of each person for whom they may be applying for space.
4. The necessary application forms are supplied by the Board; and, in the event of the total space applied for exceeding that available, a *pro rata* distribution will be made amongst the various applicants.
5. Notice of the space required must be given to the Shipping Companies by the Board at least ten days prior to the sailing of the vessels from Sydney, and only such space will be secured as the Board may receive applications for at least twelve days prior to the dates mentioned.

Butter and Cheese Cases.

6. With a view to economising space in transit it is specially desirable that packages of a uniform size should be adopted. Sample cases most in favour with buyers can be seen at the depot. The inside measurements are:

Butter Cases.—12 inches by 12 inches, and 12 inches deep, weighing not more than 11½ lb.

Cheese Cases.—Length, 22½ inches; diameter, 13 inches; weighing 19 to 20 lb.; ends, 1 inch thick; centre boards, ½ inch thick; sides, ⅓ inch thick.

7. It is specially desirable that only well-seasoned timber be used for butter cases, as mildew rapidly affects the butter where imperfectly seasoned timber has been used in the manufacture of the boxes. Badly-nailed, indistinctly-branded, second-hand, or soiled boxes will not be shipped.

The timber to be used for butter and cheese cases is to be New Zealand white pine, or other timber approved by the Board.

Packing

Packing of Butter and Cheese.

8. The butter cases must be new, and lined with the best waterproof butter paper, put in the box in two strips only, so that the solid square of butter may be shaken out with the paper adhering to it.
Each case should contain 57 lb. of butter, which would allow for shrinkage of 1 lb. during voyage.
Cheese cases should contain two cheeses, of not less than 56 lb. each, or four of 28 lb. each.

Branding of Butter and Cheese Cases.

9. Both ends of each case must be legibly branded with the name of the factory at which the butter or cheese is manufactured. Dark colours only must be used, and the letters should not be less than $1\frac{1}{2}$ inch in length (red, pale blue, pale green, and similar colours are forbidden). The net weights of butter and cheese should also be branded on the boxes.
In the case of mixed or blended butters, shippers will only be permitted to brand their boxes with letters or figures not exceeding three in number, and not less than 4 inches in length.

Despatching of Butter and Cheese.

10. In despatching butter and cheese, care should be taken to see that each package is securely nailed with $2\frac{1}{4}$ -inch barbed nails, and properly branded; and also that a way-bill, giving full particulars of the consignment (numbers, brands, weights, &c.), accompanies it, addressed to the Government Butter Expert, Refrigerating Works, Sydney.

11. Butter and cheese for shipment by any of the vessels named from time to time must reach the Refrigerating Works at least seven clear days prior to the sailing from Sydney of the vessel by which it is intended to ship it, when the Board will undertake to carry out all arrangements connected with the receiving, chilling, examining, branding, and shipping of same at a cost of 3d. per box.

12. All butter and cheese prior to shipment will require to be examined and approved by some person or persons appointed for that purpose by the Board for Exports.

13. Any person forwarding inferior butter or cheese will be debarred from shipping during the remainder of the season, and all rejected butter and cheese must be removed by the owner thereof or his agent immediately upon receiving notification of its rejection, otherwise it is liable to be sold at owner's risk.

Suggestions.

Directors of factories where cheese is made should bear in mind that the butter made during the months of December and January usually arrives in London to meet a falling market; and that consequently cheese-making might with advantage be started during those months, as on arrival in London it would be most likely to command a good price. Any factory having a good cheesemaker under the Canadian system would do well to make at least a portion of its milk at the period named into cheese, for the reason that unless the Board can gather consignments of at least 50 or 60 tons a difficulty arises in securing a ship's chamber, as no other produce may be carried together with cheese in the same chamber. Combined action in this respect by the factories would insure cheese of a uniform age—a result absolutely necessary where good prices are desired.

A.

Application for Space for Shipment of Butter and Cheese to London when services of an Agent are not employed.

Sir,

I have the honor to apply for space in the _____, sailing on the _____, for _____ tons gross weight of _____, for shipment to London; and I hereby guarantee to pay the full freight, viz., $\frac{3}{8}$ of one penny per lb. on this space if same be allotted to me or upon any portion of same which may be allotted to me.
I also guarantee that this _____ is the produce of the Colony of New South Wales.

I have the honor to be, Sir,
Your obedient Servant,

To the Secretary, Board for Exports, Sydney.

B.

Application from Agent for Space for Shipment of Butter or Cheese to London.

Sir,

I have the honor to apply, on behalf of _____, for _____, for space in the _____, sailing on the _____, for _____ tons gross weight of _____, for shipment to London; and I hereby guarantee to pay the full freight, viz., $\frac{3}{8}$ of one penny per lb. on this space if same be allotted to me, or upon any portion of same which may be allotted to me.

Attached is authority from _____
I also guarantee that this _____

_____ for me to act as his agent.
_____ is the produce of the Colony of New South Wales.
I have the honor to be, Sir,
Your obedient Servant,

To the Secretary, Board for Exports, Sydney.

C.

Authority for Agent to act for Person shipping Butter or Cheese to London.

I hereby authorize Mr. _____

_____ tons of _____ to act as agent for me in the shipment of _____ per s.s. _____ to London.

I have made no application, direct or otherwise, to the Board for Exports, for space for this lot of

Dated—
Address—

Published by order of the Board,
JAMES STEPHENSON,
Secretary.

III.—MEAT.

REPORT of Final Meeting of those interested in Meat Exports.

11 February, 1896.

AFTER several meetings were held, in response to the invitation of the Board of Advice, the following minute was agreed to by those present:—

The following are the means by which, in the opinion of the meeting, assistance to the trade could be rendered by the Government, the object of the suggestions being more the extension and improvement of the various services now carried on under State supervision, than any further enlargement of its powers in the control of private industry:—

1. Reduction of railway freights on live and dead stock for export, with increased facilities for rapid transit.
2. Special legislation annulling the power of the Sydney Municipal Council to claim dues on stock intended for slaughter for export.
3. Supervision, under the direction of the Board of Health, of all meat for export at the place of slaughtering, including a certificate testifying to its fit condition for human consumption, and absolute prohibition of export of any meat without such certificate.

The Secretary Board for Exports, Sydney.

WM. McMILLAN,
Chairman.

(See also folio 37.)

IV.—BACON.

REPORT of Bacon-curers Conference.

Sydney, 12 February, 1896.

A CONFERENCE of bacon-curers and others interested in the trade was held under the auspices of the Board in the Secretary's room this day at 11:30 a.m. Present:—Messrs. G. Murphy (in the Chair), J. McLean, H. Joyce, A. C. Fletcher, S. Wansey, and J. Wansey.

Mr. Principal Thompson represented the Board, and briefly introduced the subject under consideration. He pointed out that with an enormous territory, our climate, and the immense amount of pig-food we could produce, how absurd it seemed that we went on importing ham, bacon, salt pork, and even live pigs from year to year. He hoped this Conference could suggest some measures whereby we could, at an early date, become large exporters instead of importers, and promised that the Government, through the Board, would give effect to any reasonable suggestions that might be made.

Mr. G. Murphy, Leichhardt, was moved to the Chair, and opened the proceedings.

He remarked that in this, as any other reform, we must begin at the beginning, and the first point was the improvement of the breed of pigs.

The members of the Conference, at some length, discussed this aspect of the question, and it was finally resolved:—That the Government should be asked to supply, for the use of the pig-breeders, boars of recognised breeds, and that same should be placed in the hands of intelligent farmers in the various districts for general service; the Board to frame the necessary regulations, and exercise control over the boars so supplied.

It being recognised by the Conference that a great amount of ignorance exists among farmers as to the proper treatment of pigs, it was resolved:—“That the Government should be asked to appoint experts to travel in the Colony and lecture on the breeding and feeding of pigs, suitable weights for markets, and cognate subjects.” The lecturers should be capable of instructing farmers and others in all branches of pig-breeding, the best breeds, age of maturity, feeding, topping, and marketing. A consensus of opinion on the part of the Conference favoured the “Improved Berkshire” as the model bacon pig of the present day.

Although Mr. Thompson had stated that the Board could not touch upon any question relating to the fiscal policy of the Colony, it was thought advisable to put on record the opinion of the Conference, as follows:—Resolved,—“That the Bacon-curers Conference, here assembled, desires to enter a protest against the removal of duties from bacon and hams.” It was pointed out, in this connection, that in ordinary seasons the adjoining Colonies have better facilities for pig-breeding than this Colony possesses, and can flood the market with live pork whenever there is a margin of profit, the cheap intercolonial freight being also against our farmers. It was not thought that any immediate prospect existed for this Colony to export at a profit its pork supplies, which are not equal to our own necessities; but the Conference was of opinion that when the time comes, any concessions in freight the Government can arrange would be of great importance in encouraging the export of pork, ham, and bacon.

The Secretary was asked to embody above recommendations in a report, and submit same to the Board, with the signature of the Chairman.

JAS. STEPHENSON, Secretary.
February 12th, 1896.

Approved as correct,
GEO. MURPHY,
Chairman.

V.—ORANGES.

Experiment in Orange Shipping by the Board for Exports.

(Jas. Stephenson, Secretary.)

PART I.

It has long been recognised that, with the constantly increasing area of orangeries, and the coming into bearing of those planted in boom times, our small population is quite inadequate for the consumption of all, or even a large proportion, of the fruit grown. Spasmodic attempts have from time to time been made to find permanent markets outside the Colony for this class of produce, and some enthusiastic gentlemen, notably C. B. Cairnes, Esq., of Parramatta, have experimented extensively and with a fair amount of success.

The great majority of our growers, however, have shown an amount of apathy in looking after their own interests as remarkable as it is regrettable.

Being reasonably satisfied that, under proper conditions of preparation and transit, a market for our surplus for years to come would be found in Britain, the Board, with the sanction of the Government, decided to arrange for a representative shipment being sent to London as an experiment in cool storage, and with this end in view, called a conference of fruit growers and others interested in the matter early in July. The meeting, although fully advertised in the leading newspapers, was attended by only *three growers*. Failing to get the growers interested in the matter, it was decided to purchase from them a sufficient quantity to fill a small insulated chamber on one of the mail steamers, and a sub-committee, consisting of Thos. Jessep, Esq., M.L.A.; Mr. Principal Thompson, Hawkesbury College; C. B. Cairnes, Esq., of Parramatta; and Mr. Jas. Stephenson, Secretary to the Board, was appointed to carry out the shipment.

Messrs. Jessep and Stephenson visited the principal orchards in the Parramatta, Dural, Galston, and Castle Hill districts, while Mr. Thompson undertook Kurrajong and neighbourhood. In the latter district considerable success was achieved; but the Sherwood growers were not only reluctant to risk small quantities, but in some cases would sell only at exorbitant rates or not at all. Besides this, the condition of the fruit, owing to insect and fungous pests, was not at all what could be desired. The orchards in many cases were simply smothered with scale, Maori, aphid, and other parasites, and showed evidence of great carelessness in cultivation.

It was found that many of the best orchards had been sold for the season to fruit merchants in Sydney and elsewhere and the sub-committee, in order to secure the necessary quantity in the limited time at its disposal, turned its attention to the firms which had purchased the season's crop from the growers. Here more of a business spirit was shown, and in a short time all necessary arrangements were made.

To get the necessary grading and packing done under proper conditions was the next difficulty, and it was recognised that to have this part of the work performed in a perfunctory manner was to court disaster. It was, therefore, decided that all fruit should be subject to the following conditions, which were furnished to the growers and others concerned, and that the packing be done in Sydney under proper supervision:—

1. All fruit must be carefully *cut* from the trees; on no account pulled.
2. The fruit must be handled with the greatest care, so as to avoid bruising.
3. When cut, the fruit must be placed in trays or open boxes, and exposed freely to the air (under cover) for at least five days, if dry weather, or seven days if moist.
4. The fruit must then be packed in gin-case boxes, and carefully handled in transit.
5. The fruit must be perfectly clean, thin-skinned, and free from blight, scale, or frost-bite, and must be of an average size of 3 inches diameter.
6. The fruit must be delivered at a place in Sydney, to be afterwards named, on or before Tuesday, the 4th August, the cases to be returned to the growers.
7. The fruit shall be submitted to the inspection of an Expert provided by the Board, who shall reject any fruit unsuitable for export, and whose decision shall be final.

NOTE.—The fruit must on no account be cut in wet weather, or when the dew is on it.

Mr. Geo. Maiden, a member of the Board, kindly placed the necessary space at its disposal in the conveniently-situated stores of Messrs. Goldsbrough, Mort, & Co., at Circular Quay, where a staff of packers graded, culled, and packed the fruit under the directions and supervision of Mr. A. H. Benson, Fruit Expert to the Department of Agriculture.

The

The total number of cases purchased was 2,076, which after culling and grading, resulted as follows:—

First grade	55 cases.
Second „	987 „
Third „	698 „
Culls	245 „
Used to make up difference in capacity of cases	91 „
	2,076 „

In packing, a specially-prepared paper, glazed on one side, was used, the cost being 3s. 3d. per ream of 2,840 wrappers. The fruit was carefully wrapped, the thickest folds of the paper covering the stem end so as to prevent punctures in the adjoining fruit.

The cases used were of the following dimensions:—28 inches x 14 inches x 8 inches inside measurement; tops, bottoms, and sides $\frac{3}{4}$ inch thick; ends and partitions, $\frac{1}{2}$ inch thick—one partition to each case.

Three laths, $\frac{1}{2}$ inch thick, were nailed on one side of each case to provide ventilation, and the joints of cases were open, $\frac{3}{4}$ inch. It was stipulated that only Colonial pine or other flavourless wood should be used, and that it should be thoroughly seasoned.

It was found that these cases held about 5 per cent. more than the ordinary gin-case.

The fruit was packed the deep way of the case, in rows of three, and, when the case was completed, projected a full inch or more above the top. The lids were then adjusted, and, under a firm pressure, nailed in their places, thus ensuring that no reasonable amount of handling would cause the fruit to get loose and knock about. The “sweating” or toughening process adopted in the orchard was meant to allow of firm packing being done; newly-gathered fruit would spoil under such treatment.

The cases were branded with the names of the producing districts, the grade of fruit, and a registered initial whereby each separate lot will be identified when the returns and report of the London salesmen come to hand.

The insulated storage on the steamer was arranged to be kept at a temperature of from 45 to 52 degrees Fahrenheit, which has been found to be most suitable for fruit.

The shipment being an experiment, it was to be expected that the expenses would be somewhat heavy, and this was found to be so. The principal item of expenditure was, of course, freight, which for 1,740 cases amounted to £343 13s. 4d., with insurance £2 7s. There is every reason to believe that, when the trade in fruit is properly established, this item will be reduced to the equivalent of meat freight, or something like 50 per cent. under that now charged.

The cost of packing can also be much reduced when the growers are taught the proper method, and can have grading and packing done in the orchard. This must be attended to with scrupulous care, and to ensure success of future shipments it is strongly insisted on that no fruit should be allowed to leave the Colony without special inspection before shipment, and the “approved” brand of the Board for Exports affixed.

A cable message from the Hon. the Agent-General reports the sale of the fruit, which arrived in splendid condition, and realised prices which fully demonstrate the important fact that we have in London a market at highly remunerative rates for all our medium grade fruit. It is no exaggeration to say that the success of this experiment means to our orange-growers an increased income totalling something like £30,000 per annum, the only stipulation being that regularity of quality and constancy of supply be maintained throughout the season.

The following is an approximately correct return of the shipment so far as present information goes:—

	£	s.	d.	s.	d.
Total cost of 2,076 cases	487	10	6	=	4 8 3 per case.
Freight on 1,740 cases	343	13	4	=	3 10 8 „
Cases, wrapping-paper, rail freight, wharfage, and charges.....	104	2	1	=	1 2 3 „
Cartage, wrapping, packing, and expenses	64	10	0	=	0 8 9 „
	<hr/>				
Total cost.....	£999	15	11		
	<hr/>				
By a/c. sales, London.....	1,100	0	0	=	12 7 7 „
To gross cost cif., London.....	£999	15	11		
Less returns, culls, &c.	31	11	4		
	<hr/>				
		968	4	7	= 11 1 5 „
	<hr/>				
Net profit.....	£131	15	5	=	1 6 17 „

It will thus be seen that, despite the extra expenses unavoidable in such an experiment, a handsome profit has been realised. When full details come to hand it is intended to publish an accurate and comprehensive statement, showing exact returns from each individual lot.

With an open and favourable market as an incentive, our fruit-growers should be stimulated to further efforts on more scientific lines; and it is confidently anticipated that in a few seasons our orange crop will be deemed of sufficient importance to warrant British fruiterers making extensive arrangements to purchase in advance direct from the growers.

No effort must be spared, however, to ensure gradual and consistent improvement in quality, as the price obtainable for top grades will more than pay for additional care and attention. I would also again strongly insist on efficient supervision of future shipments, and the securing by the Board of all necessary insulated freight space, as a few carelessly-packed consignments would strangle in its infancy this promising and remunerative industry.

PART II.

THE following correspondence, relating to the experimental shipment of oranges, will be seen to fully bear out the theory of the Board as to the possibility of our supplying the British markets throughout our flush season, thereby relieving the surplus stocks and securing better returns to the growers.

The full returns, now to hand, show even a better result than the cablegrams led us to suppose, and the general statement attached hereto gives a full account of the various lots and actual results from each.

Briefly summed up, the necessary precautions to be observed to insure success are to be found in the previous notice on the subject, at page 716 of the October *Gazette*, and, as there explained, the whole of the work of grading and packing could, with care, be done in the orchard.

The fruit should be cut when fully matured and coloured, but not over-ripe, and the greatest care must be exercised in culling and grading, so that every case will contain exactly the same sized and equally coloured fruit. Two grades might with advantage be made, *i.e.*, 3-inch and 2 $\frac{3}{4}$ -inch diameters. Nothing under the latter size should be packed. Fruit in any way damaged by parasites, thorn-pricks, frost-bite, or otherwise, must be rigidly excluded, as well as any which have been in the least degree bruised. A fall of even 2 feet will render an orange quite unfit for packing.

The sweating process is also imperatively necessary to prevent damage in packing, by giving the necessary toughness and elasticity to the skin.

The

The same necessity exists for tight packing, and no injury will result from a good steady squeeze after the fruit is properly matured. A perfectly safe limit is to allow half the diameter of the top layer of fruit to project over the top of the case; then leave the case open for an hour or two, and press the lid firmly and steadily into position when nailing on. Loose packing, by allowing the fruit to shake about, is responsible for most of the damage occurring in transit.

The system of cool storage adopted in this instance solves at once the difficulty of long-distance shipping, and, as will be seen from the letters of the Agent-General and the salesmen, we have the British market practically to ourselves from August to October; so that oranges sent from here under proper conditions between the middle of June and the beginning of September are likely to meet a ready and remunerative sale.

The Board, with the sanction of the Government, hopes to have such freight arrangements made for the coming season as will allow a weekly despatch of from 2,000 to 5,000 cases, according to requirements. Orange growers should bear this in mind for next season, and notify the Board of their probable shipments in good time to allow all preparations to be made.

It is difficult to arrive at any correct estimate as to the actual returns from our orangeries, as only the fruit known to be marketed seems to have been included in our statistics. However, it may perhaps be within the mark to estimate that, from an orchard in good bearing, an average of two and a half cases per tree per annum should be obtained, and that ninety trees per acre will represent the average plantation.

Allowing twenty-five cases per acre for the extra culling required for this purpose, we have (say) 200 cases per acre fit for export. Even should the net returns equal only 5s. per case—and there is no reason why this should not be exceeded—the returns from an acre would be, in round figures, £50 sterling per annum. This estimate, which may look too good to be true, is by no means an exaggerated one, but it must be borne in mind that to attain to such returns there must be no slipshod cultivation allowed. The trees must be treated with something like generosity in the matter of cultivation and manuring, and not left, like milestones, to look after themselves after they are once planted. Insect and fungus pests must be exterminated, and the trees must be kept in vigorous health, and fed with as much care as you would feed a milch cow, which no one would expect to give a good return if left in a stall all the year round and given nothing to eat.

The northern districts, of the Colony especially, where oranges thrive like weeds, have before them a splendid future, if people would look on fruit-growing as a business, and give the same attention to it as they would bestow on any other industry.

The Government has now shown what can be done under proper conditions, and it rests with the growers themselves to take advantage of the object-lesson.

[Copy of letter from Agent-General.]

Westminster Chambers, 9, Victoria-street, Westminster, S.W.,

2 October, 1896.

Sir,

I have the honor to inform you, in reference to your letter of 17th August last, advising me of the transmission to London per s.s. "Ophir" of 1,740 cases of oranges, that the consignment duly arrived, and the oranges were sold at Monument Yard, London Bridge, on Wednesday last, the 30th ultimo.

I obtained the insertion in the newspapers of notices regarding this experimental shipment, which I placed for sale in the hands of Messrs. Keeling and Hunt, leading fruitbrokers in London, having previously had a knowledge of these gentlemen, as in 1886 they kindly furnished me with a full report of the orange trade for the information of your Government, and gave me three cases of Valencia oranges to send to the Colony as a guide to the mode of packing the fruit. The sale was considered a great success, and, as I informed you in my telegram of the 30th ultimo, realised an average price of about 14s. per case.

The fruit arrived in excellent condition, and the No. 1 grade was much approved, and considered equal to any oranges coming to this market. The letter I enclose from Messrs. Keeling and Hunt will give full particulars as to the condition of the fruit on its arrival, and their opinion with regard to the packing, &c.; and I beg to direct your special attention to their practical suggestions in this regard for future guidance.

I am pleased to say that a considerable amount of interest has been evinced in regard to this shipment. Arriving, as it did, at a time when the English market is very barely supplied with such fruit from any other country, the sale, on the whole, has been particularly satisfactory.

I have little doubt that a good market can be secured at this period of the year if the fruit offered is of good quality.

One fault of this shipment was its unevenness. Care should be taken, if possible, in large shipments, to have the fruit of the very best quality; the mixture of inferior sorts tends to lessen competition and injures the market.

I enclose for your information some of the newspaper comments which have appeared, together with fifty copies of the auction sale, giving the prices realised for each kind of orange.

I have just received from Messrs. Keeling and Hunt the account sales, which I enclose herein, showing net proceeds of £1,111 15s. 2d., for which I have their cheque, which I will pay to the credit of the public account of the Government at the London and Westminster Bank.

The Hon. the Minister for Mines and Agriculture, Sydney.

I have, &c.,

SAUL SAMUEL.

[Copy of letter from Messrs. Keeling and Hunt.]

Monument Buildings, Monument-square, London, E.C., 1 October, 1896.

The Hon. Sir Saul Samuel, K.C.M.G., C.B., Agent-General for New South Wales.

Dear Sir,

We beg to inform you that we landed the oranges ex "Ophir" in very good condition with very few exceptions.

The fruit carried in the refrigerators was fresh and full, some rather cold, with here and there a little waste.

Fifteen boxes were brought over in the hold. The five boxes marked "S. M. Cay," were fairly fresh; five marked "Parker" were rather stale, spotted, and flabby; and five marked "Pumice" were very stale, flabby, and bad. We condemn this style of packing.

Quality.—Good, especially the No. 1, which were excellent. The Nos. 2 and 3 of each mark showed very little difference. The prices realised give the best idea of our buyers' appreciation of the fruit.

Packing.—Good generally. We always recommend the use of tissue paper only, avoiding any soft shavings, sand, pumice dust, or other packing. Those that were well and firmly packed in the white paper only looked very nice when opened; any addition spoils their appearance.

Boxes are very good, allowing a free circulation of air.

Freight is very high, viz. :—4s. 1d. per box, as compared with an average of 1s. 8d., sometimes 1s. 6d. per case for Valencia oranges. These latter cases are nearly three times the size of the Australians, and weigh from 1 cwt. 1 qr. to 1 cwt. 2 qr. gross.

The voyage from Valencia occupies from nine to ten days, and the oranges are loaded in ordinary steamers as general cargo.

Time.—In our opinion, the best time for Australian oranges to come upon this market is from the beginning of August to the middle of October, when supplies from other sources are scarce.

Denia and Valencia oranges form our chief supply, commencing end of October and lasting till end of June, sometimes going into July. Last season from this district, London received 888,725 cases.*

The result of the sale of the 1,740 boxes ex "Ophir" is generally looked upon as very satisfactory.

Yours, &c.,

KEELING AND HUNT.

(F. KNOTT.)

SHIPMENT

* Equal to about 2,300,000 of our export cases.—J.S.

SHIPMENT of Oranges per s.s. "Ophir," 10th August, 1896.—Statement.

Brand.	Owner.	District.	Number purchased.	Grade.	Number shipped.	Culls and Refills.	Prime Cost.	Charges on number shipped.	Gross returns.	Charges, London.	Net returns, London.	Returns from sale of Culls.	Top price per case.	Average price per case.	Profit.	Loss.		
							£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	s. d.	s. d.	£ s. d.	£ s. d.		
A	H and A. A. Griffiths	Kurrajong	288	B	99	47	64 16 0	72 4 0	69 14 9	4 18 8	64 16 1	4 8 5	14 6 14 1	14 0 13 2	18 5 0			
B	do	Seven Hills			98													
C	do	Kurrajong			30													
D	do	Galston	14															
E	G. Roughley	Parramatta	100	C	67	12	22 10 0	25 15 6	44 0 6	3 5 3	40 15 3	1 2 7	13 6 13 1	15 0 13 4	7 16 8			
F	J. Roughley	Galston			21													
G	C. J. Piggott	Parramatta	126	D	121	5	28 7 0	36 5 0	15 6 0	1 1 8	14 4 4	0 9 6	15 0 14 7	16 0 15 6	12 0 9			
H	Rogers & Co.	Castle Hill			20													
I	J. Purser	do	50		47	3	11 5 0	14 1 2	36 17 6	2 9 2	34 8 4	0 5 9	16 0 15 8	16 0 15 8	9 7 11			
J	do	do	44		6		12 10 0	13 3 2	31 18 0	2 5 2	29 12 10	0 11 4	14 6 14 6	16 0 15 6	4 11 0			
K	Hopkins & Lipscombe	Seven Hills	140		116	24	31 10 0	34 15 1	90 8 0	5 19 9	84 8 3	2 5 3	16 0 15 7	16 0 15 7	20 8 5			
L	J. Neil	Parramatta	152		131	21	35 6 6	39 5 10	101 12 6	6 5 0	95 7 6	1 19 8	16 0 15 6	16 0 15 6	23 17 4			
M	do	do*	5		5		1 5 0	1 10 0	2 10 0	0 4 8	2 5 4		10 0 10 0	10 0 10 0		0 7 2		
N	J. Hayes	Bulga	45		1	4	11 5 0	12 6 0	43 13 0	1 14 1	41 18 11	0 7 9	23 0 21 3	23 0 21 3	18 15 8			
O	do	do†	5		1		1 5 0	1 10 0	1 10 0	0 4 2	1 5 10		6 0 6 0	6 0 6 0		1 9 2		
P	W. Dunstan	Kurrajong	26		1	9	6 10 0	4 9 7	7 7 9	0 15 10	11 4 11	1 0 9	17 6 15 5	15 6 15 6	1 6 1			
Q	do	do	6		6				4 13 0				15 6 15 6	15 6 15 6				
R	P. Duffy	Thornleigh	76		66	10	17 2 0	19 15 5	48 16 6	3 6 5	45 10 1	0 18 10	15 0 14 9	15 0 14 9	9 11 6			
S	W. G. Neilley	Kurrajong	300		239	61	75 0 0	71 12 2	129 0 6	9 17 5	119 3 1	5 14 10	12 0 10 9	12 0 10 9		21 14 8		
T	J. Pope & Son	do	250	E	43	30	56 5 0	66 4 1	73 2 6	2 2 0	22 16 0	2 14 7	12 0 11 7	14 0 13 9	12 16 3			
U	do	do			106													
V	do	do	71		7				45 6 0	3 9 5	41 16 7		13 0 12 9	13 0 12 9				
W	W. H. Bowman	do	34		29	5	8 10 0	8 14 1	20 5 0	1 9 2	18 15 10	0 9 5	15 6 13 11	15 6 13 11	2 1 2			
X	U. C. M. Bowman	do	56		3	45	14 0 0	13 9 10	33 1 0	2 5 6	30 15 6	1 0 9	15 0 14 8	15 0 14 8	4 6 5			
Y	John Taylor	Parramatta	62		51	11	13 19 0	15 7 3	36 14 6	2 12 2	34 2 4	1 0 9	14 0 14 5	14 0 14 5	5 16 10			
Z	R. Brown	Ebenezer	45		45		11 5 0	9 10 4	27 9 0	2 3 8	25 5 4		14 6 12 2	14 6 12 2	4 10 0			
AA	J. L. Brown	do	49		49		12 5 0	10 5 3	30 13 0	2 8 6	28 4 6		13 0 12 8	13 0 12 8	5 14 3			
AA	E. J. Ezzy	Kurrajong	192		64	71	48 0 0	36 5 2	48 16 0	6 1 10	79 12 2	6 13 5	15 6 15 3	15 6 15 3	2 0 5			
AA	do	do	3		57				36 18 0				13 0 12 11	13 0 12 11				
S.M.	S. M. Cay	Galston	5		5		1 10 0	1 1 3	3 5 0	0 4 11	3 0 1		13 0 13 0	13 0 13 0	0 8 10			
			2,076		1,740	336	487 10 6	512 5 5	1,195 15 6	84 0 4	1,111 15 2	31 11 4			167 1 2	23 10 7		
															Net profit..	£	143 13 7	

* Treated with Parker's Patent Solution. † Packed in granulated pumice. ‡ Packed in tea-tree bark.

VI.—SMALL GOODS.

SHIPPING Regulations (Hares, Rabbits, Poultry, &c.)

Department of Mines and Agriculture, Board for Exports, 40, Young-street, Sydney, March, 1897.

THE following arrangements, having been made for the handling and shipping of hares, rabbits, &c., are published for the information of shippers. Preliminary estimates of probable numbers designed for shipment should be furnished in all cases at least three weeks prior to date of intended shipments.

Hares.

Should be trapped or snared (not shot), killed, but not gutted. Care should be taken to keep the fur clean, as blood or any other disfigurement of the skin militates against their satisfactory sale.

The carcasses, immediately on being killed, must be forwarded to the Government Export Depot by quick train, and advised by letter or wire on despatch.

The Government Expert will receive, grade, pack, and brand the cases, which will be supplied by the Board for Exports. The charge for handling, freezing, and shipping has been fixed at 2d. each, including cases. (This includes all expenses from railway station to shipboard.)

Rabbits.

Should be trapped or snared, killed, gutted, and bled; the liver and kidneys must be left in the carcass. Care should be taken to keep the fur as clean as possible; this can be attained by hanging over rails in pairs. Cases with a rail from end to end, and holding about fifteen to twenty pairs, are best for this purpose. The carcasses, immediately on being killed, must be forwarded to the Export Depot by quick train.

The Government Expert will receive, grade, pack, and brand them, the charge for handling, freezing, and shipping being 1½d. per pair, cases included. All sweated, damaged, or unsightly carcasses will be rejected, and must be immediately removed by the owner or his agent.

Poultry.

Must be young. Fowls from three to five months old, well-fed, and not under 3½ lb. each, live weight. Older birds, or those in poor condition, will be rejected by the grader.

Ducklings should be from ten weeks to five months old, weighing not under 4 lb. each, live weight. The younger birds give the better prices. White ducklings are most admired in the English market. Old birds will be rejected.

Goslings should not be over six months old, and should weigh not under 10 lb. live weight.

Turkeys.—Gobblers must not be over ten months old, and should weigh not less than 13 lb.; hens not under 9 lb. live weight. If young, the heavier the bird is the better price can be got in proportion.

All fowls must be sent alive to the Export Depot, where the Expert will receive, grade, kill, pluck, prepare, and pack them. The Board will find the cases, freeze and ship the birds at the following uniform rates, which must be paid by the owner or his agent before shipment:—

Fowls and Ducklings	6d. per pair.
Geese and Turkeys.....	1s. „

This covers all expenses except railway freight.

Game.

Any kind of game, such as black ducks, teal, quail, &c., will be received for export when in season, the Expert having the right to reject any over-shot or stale carcasses. Charges will range from 1d. each, including cases, freezing, &c. Live game will be treated as fowl.

Eggs.

In ordinary seasons these can be profitably shipped in cool storage from September to January, and will be received, graded, and packed at a uniform charge of 1½d. per dozen, cases included. Eggs for this purpose should be absolutely new laid. Any suspicious samples will be rigidly excluded.

Best time for Shipping.

Hares and Rabbits.—All the year.

Fowls and Ducklings.—December to April.

Goslings.—December to April.

Turkeys.—September to 1st November (to reach London for Christmas markets).

Eggs.—September to January.

Game.—When in season.

Quantities

Quantities.

The following are the numbers usually packed in cases for export, and shippers would do well to regulate their consignments accordingly:—

Fowls and Ducklings	20 in a crate.
Goslings'	10 "
Turkeys	8 "
Hares	20 "
Rabbits	24 "
Eggs	20 dozen in a box.

The following particulars represent present arrangements for carriage by railway. All railway charges must be paid in advance by the owner:—

Poultry will be conveyed in Railway Commissioners' coops at the following rates:—

For each small coop capable of holding about 12 pairs of fowls or ducks.	Rate.	For each large coop capable of holding about 8 pairs of turkeys or geese.	Rate.
	s. d.		s. d.
Up to 50 miles.....	2 6	Up to 50 miles.....	3 2
51 to 75 "	3 6	51 to 75 "	4 5
76 to 100 "	4 6	76 to 100 "	5 8
101 to 125 "	5 0	101 to 125 "	6 4
126 to 150 "	5 6	126 to 150 "	7 0
151 to 175 "	6 0	151 to 175 "	7 8
176 to 200 "	6 6	176 to 200 "	8 4
201 to 250 "	7 0	201 to 250 "	9 0
251 to 300 "	7 6	251 to 300 "	9 9
301 to 350 "	8 0	301 to 350 "	10 5
351 to 400 "	8 6	351 to 400 "	11 8
And 6d. per coop for every additional 50 miles or part thereof.		And 8d. per coop for every additional 50 miles or part thereof.	

The through mileage distance charged when from or to Branch Line stations.

Coops not to leave Railway premises, but if permitted, and their return is delayed, a demurrage charge of 2s. 6d. per coop per day will be made when delayed over three days.

The owner or his agent must in all cases undertake the procuring of shipping documents, payment of freight and all charges before shipment, also the receiving and disposal of all rejected carcasses, which must be immediately removed from the Depot.

The Board for Exports will not undertake shipment to any particular salesman or firm, but will furnish any desired information as to probable markets and reliable agents for the sale of produce exported under its auspices.

By order of the Board,

JAS. STEPHENSON,
Secretary.

40, Young-street, Sydney.

It may be mentioned that under the foregoing regulations, during the months of May-September, the following number of hares were destroyed:—

Actual number exported	40,560
Rejected, unfit for export	16,000
	<u>56,560</u>

The hares were sold in London market at an average price of 2s. 6d. each, representing over £5,000 sterling, of which £1,000 goes as freight, £235 to the railways, £346 for cold store rent, case-making, &c., and the remaining £3,000 odd is distributed among trappers, buyers, exporters, and others. The balance-sheet, including returns in cash, saving on scalp-money and pasture, &c., shows a net gain to the Colony of over £5,700. The prospective shipments for next year, commencing in March, are estimated at 200,000 hares and 300,000 rabbits, representing, commercially, about £35,000, besides doing much to exterminate pests which have, in past years, cost many thousands of pounds, and which can now be dealt with at a substantial profit.

VII.—SCHEDULE OF PRIZES, ROYAL AGRICULTURAL SOCIETY'S SHOW, EASTER, 1897.

GOVERNMENT Board of Exports Prizes, £280.

(Open to all the Australasian Colonies).

Class A.—Butter for Export, £50. Best exhibit of 5 boxes of butter suitable for export.

Conditions of Competition.

- I.—Each exhibit shall consist of 5 boxes of butter, each of 56½ lb. net weight.
 - II.—No exhibitor shall compete with more than one exhibit.
 - III.—The boxes must be of the latest type of export box (see end of schedule).
 - IV.—The boxes must not bear any distinguishing brand or mark; the necessary labels may be procured on application to the secretary of the society, Sydney.
 - V.—All exhibits competing in this section must be stored in the Government Refrigerating Depot, Sydney, on or before Wednesday, 24th February, 1897.
 - VI.—Each exhibit shall be sealed by the official in charge of the depot, and the seals shall be broken by the judges at the time and place of judging. In all other particulars the exhibits shall be subject to the by-laws and regulations of the Society's exhibition.
- Entries close 20th February, 1897.

Class B.—Poultry for Export. First prize, £10; second prize, £5. Best exhibit of 2 cases each ducks and fowls suitable for export (20 birds in each case), packed for export.

Conditions of Competition.

The birds must be killed, dressed, wrapped and packed, and must be stored in the Government Refrigerating Depot on or before Wednesday, 24th February, 1897.
Particulars as to dimensions, &c., of cases may be had on application to the secretary.
Entries close 20th February, 1897.

SHEEP

SHEEP FOR EXPORT.

- Class C.—First prize, £20; second prize, £5. Best exhibit of 25 Merino Wethers, not exceeding 6-tooth.
 Class D.—First prize, £20; second prize, £5. Best exhibit of 25 Cross-bred Wethers, not exceeding 4-tooth.
 Class E.—First prize, £15; second prize, £5. Best exhibit of 25 Merino Lambs (suckers), not exceeding 5 months.
 Class F.—First prize, £15; second prize, £5. Best exhibit of 25 Cross-bred Lambs (suckers), not exceeding 4 months.

Conditions of Competition.

- I.—All exhibits in this section must be the bonâ-fide property of exhibitor at time of show, and for twelve month previously in case of sheep. Lambs must be bred by exhibitor.
 II.—No exhibitor shall compete with more than one exhibit in each class.
 III.—The sheep shall be judged alive by points, and on the third day of show slaughtered and judged in carcase (two sheep from each pen shall be slaughtered on second day of show and exhibited in pen).
 IV.—The exhibit getting the highest aggregate number of points to be declared the winner.
 V.—The judges shall take into consideration the quality and weight of carcase best suited for export; but in the case of a tie, then the value of skin and fat shall be taken to decide the tie.
 VI.—In case of absolute equality then the preference to be given to the youngest sheep.
 VII.—Evenness of quality and weight shall be considered in awarding the prizes, the range suggested being as follows:—
 For Merinos—52 lb. to 58 lb.; average 54 lb.
 or small do —47 lb. to 52 lb.; „ 49 lb.
 Crossbreds—55 lb. to 65 lb.; „ 58 lb.
 Net freezing weight.
 VIII.—Exhibitors shall declare on entry form that the sheep have been grass-fed.
 IX.—All exhibits considered fit for export shall be killed, frozen, and shipped to London, under the supervision of an expert appointed by the Board for Exports, and there sold by public auction, and reported on by qualified experts. The net proceeds of sale, after deducting expenses, to be the property of the exhibitor.
 Entries close 15th March, 1897.

WHEAT FOR EXPORT.

- Class G.—First prize, £15; second prize, £10. Best exhibit of wheat, 4-bushel sack, representing a bulk of not less than 100 sacks, suitable for export. Grower to sell 100 sacks equal to exhibit by public auction during show if called on to do so by written notice, delivered through the secretary, and failing to supply such quantity of equal sample, to forfeit any prize which may have been awarded.
 Entries close 15th March, 1897.

BARLEY.

- Class H.—First prize, £15; second prize, £10. Best exhibit of barley, suitable for malting, 4-bushel sack, representing a bulk of not less than 50 sacks, suitable for export. (Conditions same as those for wheat.)
 Entries close 15th March, 1897.

BACON AND HAMS FOR EXPORT.

- Class J.—First prize, £10; second prize, £5. Best exhibit of 20 hams and 12 sides of bacon, suitable for export.

Conditions of Competition.

- I.—The hams to be cured, smoked, wrapped, and packed in suitable case for export. Bacon to be green, cured, and packed in suitable case for export (see end of schedule).
 II.—All exhibits to be stored at even temperature, under direction of the Board of Exports, on or before the 24th day of February, 1897. Cases to be sealed by the official in charge of the depôt.
 Entries close 20th February, 1897.

MEATS AND SOUPS FOR EXPORT.

- Class K.—First prize, £10; second prize, £5. Best exhibit of 6 dozen tins colonial meats and Soups, suitable for export, assorted.
 Entries close 15th March, 1897.

FRUIT FOR EXPORT.

- Class L.—Dried Fruits. First prize, £10; second prize, £5. Best exhibit of not less than 10 distinct varieties of dried fruits suitable for export, packed in cases of not less than 28 lbs. each.
 Class M.—Preserved Fruits. First prize, £10; second prize, £5. Best exhibit of not less than 24 varieties preserved fruits (in syrup), suitable for export, packed in glass jars of not less than two quarts capacity each.
 Entries close 15th March, 1897.
 Class N.—Rabbits and Hares for export. First prize, £10; second prize, £5. (For New South Wales produce only). Best exhibit of 24 rabbits and 20 hares, packed for export.

Conditions of Competition.

- The animals must be packed in proper export cases (see end of schedule), particulars of which may be obtained from the secretary, and lodged in the Government Refrigerating Depôt on or before Wednesday, 24th February, 1897. To be placed under seal by the official in charge of the depôt.
 Entries close 20th February, 1897.

NOTE.—In all the foregoing classes no prizes are to be awarded to exhibits which are not, in the opinion of the Judges, suitable for export, as fairly representing what the Colony can produce.

All exhibits of butter, poultry, hares and rabbits, shall be sold by public auction during the show, and the proceeds, after deducting expenses, handed to exhibitor.

VIII.—WINES.

THE WINE INDUSTRY.

(C. F. Lindeman.)

I HAVE now the honor to submit my report dealing with the Wine Industry, and in view of the approaching planting season to suggest that the question be dealt with by the Board, and that a resolution embodying the suggestions therein contained be forwarded to the Honorable the Minister, together with a request that the same may be laid before his colleagues at an early date for approval.
 I have, &c.,
 C. F. LINDEMAN.

First Report, submitted to the Board for Exports, February, 1896.

As a member of the Board for Exports, I have visited South Australia and Victoria with a view to, if possible, further the interests of the wine-producing industry in New South Wales, and my experience is that wherever the State has attempted to directly assist the industry it has been a lamentable failure.

The Victorian Government, some few years ago, in order to stimulate viticulture, offered £2 per acre for all vines that should be planted after a certain date, and the consequence was that people rushed blindfold into the planting of vines, using inferior stocks and indiscriminately planting on any sort of soil, the result being an overproduction of inferior wines unsaleable at any price. The Government now propose, in order to get rid of surplus stocks, to give 3d. per gallon on all wines exported.

This

This will not benefit the grower, as he will get no better price for his wine, but the large shipping merchants will receive any benefit accruing; it may indirectly stimulate trade a little by increasing sales. The shipper—two wines from different colonies being equal—would prefer buying in Victoria in order to get the bonus, but I do not see that it will do much good, as only inferior wines are held, and these cannot be disposed of except for distilling.

Local Central Stores have been advised, but the scheme would be hard to work, as there would be so many different interests; and, unless the Government were to buy outright (a form of State Socialism I do not approve) and blend to make a standard wine, the complications arising would be too many, at all events in the present state of the wine industry of this Colony; we are not yet ripe for it, as we have not over-produced—there are no old stocks of good wines in New South Wales, except in the hands of a very few, who want every drop they have for local consumption.

I cannot too strongly urge upon our Government the necessity of our distillation laws being altered. If they would give encouragement to the production of good spirit, by reducing the excise on all spirit made in the Colony, the people of New South Wales would, in a short time, be supplied with a good, wholesome, *pure* spirit; it is in this direction they can assist the wine industry at the present stage better than any other, as all unsaleable stocks could immediately be turned into the best of brandy, and people who do not now care to plant vineyards on account of the danger of making inferior wines in bad seasons would see that a profit could be made even in these years by distilling their produce, while in good seasons the wines could be sold to the merchant for maturing.

It is a daily occurrence to see publicans brought into the Police Courts for selling spirit which is not only unwholesome but absolutely poisonous. Vine-growers cannot compete on even terms with these poisons, made of no one knows what; but were a moderate excise charged there would soon be a different tale to tell in the increase of the area under vines and the health of the people generally.

Subjoined is a practical letter from Mr. T. Hardy, of Adelaide, bearing on the subject:—

Exchange, Sydney.

I remain, &c.,
C. F. LINDEMAN.

Adelaide, 20 January, 1896.

Dear Sir,

You ask my opinion on the question of what the Government of New South Wales can do to further the wine-growing industry in your Colony.

The success of the experiment by the South Australian Government establishing a *depôt* for wine in London is not yet assured, and cannot therefore be recommended.

The proposal for a national wine cellar in Melbourne appears feasible, but the difficulty would be in carrying it out. If each small grower's wine has to be kept separate and shipped away, it will only increase the present difficulty of placing on the English market a uniform quality of wine in large quantities from year to year. No doubt the wine could be much better cared for than by many of the growers themselves, and if merchants could be allowed to purchase and blend in the cellar it may answer; but if the small lots of different growers are blended by the Government, trouble would arise, as some would say that their good wine would be used to bring up the quality of inferior lots, and it would be nearly impossible to make up blends of uniform quality, as the material to work on would be uncertain, both in quantity and quality, from year to year.

The plan adopted by the Victorian Government of stimulating planting by giving bonuses of so much per acre has proved to be most disastrous to many, and is most unfair to those who planted before the bonus system came into operation, and the effect has been to greatly increase production before an assured market is found for the produce; and now further assistance is urgently demanded.

The proposal to give a bonus of 3d. per gallon on wine exported would benefit the large shippers, but be of very little good to the small grower.

What is wanted here—and no doubt with you, in a less degree—is an outlet for inferior wines. It will not pay to send them to England, and they are not saleable in the Colonies. Our working-men would not look at the poor wines used by the same class in wine-growing countries. A bonus of 1s. 3d. per gallon proof on all brandy exported would do far more good than a bonus on wine.

Another help to your producers would be a differential excise duty on all brandy made in New South Wales, similar to what we have in South Australia, that is, 9s. on our manufacture, against 14s. on the imported. This would, in time, give an opening for the colonial-made brandy to successfully compete with the imported.

Greater facilities should also be given to the makers of sweet wines to obtain spirit made in the Colony, free of duty, for fortifying—a privilege we have always had in South Australia, on payment of a fee of 6d. per gallon proof,—which is levied to pay for the attendance of officers to see the spirit used.

The distillation laws of South Australia have always been fairly liberal and carried out in a way to give as little trouble to the winemaker as possible. We pay £50 per annum for a distiller's license which enables the distiller to use any material and to sell in any quantity. A winemaker's distillery license costs £5 per annum, and under it a winemaker can distil his own lees and inferior wine, or can take his neighbour's, but he must use it fortifying his wine, and if he has any surplus he can sell it in one lot once a year, which very few ever require to do; they can also purchase spirit and use for fortifying.

A great help to growers, both large and small ones, would be a thoroughly competent man to visit the vineyards and cellars and advise on the best methods of winemaking, and point out any defects in practice, and there is plenty of room for the latter. Great carelessness in the management of casks and vats, want of cleanliness generally, allowing grape-skins to lie about the cellars, and overheating in fermentation are the causes of much bad wine being made, and until these defects are remedied merchants will not risk the chances of buying the wines of small growers, because one lot of badly made wine, the fault of which may not be detected at the time, may injure a large blend later on and cause great loss to the merchant.

C. Lindeman, Esq.

THOS. HARDY.

Copy of Letter to The Hon. the Premier, April, 1896.

The Hon. G. H. Reid,—As you are aware I was appointed to the Board for Exports solely in the interest of the wine industry, and in order to help the Board in its deliberations on this question, I visited the neighbouring colonies—Victoria and South Australia. In both these colonies they have far outstripped us in the area they have under vines. There is no doubt they have over-produced for their local consumption, and have to find an outlet for their surplus in some shape, and it is my opinion that the greater portion of their wines will have to be turned into brandy and exported or consumed in that form, as, certainly, thousands of gallons are not fit to be sold as wine, and to endeavour to make a trade in London with immature, badly-fermented stuff, that in many cases has been shipped, will only give Australian wine an unenviable reputation; but if these inferior wines were converted into grape spirit, and shipped under Government guarantee as being pure, unsophisticated natural grape brandy, a large export trade would result, and spirit when once made does not deteriorate. Wine is different; it may be chemically tested in Australia, and pass as pure wine, but if not properly fermented and matured, may, *en route*, undergo a secondary fermentation, and arrive at its destination in bad condition and quite unsaleable. I don't mean for one minute to say that there is not a trade to be done in England if good, well-matured, and well-fermented wine were sent; but I am afraid the greater bulk that has been shipped has been immature, and already Australia, from what I can learn, has a name for crude, coarse, and consequently cheap wines. It will be an uphill fight to get Australian wine introduced into the upper circles, even if the very best wines were now sent.

Whenever the Government have attempted to directly assist the wine industry by the bonus system, it has, I think, resulted in complete failure. The Victorian Government some time back offered £2 per acre bonus for all new vineyards planted. The consequence was inexperienced people rushed in blindfold and planted indiscriminately, both as to the quality of the vine and soil, the result being over-production of inferior wine, quite unsaleable in the local or home markets. The Victorian Government now propose to give 3d. per gallon bonus for all wines exported. This, again, can lead to no good, as it will be an incentive (unless under very stringent supervision) for people to ship young, inferior wines, in order to get the bonus. It would be far better to offer a bonus on all brandy exported, as pure, natural, grape brandy would improve by age, whereas a wine badly fermented would only deteriorate.

There is no doubt that the wine industry in this colony can be materially assisted by having our Distillation Act amended, and allowing a concession in the excise on all pure spirit made in the colony. People would at once go in for planting more vines, especially in the prolific soils of the Hunter and northern rivers. They are deterred from doing so now, as in wet years their crops are utterly lost or else sold to such men as lately appeared in the police court for selling

selling poison under the name of Australian wine, and rightly fined £30, although that sum was, in my opinion, quite inadequate to the enormity of the offence. I say emphatically that anyone convicted of selling decoctions under the name of Australian wine should have their whole stock confiscated and be debarred from ever selling wines again.

We should watch with jealous care, at all events, the purity of Australian wine. It will be seen by the analysis that this so-called wine contained 25 per cent. of grape juice, the balance being made up with white spirit and chemicals. How far better if the grower could depend upon getting a fair price for his inferior wines from a good distillery company. It would not pay to convert these inferior wines into brandy under the present Act, as it has to compete on even terms with the poisons that are now introduced into the colony and sold under the name of spirit. Our capitalists will not go in for large distilleries, depending solely on the export trade; but, had we a moderate excise, we could in a few years' time supply a portion of our own demand, and if a surplus were created, we could assuredly find an outside market for it. I had a long conversation with a Mr. Muir this week. He is Commissioner-General for Canada, Montreal Exposition, and he tells me that the consumption of Australian brandy in Canada is increasing at a marvellous rate, and says he would be quite content to leave everything else alone if he could get an agency for good Australian brandy, he being so satisfied of its future. Herewith I beg to hand you his letter upon the subject.

The convictions in the last year for selling poisons under the name of spirits have been numerous, and respectable publicans have sworn most positively that these poisons were supplied to them by their wine and spirit merchants. Someone, at all events, must import these decoctions designated as poisons by our Government Analytical Chemist, and valued by him at, I think, 2d. per bottle. Had we a moderate excise there would be no incentive for the merchant to import these decoctions, but by giving a fair price for good, pure local spirit, he could afford to sell to the publican at the same price that he now sells poisons. I feel sure, were our Distillation Act altered to the same as they have in South Australia, namely, 9s. excise, it would be the means of settling hundreds of families on the land. People are constantly coming and writing to me about planting vineyards, and I tell them that under present circumstances I would not advise my worst enemy to plant vines; but, could we get our Distillation Act altered, I myself would plant all the suitable soil at Cawarra with vines, and I am sure others would follow suit. I feel certain that the area under vines would double in the next three to five years, and, were our Agricultural Department to appoint an expert simultaneously with the alteration of the Distilleries Act, who could advise as to the soils and kind of vines most suitable, we would evade the errors made both in South Australia and Victoria, viz., that of planting inferior varieties of vines and choosing unsuitable soils. It is interesting to see how the Act has worked in Victoria and South Australia. The former colony in 1895 produced 306,000 gallons of spirit, South Australia 147,093, against New South Wales' 6,000.

Trusting you will give this matter your earnest consideration, as I feel confident that it will be the means of stimulating a most important industry.—I am, yours faithfully,

March 2nd, 1896.

C. F. LINDEMAN.

P.S.—In 1895, 1,017,749 gallons of spirits were imported into New South Wales.

Exchange Cellars, Sydney, February 12, 1896.

Mr. H. J. Lindeman, Sydney, N.S.W.,—

Dear Sir,—

I take pleasure in stating that the sale of Australian brandy in Canada is very large, and is increasing, especially in the provinces of Quebec, Ontario, and Nova-Scotia.

Australian brandy has only been introduced into Canada some eighteen months, and has become a very popular drink,—Yours truly,

(Signed) J. SKEE-MUIR,

Commissioner-General for Canada, Montreal Exposition, 1896.

In view of the above facts, and with the concurrence of all those interested, I beg to propose that this Board pass a resolution asking the Government to reduce the excise on spirit made from grapes grown in the Colony of New South Wales from 14s. to 9s. per proof gallon, feeling sure that were this concession made that many acres would be planted with vines that are now lying idle, which would give employment to many families. Farmers and vinegrowers will not, under the present law, plant or increase their vineyards, as in bad years their labours are entirely lost as they cannot profitably convert their grape-juice or waste products into brandy and compete with the chemical compounds now introduced into the Colony under the name of German Spirit, which is sold at about 2s. per gallon in bond. If this concession were made, I feel sure that the vine-growing industry would receive an impetus unknown in the history of the Colony, the health of the people would benefit, and there would not be such an incentive for illicit distillation, and in time the vineyards would so increase that sufficient good wine would be grown to do a large export trade, whereas at present there is barely sufficient to supply our own local market.

IX.—TIMBER.

EXPORT OF NEW SOUTH WALES TIMBERS.

(By the Hon. A. Kethel, M.L.C.)

To the Board for Exports,—

At the request of the Board, the Secretary summoned a conference of the Saw-millers and Timber Merchants of Sydney and the coastal districts of the Colony, to consider in what manner the Board could best promote and encourage the export of our indigenous timbers, and assist those engaged in the production and distribution of the same.

The Conference met at the Board-room of the Colonial Secretary's office on 3rd January, 1896, and was attended by representatives from nineteen firms engaged in the saw-milling business, and also by Mr. De Coque, timber surveyor and expert to the Department of Works. The Vice-Chairman and Secretary to the Board for Exports were also in attendance.

The proceedings were commenced by the reading of a paper on the "Export of Hardwood Timbers of New South Wales" by Mr. De Coque.

The Conference then proceeded to discuss the various matters relating to the trade, and recorded their opinions thereon by unanimously passing the following resolutions:—

1. That this Conference respectfully recommends the Honorable the Premier and Colonial Treasurer to appoint an expert officer to inspect, classify, grade, and, if desired, measure all timbers intended for export; such officer to be selected by the Board for Exports.
2. This Conference suggests that the Board for Exports shall, when requested, use all possible means to obtain cheap and convenient freight for the export of timber.
3. This Conference recommends that the Board for Exports should endeavour to get an expert appointed in London to promote the interests of the export trade in native timbers and their extended use in the manufacturing industries of Great Britain.
4. That the Government be recommended to establish a small depôt in London for the exhibition of New South Wales timbers and extending a greater knowledge of their various qualities.

These resolutions were formally presented to the Board by the Chairman of the Conference, Mr. W. Langley, attended by Messrs. Clarke and Scott, two members of the Conference. The Chairman in presenting the report and resolutions, made, *inter alia*, the following remarks:—"I feel certain that if your Board can put into force the resolutions presented by us to-day, the expenditure incurred in doing so will so much facilitate our timbers being placed on the markets of the world that you will never regret having recommended the same."

The Conference were unanimous in declaring their willingness to pay a small fee for the services of the timber expert, when required, for inspecting, grading, and branding. On receiving this report the Board considered that it would be desirable to ascertain what was being done in the other colonies to encourage and assist in the export of hardwoods before making

making any recommendations to the Government in the matter, and accordingly instructed me, with the approval of the Honorable the Premier, to proceed to Victoria and Tasmania and inquire into the conditions under which the export timber trade was being conducted in those colonies.

In accordance with that resolution I left Sydney on February 5th, 1896, for Melbourne, and from thence, *via* Launceston, to Hobart, returning after a few days by the same route to Melbourne. I made extensive inquiries in both colonies, as well in the several Government departments as among the saw-millers and local traders and exporters in Hobart and Melbourne, especially as to the amount and value of the assistance given by the Governments to those engaged in the export timber trade, and I found that the Government of Tasmania, some time since, recognising the necessity for encouraging the saw-millers in the export of their timbers to Europe, decided to assist them by guaranteeing to the ship due payment of the freight; they also made the shippers a cash advance on account of the cargo, repayment of same to be a first charge on the proceeds of the sale of timber. This was done, the timber was landed in London and sold under Government supervision, freight and advances reimbursed, and the net balance of proceeds handed to the shippers, the whole transaction being satisfactory and profitable to all concerned. "All the timber was inspected, graded, and branded previous to shipment."

In course of time another Government came into power. The new Ministry reversed the policy of their predecessors, withdrew all promise of support to the timber trade, and declined to assist producers in any way whatever.

The system now in existence in Hobart is this: the Government appoint an expert at £240 per annum to inspect, grade, and brand all timber entered for export, but his salary is paid by the associated timber merchants of Hobart.

The timber merchants of Tasmania were unanimous in the opinion that the presence of a timber expert in London would greatly promote and extend the use of Australian timbers in Great Britain, and that all timber intended for shipment to Europe should be inspected prior to shipment and receive the Government brand.

The Melbourne timber people also concurred in this opinion.

Victoria has a very limited quantity of hardwood suitable for export; the small parcels hitherto shipped have not been sufficient to justify the appointment of an inspector, but have been inspected and branded by the Conservator of Forests, who issues a certificate in triplicate.

In view of these facts and the information gathered by me, and of the result of my own experience, I recommend the Board to comply with the resolutions of the Timber Merchants' Conference of January, 1896, and that the Government be requested to appoint an expert in Australian timbers to inspect, measure, brand, and certify to the description, size, and quality of all indigenous timbers intended for export, at a salary of not less than £200 per annum, and that a scale of fees be charged to the shipper of said timber for the services of such expert.

It is anticipated that during the present year of 1896 there will be not less than 4,000,000 feet of timber exported from New South Wales to Europe, and a charge of 1s. per 1,000 feet for inspection and branding would pay the salary of an expert inspector, so that the Government would not be anything out of pocket.

As to the 2nd resolution of the Conference, *re* the matter of freight, the Board, with the approval of the Government, will certainly be ready and willing to render all possible assistance whenever requested to do so.

With regard to the 3rd and 4th resolutions of the Conference, recommending the appointment of a timber expert agent in London to push the use of our timbers in the industries of Britain, and supply all needful information concerning the same; and the establishment of a sample depôt—such arrangement would, in my opinion, be productive of excellent results.

Every mail brings letters of inquiry from Europe or America, asking for information as to the nature, qualities, and description of our native timbers, and the uses for which they are suitable. The establishment of a depôt in London in charge of an intelligent man, thoroughly conversant with our native timbers, would facilitate the supply of all information required, and where necessary provide for the distribution of samples of the different timbers, for the purpose of giving practical tests of their suitability for many of the manufacturing industries of Europe.

As this would be a tentative or experimental proceeding, the appointment may be made for one year; the value of the experiment could then be judged by its results.

After careful consideration of the whole matter I would ask the Board for Exports to submit these proposals to the ministerial head of the Department of Agriculture, recommending the carrying into effect the recommendations of the Saw-millers' Conference.

A. KETHEL.

X.—MEAT.

MEAT EXPORT TRADE.

(By John Wildridge.)

A FULL report on the export of meats would entail more time than I could spare, or you afford for consideration. I will, therefore, with your permission, only deal with the matter in the way of most interest to us as an Export Board, in anticipation of recommendations from the Conference of Meat Exporters, and after which we may be able to advise the Government how the industry could be best assisted. At present we have to deal with the article frozen and preserved in tins, but hope that ere long the export of chilled meat will be prominently to the front. Since the first trial shipment of frozen mutton left Sydney, up to the end of 1895, the progress has been indifferent as compared with New Zealand.

The yearly totals of frozen meat exported from the Colony of New South Wales during the last seven years being as follows, taking weight per carcase of mutton at 45 lb. :—

	cwt.	Sheep.		cwt.	Sheep.
1889	37,868	=	94,249	1893.....	220,584 = 549,009
1890	72,304	=	179,956	1894.....	329,404 = 844,738
1891	105,013	=	261,365	1895*	455,674 = 1,134,122
1892	223,074	=	555,206		

* Also, 152,144 cwt. beef.

This last year a marked improvement has taken place, and in comparison with the years before, the results are such that if we can only add a small margin of profit to the grower, New South Wales should at an early date head the export countries for mutton, and there is no reason why beef should not also maintain a good place.

Without dealing with the quality now exported, there are other important points which can well be discussed as bearing on the export trade :—

- 1st. Competition with other countries.
- 2nd. Freight charges and regular shipments.
- 3rd. Cold storage in London or elsewhere, and distribution.

Our greatest competitor, so far as flocks are concerned, is the Argentine Republic with 81,500,000 sheep, as against 57,000,000 in this Colony; and, as showing how the exporters from that country are awakening to the possibilities of more serious competition, we have lately had information that they will reduce their sale prices and open retail establishments all over Great Britain. This we may fully expect, and with our mutton selling, as at present, for 2½d. per lb. in London, under existing charges it would be impossible for us to compete against them successfully; and the freezing establishments now in existence here would find they have works but no mutton to freeze, as graziers would have more profit out of boiling down for tallow only. The freezing companies have already reduced their charges from ¾d. to ½d., and lately have instituted a further reduction by including the chilling works charges in their ¾d. With an increased business they may be able to reduce another ¼d., or ½d. per lb. for receiving, freezing, bagging, and delivery—only double the London charges for receiving and storing for four weeks. When we consider that freezing costs three times as much as storing, you will readily recognise that operations here are economically carried on, requiring close supervision to leave a margin of profit. That other charges will have to be modified to meet the demand for reduced consolidated charges is apparent, the principal item being that of freight, both in railway haulage and steamer.

Railway

Railway haulage for a distance of 350 miles costs 202d., or slightly under ½d. per lb., and the average steamer freight is ¼d. per lb. Double our present export, and, like the freezing works, the Railway Commissioners should be able to lower their charges (say) an ¼d., and the steamers an ¼d., as, in the latter case, owners will not require to go seeking for cargoes. The saving of time, port dues, and coal would make up the difference in present rates.

London charges are composed of—1st. Storage charges average ¾d. 2nd. Agency charges average ½d. full, or total, 28.

The first appears excessive as compared with our freezing rates here for the accommodation provided, as the stores are frequently blocked and the frozen meat has to be sacrificed. To meet this I would suggest that the Government of this Colony erect cold storage premises in London of a capacity equal to holding 500,000 carcasses of mutton. The cost of such a work would be about £120,000, including buildings, machinery, and land, and the working expenses, including interest on capital and depreciation, would be about £23,600 per annum. At a charge of one-half present London rates, or ¼d. per lb., on an export of 3,000,000 sheep per annum, the Government would have a revenue of £35,000. (See calculations attached.)

We cannot very well deal with the agencies for the selling of the meat, but with a combination on the part of exporters, these charges should without doubt also be considerably reduced. On the basis of an export of 3,000,000 sheep per annum charges should be:

1st. Killing, Chilling, Freezing, and delivery	312
2nd. Railway haulage	125
3rd. Freight	687
4th. Insurance	070
5th. Storage	032
6th. Agency sales	125
7th. Cost of mutton (for merinos)	750
	2101
For cross-breds 50 per cent. more, or	2476

This would place us in a position to compete against any other countries. The foregoing would be about the lowest price obtainable in London, and would ensure a small profit to all concerned. With higher prices it is possible that the several contracting parties should also receive a *pro rata* benefit. My suggestions would be, therefore, as follows:—

- 1st. Assist the export from this Colony to an output of not less than 3,000,000 sheep per annum, or the equivalent, including beef. Arrange for grading and supervision of shipments.
- 2nd. Reduction of railway haulage and freezing charges.
- 3rd. Arrange shipping to sail from this port at regular intervals, *via* Australian ports only.
- 4th. Erection of cold storage in London.

In the foregoing suggestions there are no insuperable difficulties, and indeed if we do not adopt some such ideas, we will find other colonies ahead of us, notably Queensland, as my firm is in possession of information that the latter intends proceeding somewhat on the foregoing lines.

It may not be out of place to remark that the system of refrigeration on board steamers is not all which is required. Allowing that we take every care in the manipulation of the dead meat before being put on board ship, the machines on the steamers are not all suitable for other requirements. The principle of the compressed air machines being such as to require a large amount of hydro-carbon oils being injected into the compressing cylinders to keep them working smoothly, this oil is volatilised and passed over into the holds and distributed with the cold air: frozen meat will not suffer much on this account; but for butter, cheese, or fruit the subject is one which in a contract made by the Government should receive careful consideration. With the view of inducing shipowners and those likely to cater for the carrying of our produce, regulations should be adopted which would require steamers to be fitted with refrigerating machinery capable of dealing satisfactorily with the several products to be carried.

Chilled meat in place of frozen will shortly without doubt prove a step in advance of the frozen by enhancing values in London, and will compete directly with the American. In this direction my firm has been making a series of experiments in conjunction with one of our large shippers, at considerable expense, how long meat will actually keep in good condition, with the result that we have sent chilled meat from here to Queensland carried as ordinary goods in the guard's van during the present exceptional hot weather after fifty-five days hanging, and then eaten with relish, being both sound and sweet. This would be a sufficient assurance that it could also be delivered on the London market, but as it will take more space on board ship, more care in transit, and special arrangements for automatically regulating the temperature not to vary more than 1 degree during the whole voyage, the cost of a trial shipment by a single company would be considerable, but, as it would be to the benefit of all, probably the Government might consider such a shipment as a national one, and be at the expense of same, excluding cost of meat. I append copy of letter received from Mr. R. Ferguson, expert surveyor to Queensland Government, in reference to chilled meat.

To fully realise all the profits which should accrue in the exportation of meats, greater enterprise, and a thorough knowledge of every means which can be adopted in the preserving of meats by tinning, and the treatment of by-products, &c., as is carried out in America, would prove of immense value. This comprehensive information would take months of close study, close inspection of the several processes to be undergone, and a thorough knowledge of the many mechanical applications used in reducing to healthful and profitable products, what are to us at present sanitary nuisances, and no better opportunity could offer for the Government to assist in this development than in connection with any proposed new abattoirs. Although we have already in existence the following inland chilling works:—Bourke, Nyngan, Dubbo, Forbes, Carrathool, Narrandera, Young, Narrabri, Gunnedah, Werris Creek, and Tenterfield, also Deniliquin and Aberdeen Freezing Works—a local slaughtering establishment we may deem as indispensable, and where, as already mentioned, a complete plant to deal with all by-products would not only prove a profitable investment, but could also be the ensample necessary for the inland works, which at present cannot afford to experiment.

In conclusion, I would add, the foregoing is only a brief summary of this very important business, one in which my firm has taken a very deep interest, and hope to see it second only to that of wool, while the two scientifically combined would materially enhance our land values and open resources in which our surplus labour could be profitably employed.

Yours obediently,

JOHN WILDRIDGE.

Messrs. J. Wildridge and Sinclair, Consulting Engineers, Sydney,—Brisbane, 30th December, 1895.

Dear Sirs,

The piece of chilled meat kindly forwarded to me by mail came to hand on the night of the 23rd instant, in splendid condition, and was of prime quality when eaten at my table on Christmas Day, the marbled undercut being generally appreciated.

I have been agreeably surprised at the sound condition of the meat upon arrival at Brisbane, temperature and weather being considered, but more so on its keeping sound after being cooked up to date, as I had some of it for breakfast this morning, enjoying it very much.

I thank you very sincerely for sending me this Christmas treat, as beyond the actual enjoyment of eating it, the test of carrying chilled meat for such a distance, exposed to atmospheric influences at this season of the year, is most interesting.

I am, yours sincerely,

(Signed)

ROBT. FERGUSON.

COST OF INSULATED CHAMBERS.

	£	s.	d.
Storing only may be taken at £100 per 1,000 sheep; add external walls and roof, £50—£150:— Say storage accommodation for 500,000 sheep would cost in this country.....	75,000	0	0
One triple expansion machine, each engine driving a double-acting ammonia compressor, and each compressor equal to making 20 tons of ice, would cost £7,000, and would maintain a freezing temperature storing 200,000 sheep. Two machines would practically work the above establishment, but one machine would be required as spare:—Three machines would therefore cost	21,000	0	0
Fitting up, including ducts and insulated walls.....	3,000	0	0
Two pumps for circulating water, at £1,000 each	2,000	0	0
Electric light and machinery.....	1,500	0	0
Elevators, conveyors, and lifts	2,500	0	0
Boilers, three in number, 300 I.H.P. each	1,500	0	0
Boiler erection and chimney	500	0	0
Feed-pumps and water-pipes.....	1,000	0	0
	<u>£108,000</u>	<u>0</u>	<u>0</u>
Allow 15 % less for erection in London	16,200	0	0
London cost.....	91,800	0	0
Allow for purchase or long lease of land	25,000	0	0
Total cost should, therefore, not exceed	<u>£116,800</u>	<u>0</u>	<u>0</u>
Interest and depreciation on buildings and plant per annum:—	£	s.	d.
First charge on cost, 3 % interest on £116,800	3,504	0	0
Depreciation, 7½ % „ 91,800	6,883	0	0
Renewals and repairs, 2½ % „ 91,800	2,243	0	0
Insurance, 1 % „ 91,800	918	0	0
Rates, say 2 % „ 91,800	1,836	0	0
	<u>£15,384</u>	<u>0</u>	<u>0</u>
Working expenses, at per month:—	£	s.	d.
1 Manager	50	0	0
1 Assistant	25	0	0
6 Clerks	36	0	0
1 Chief Engineer	20	0	0
1 2nd „	12	0	0
1 3rd „	8	0	0
1 Electrician	8	0	0
6 Firemen	30	0	0
6 Greasers	30	0	0
50 Labourers (say).....	200	0	0
	<u>£419</u>	<u>0</u>	<u>0</u>
Coal, 10 tons per day	225	0	0
Engine stores	20	0	0
Other stores, water, &c.....	20	0	0
	<u>£265</u>	<u>0</u>	<u>0</u>
			Per Ann.
			£419 0 0 = £5,028 0 0
			<u>£3,180 0 0</u>
			8,208 0 0
			<u>£23,592 0 0</u>
Receive 3,000,000 sheep per annum: average weight, 45 lb. = 135,000,000 lb., at 1/10d. per lb.....	<u>£35,156</u>	<u>5</u>	<u>0</u>

(See also folio 28.)

XI.—REPORT SENT IN ANSWER TO AN INQUIRY FROM THE HON. THE SECRETARY OF STATE FOR THE COLONIES, 1896.

NEGLECTED EXPORTS.

SECRETARY'S REPORT.

WITH reference to a communication from the Hon. the Agent-General touching the possibilities of extended trade between the colonies and the United Kingdom, I have the honor to submit the following particulars, which may be of some use in determining the nature of despatch necessary to cover returns of our leading products.

I have confined my remarks to general terms, as any necessary statistics can be submitted in the returns called for.

Some of the principal products which this Colony can now or will in the immediate future be able to produce, and which have not yet found sufficiently satisfactory markets in the United Kingdom, are the following:—

GROUP I.—Pastoral Products.

Wool.—In those it may be asserted that we have taken premier position as far as wool is concerned, and probably at the present stage any interference, even in the direction of improving the position of the industry in the United Kingdom, would be more likely to be resented than appreciated by the pastoralists, who certainly deserve credit for the earnest zeal which has overcome so many difficulties, and placed our wool trade in such an enviable position.

Pastoral By-products.—Wool production cannot, therefore, be classed among our neglected industries; but such by-products as hides, skins, bones, horns, hoofs, tallow, lard, &c., of which we are large exporters, might well repay some additional amount of attention being called to them.

GROUP II.—Dairy Products.

Although we have already had a fair amount of success in placing our dairy produce on the markets of the United Kingdom, much remains to be done to popularise them, especially in the provinces. Up to the present the London market has almost monopolised our output, and although a fair market has always been found there, the necessity of getting into closer touch with the multitude of consumers in such centres as Manchester, Glasgow, Liverpool, &c., is every day more apparent. That we are destined to take a large part in this class of trade seems inevitable, and it is considered necessary to make some decided move during the coming season, so as to keep well to the front in securing a share of the markets.

Butter.—Our butter at present compares favourably with that of Denmark, and the rapid adoption of the latest and most approved appliances, together with the excellence of our stocks and pastures, and the fact that our flush season meets the scarce supply of winter in Britain, fully justify active measures being taken to secure a premier position throughout the United Kingdom.

Cheese.—Of cheese we have exported but little, although there is a prospect of greatly increased supplies soon, especially as the scientific methods of the present day are gradually replacing the admittedly indifferent systems of the past.

Condensed Milk.—Several schemes for utilising a portion of our skimmed milk by condensation are being tried, and there is some hope that we will soon be able to supply a superior article of food from this source.

GROUP

GROUP III.—Meat.

The trade in this product is but in its vigorous infancy, although for years past capital and energy have gained for us a foothold in the markets of Britain. There is almost unlimited scope for the Colony's surplus supplies, notwithstanding the competition of America, North and South, and other nations.

One of the essentials of success lies in our meat being fairly represented on the market, and this, it is to be feared, is not always done. It is an undoubted fact that many interested butchers are in the habit of selling our primest meats as native reared, and ticketing only the culls as "New South Wales," or "Australian," much to the prejudice of our suppliers. Canada and America have already gone directly into the British market, and it is quite evident that we must adopt similar means of selling our best stocks if we wish to avoid having our name discredited with the consumers.

Live Cattle.—Although our supplies of horned cattle are considerably below those of Queensland, we have still a substantial margin to export, and although experiments in shipping cattle alive must be admitted a partial failure, so far as it has gone, we should have no difficulty in finding ready sale for larger quantities of beef, chilled or frozen, than we are at present sending.

Beef.—Any action, therefore, which would place fairly before the consumers the excellent quality of our beef, must have a decided effect in increasing this important trade.

Mutton.—In mutton we have made substantial progress, but there is scope for large improvement, especially in the direction of providing efficient inspection of cargoes at port of discharge and supervision of the methods of handling, care during transit, and other matters which may affect the quality or appearance of the carcasses.

The complaint of misrepresenting our mutton as Scotch, Welsh, &c., is frequent, and prevents the consumer appreciating the best qualities of our meat. This, in justice to the Colony, should be stopped, even if it can only be done by branding the meat before shipment or coming on the market as retailers.

Pork, Bacon, &c.—Very little has been attempted in the export of pork, either fresh or as hams and bacon, but with the rapidly increasing number of our dairy herds and the large quantities of milk, &c., available for pig feed, besides the cheapness of other classes of food and the suitability of our climate, there must soon be a surplus for other markets. Meantime we consume more than we produce.

Preserved Meats, Soups, &c.—In the packing and preparation of preserved meats, soups, &c., a considerable amount of intelligent energy has of late been displayed, and there can be no doubt that, with a proper system of placing these before the consumers, a large share of business would come to the Colony which at present, on account of inadequate representation, goes elsewhere.

The quality of these meats, soups, and extracts is quite up to the highest standard of excellence, and simply needs to be made better known; much good to the Colony would result.

GROUP IV.—Small Goods.

Poultry, Rabbits, Game, Eggs, Fish, &c.—These, which may be classed generally as "small goods," have, up to the present, hardly passed the experimental stage of exporting, but an intelligent amount of interest is now being drawn to them, with the probable result that in future seasons we will become large exporters. At this stage it is unnecessary to particularise these products, but there is no doubt that an active campaign among British consumers would soon lead to extensive arrangements being made for shipments. The success of the adjoining colonies will no doubt be a further incentive to our producers.

GROUP V.—Cereals, &c.

As yet this Colony has not made any figure as an exporter of grain, and the production of cereal crops has been subordinated to the staple product, wool. There are evidences, however, that agriculture will in the near future, when closer settlement and increasing population warrant its extension, occupy a large place in the economy of the Colony, and become a feature to be reckoned with in our list of exports.

Wheat.—In wheat it is probable that next season will see us supplying all our own requirements, and our surplus then must abide by the natural law of trade and follow the fluctuations of the world's market—Mark Lane. We have millions of acres of magnificent wheat lands, which have in the past supported an average of about half a sheep per acre, but which are now found to be capable of producing an average of 20 to 25 bushels of wheat.

That they are destined to this class of cultivation ultimately cannot be doubted, and arrangements should not be delayed to enable us to take fullest advantage of the European market when the time comes, especially as our staple grain is of the highest possible grade as regards the milling and baking qualities.

Barley.—Barley for malting stands next in importance as a possible source of export trade, and from the excellence of our samples, I anticipate a very large business in this cereal as soon as British brewers turn their attention in our direction.

Other Cereals.—Oats, peas, beans, maize, &c., have not up to the present occupied a large share of our attention, but may in future form a part of our available exports.

GROUP VI.—Fruits.

Taking into consideration the variety of soils and climates of this Colony adapted to the cultivation of fruits ranging from semi-tropical to low temperature classes, it is important that the possibilities of our fruit trade should be prominently brought before the British consumers. So far we have but experimented in exports, but from the acreage of new orchards, &c., just coming into bearing, we must soon find markets for our surplusage.

Citrus Fruits.—Citrus fruits can be grown throughout a wide range of country; therefore we should be able to supply extensive quantities of oranges, lemons, citrons, &c., of a very high quality.

Other Fruits.—Peaches, apricots, pears, apples, and a great variety of other fruits can be grown to perfection, and scientific and skilful improvements in cultivation, &c., promise an early and large supply.

Preserved Fruits.—Preserving and canning are being entered into by several enterprising firms, and we anticipate that, with the double advantages of producing our own sugar, and being so favoured in climate and soil for the growth of a superior quality of fruit, a large export business in these is only the question of a year or two.

Dried Fruits.—For reasons given above, dried fruits must also soon form a large source of export business.

GROUP VII.—Metals and Minerals.

It is only necessary to mention the noble metals, with copper, lead, and tin, as all these are already fairly before the markets of the world, but for the development of trade in any of the undermentioned, much remains to be done in encouraging the attention of the British public.

Iron.—As has been often pointed out, iron must ultimately be produced from its ores in immense quantities, all the conditions, such as the proximity of the iron deposits to unlimited supplies of lime, coal, manganese, wolfram, &c., pointing to profitable returns as soon as the conditions of population and the labour market warrant the investment of capital.

Other Metals, &c.—Then we have extensive deposits of mercury, titanium, molybdenum, zinc, cobalt, chrome, sulphur, antimony, arsenic, bismuth, graphite, lignite, anthracite, &c., almost entirely undeveloped.

Coal.—Coal is the most important of our earthy minerals, but this market is already being exploited with considerable ability, although the unfortunate friction between labour and what is represented as "capital" has led to our losing some important outlets for our supplies. We have still, however, a fair share of markets in the United Kingdom dependencies and other nations.

Diamonds.—Other Gems.—Gems of the corundum and crystalline series occur in various parts of the Colony, and the development of mining for these may soon lead to a considerable business with British markets, especially in our diamonds, which are said to be equal in colour and lustre to the best Brazilian gems. Rubies, emeralds, and opals are the other more important gems found in the Colony, and but little has been done towards developing these sources of wealth.

GROUP VIII.—Wines and Brandies.

Wines.—Considering the possibilities of viticulture in this Colony, and the magnitude of the demand for these throughout the world, the trade in wines and brandy is likely to assume a most important position in our list of exports. Attention has already been drawn to the superior quality of our best wines, which have met with the appreciation of connoisseurs of European reputation. There is sufficient demand already for our best wines to warrant the investment of more capital in wine-growing and manufacture, with the prospect of an assured market.

Brandy.

Brandy.—Brandy of excellent quality has been made in the Colony, and the increasing demand is the best evidence that we are on sound ground in increasing our supply.

Some slight modification of our Distillation Act will enable distillers to operate on a large scale, and meantime the British public should be kept well advised of the superior character of our brandy when compared with the chemically-disguised white spirit which is often foisted on them by unscrupulous traders.

Both in wines and brandies it is always to be feared that our interests may be sacrificed to those of known wine-producing countries, by our best samples being credited to them, and the inferior only sold as Australian; great care will require to be exercised in preventing such being done.

GROUP IX.—*Timbers.*

Timbers.—Although for many years the high quality and durability of our native hardwoods have been well known to experts in timber, we have never more than dabbled with the European markets, chiefly for want of enterprise, and because the value of our timbers has never been properly represented to the general public.

At the present juncture, when the wood-paving of streets is beginning to assume national importance in Great Britain, it is imperative that the superiority of our timber for such purposes should be conspicuously presented to the proper authorities, so that a fair share of the trade can be secured by New South Wales.

It is of the utmost importance also, that demonstration be made of the other uses to which our hardwoods can be put, such as railway-sleepers, manufacture of rolling stock, waggon-building, wheelwrights' work, and, for our ornamental timbers, cabinet-making, decorative panelling, &c., &c.

This industry may fairly claim to be one of the most neglected of any, and no time should be lost in presenting our claims and pressing our goods on the markets of the United Kingdom. Such measures, therefore, as may be necessary to fully exploit the markets of the United Kingdom are urgent and imperative necessities.

Tobacco.

Tobacco may be also mentioned as a probable source of trade, our climatic conditions favouring the growth of nearly all varieties. Some time will probably elapse before we can produce sufficient quantities of suitable quality, but every year will improve our prospects, and no element of success seems wanting beyond the necessary skill, which is being rapidly attained.

From the foregoing list it will be noticed that only products which can be easily prepared for export, and which have been neglected in the past, are taken into consideration. Enough has probably been said to emphasise the necessity of closer relations between this Colony and the parent nation, equally in the interests of both. Nothing is wanting but application of the business acumen and readiness to invest capital in profitable enterprises, so characteristic of our race, to make the next decade a season of such prosperity for New South Wales as the most sanguine could hope for.

I have, &c.,

JAS. STEPHENSON,
Secretary, Board for Exports.

Sydney, June 26th, 1896.

XII.—OPINIONS OF VISITORS.

EXPORT OF PRODUCE.

Jas. Stephenson, Secretary, Board for Exports.

VISIT OF CO-OPERATIVE DELEGATES.

ON the arrival of these gentlemen—Messrs. Clay, Stoker, and Jones—representing the Co-operative Wholesale Society of England, arrangements were made by the Board for Exports, under instructions from the Honorable the Premier, to show them round the various producing districts and other places likely to interest them from a business point of view.

The general result of the visit may be described as highly satisfactory, and likely to lead to very considerable business relations between their society and our producers.

Their mission being only one of inquiry, there was no actual business done during the tour; but several arrangements were made for sample consignments of butter, tallow, leather, honey, &c., and they spoke with all confidence of the probability of much of the British supplies being in future drawn from these colonies.

It is unnecessary to enumerate all the factories, &c., visited, as the same details would apply to many examples, but it is well to remark that no important interest was overlooked in making the arrangements, which were carried out without a hitch.

Sydney and suburbs naturally formed the first part of the programme, and several butter factories in the city were visited on the first day, at all of which the modern character of appliances, cleanliness of manipulation, and quality of output were favourably commented on by the visitors.

The Botany tanneries and boiling-down establishments were next visited, where samples of leather and tallow were arranged for with several of the producers. The bulk of the leather generally was said to be inferior in quality and finish to average British samples, but large quantities of our 18–20-lb. sides were likely to be required for sole-leather.

In tallow a very extensive market was expected for soap-making, which was declared to be the future principal outlet for our class of tallow, candle-making consuming less year by year.

The works of the Sydney Meat Preserving Company were visited, and called forth highly favourable remarks. In this direction a strong opinion was expressed as to probable large and satisfactory business, and Mr. Alban Gee, the manager, was complimented in high terms on his perfect system of sanitary arrangements.

Hawkesbury Agricultural College and the Kurrajong were next visited, and the delegates highly approved of the work being carried out by the students under the tuition of Mr. Principal Thompson. The weather, unfortunately, was inclement, and the orangeries were seen under adverse conditions, but a favourable opinion was expressed as to the probability of our attaining a share of British trade in fruits generally.

The delegates then left for Newcastle, where they were received by H. W. Lee, Esq., of the Board for Exports, and the local Chamber of Commerce. A quick run through Aberdeen, Singleton, and Maitland districts enabled them to form some idea of Upper Hunter valley, which was favourably spoken of as a producing centre.

An extended trip throughout the South Coast dairying districts followed, where the visitors were accompanied or met by the local M's.L.A. and all the principal producers. Throughout this visit the Honorable A. Kethel, M.L.C., Vice-Chairman of the Board for Exports, travelled with the party, and his extensive knowledge of the country proved of great service in making the trip a success.

The extreme hospitality of the farmers and others, and the sympathy with the objects of the Co-operative Society so generally expressed, were highly appreciated by the delegates, who, as they said themselves, were received more like ambassadors than plain business men.

Some of the samples of butter seen on this visit were as near perfection as might be, and the delegates spoke in no uncertain terms of the prospect of our very soon taking a still higher place in the British markets.

On the invitation of John See, Esq., M.L.A., manager of the North Coast S.S. Co., the visitors were taken through the North Coast Districts, including the Clarence, Richmond, and Tweed Rivers, Byron Bay, &c., and were heartily welcomed and entertained by the settlers. They afterwards made a tour through Queensland, and left, *via* Sydney, for New Zealand, on their homeward route.

In course of conversation with Mr. B. Jones, the London manager of the society, the following facts and opinions were elicited. Coming, as they do, from a responsible and authoritative source, these remarks should be laid to heart by our producers, and acted upon as far as possible:—

Butter.

Speaking generally, we are on the right lines, and may safely go on, taking care, however, to be content with nothing short of perfection in quality and manipulation.

Qualities

Qualities necessary.—Butter for export must possess the following qualities :—

1. Good, strong body, with under 10 per cent. moisture.
2. Good keeping quality.
3. Fragrant flavour.
4. Bright, uniform colour.
5. Should, when worked, carry not more than 2 per cent. salt and $\frac{1}{2}$ per cent. preservitas.

As to the time for shipping, our present season—from September onwards—suits the London market well; but in order to keep customers together we will probably in future require to have our butter on the market all the year round. This would involve storing on this side from season to season, but not necessarily at a loss, as home buyers will pay a good price to secure an article they are accustomed to. This, of course, would apply only to comparatively small quantities.

Mr. Jones is of opinion that cold storage is no drawback, if the butter be good to begin with, the only objection being the cost of storage—not a very heavy item.

Grading and Branding.—The delegates hold the strongest views on the necessity of establishing standard grades, and working up to the best. They also favour the adoption of more than one grade, and generally give their adherence to the following plan as formulated by the writer from personal experience and acquired information :—

Butter-making for Export.

“Institute a thorough system of inspection of all stock, dairies, factories, and means of conveyance, giving extended powers to the inspectors, to enable them to efficiently carry out their duties.

“Give assistance to producers in obtaining for them the cheapest and best means of transit.

“Offer the certificate of the Government to all producers of a good article, and carry out a rigid system of inspection to prevent any adulterated samples being exported, or inferior stuff being falsely represented in any way likely to cause injury to legitimate producers or merchants.

“Distinguish the various grades under the following headings :—

Brand.	
CHOICEST	To include the highest grades of creamery and factory butter; to be attached only after careful inspection of each separate shipment.
PRIME	To include all well-made and sound samples of creamery and factory butter fit for table use, and calculated to arrive in prime condition.
No brand	Second-class factory, dairy, separator, and mixed butters, fit for table, but not up to prime standard.
PASTRY	All butter calculated to reach market in a condition unfit for table use.
(Fire Brand.)	

“In case of any factory or supplier habitually failing to produce good butter, offer any advice or instruction required to remove the difficulty, charging only actual expenses in case of a visit of the expert being necessary.

“Institute a system of conferences from time to time in producing centres, and encourage the interchange of ideas among producers.

“Encourage the utilising of all offal, and urge the immense loss involved in allowing any waste.”

Packing.

Our present system of packing has “caught on” with the trade in Britain, and cannot be improved on, except that a slight taper might be given towards the bottom of the case inside (say, $\frac{1}{8}$ inch on all sides), so as to facilitate getting the butter out. This could be done without interfering with the symmetry of the case outwardly.

“Fishy” Flavour.

Questioned about this taint, which has been variously attributed to rank grasses, weeds in pasture, insufficient extraction of butter-milk, &c., Mr. Jones suggests that the inclusion of too new milk after calving (beestings), may have something to do with it, and endorses the general opinion that no milk from newly-calved cows should be allowed to be used, under heavy penalties. The notable presence of “fishiness” in butter about the opening of our flush season seems to favour this hypothesis, and I would strongly recommend exhaustive experiments being made to prove or disprove it. Nothing should be left undone to keep up the character of our supplies.

Pasteurising.

This system of treatment being still in its infancy, Mr. Jones speaks with caution about it, although he admits that, if by the introduction of pure cultures of lactic-acid-forming bacteria, the results claimed can be uniformly obtained, a great point will have been gained.

Butter production generally.

One good result of the delegates’ visit has been to dispel the fear that we are on the way to over-production, and consequent stagnation. We are assured that no such stage is likely to be reached for the next twenty years. By closely following the best and most modern scientific methods, and keeping up the standard of quality, there is an almost unlimited market for us in the United Kingdom.

The district of the Colony which most impressed the visitors was that of the Richmond-Tweed. As Mr. Jones expressed it, “Other districts are good, but the Richmond-Tweed scrub lands are super-excellent.” He considers that even should sugar, maize, and potato growing equally cease to interest the Northern farmers, the butter-producing prospects are such as to warrant the utmost confidence in the future. Some improvement in stock is necessary, the cattle generally being hardly up to South Coast standard, but no doubt this will have attention as the area of grazing extends.

One other point which must be strongly insisted on is regularity of supply. In past seasons we have been in the habit of shipping spasmodically—500 tons one week and 27 the next. This must cease, and the market be regulated so that buyers at the other end can anticipate from week to week what our probable shipments will be. This can only be done by a combination of interests here, and the cold storage arrangements now being made by the Board for Exports will probably be found the best means of balancing our shipments so as to prevent undue surpluses and the corresponding succeeding dearth of supplies.

Cheese.

In this line the delegates only endorse the usual opinion of visitors, that we are not up to standard quality. The kind required for Britain is a mild, nutty-flavoured cheese, with slight acidity, and rich, meaty consistency. It must be so cured as to reach England before any pronounced strong flavour has been developed, as there is a growing liking for mild-flavoured, in place of the strong, rank cheese of the past.

At present rates, it is far better for our farmers to make butter, as the probable price our cheese would bring could not give equal results.

Bacon.

With our wealth of natural food, and the enormously increasing supply of skim-milk, we should soon be able to obtain a place in the market with hams and bacon, but a great deal of our feeding system must be unlearned, and a meat produced with a dense, white, firm fat. This, with our system of offal, maize, and pumpkin feeding, is simply impossible, and Mr. Jones thoroughly agrees with the opinion that until we use more peas, beans, barley, pollard, &c., and less maize in topping-up for the butcher, we will be able to compete only with the corn-fed American goods, which no one cares to eat if he can afford something better.

In shipping home the meat must be either sent as “green” bacon, packed in water-tight boxes, or as frozen pork, wrapped as we do mutton. Experiments might be made both ways, but it is no use sending the class of goods we produce at present, and the sooner we appreciate this fact the better.

The home people are prepared to pay a good price for a good article, but they insist on having just exactly what they want, and it is no use sending anything else.

Leather.

Leather.

Mr. Jones does not profess to speak from an expert acquaintance with this trade, but remarks that he hardly considers the quality of our leather equal to that of some other Colonial samples he has seen. It does not seem so firm and solid, and the general get up and appearance are perhaps not exactly so good.

Although the principal demand at present is for sole leather, there is no reason why we should not ultimately produce harness and upper leathers of good quality. Sides of not under 18 lb. will meet a fair market in Britain, but the quality and finish must be improved to suit the first-class trade.

The present method of branding the cattle on the best portion of the hide is one of the principal objections to our leather. This fault has before been strongly insisted on by our tanners and others, and should be remedied without delay.

Tallow.

The tallow trade is one which the Colony has got a firm hold of, and so long as we keep well ahead of scientific requirements, there is little fear from the competition of other nations.

Honey.

New South Wales honey may be expected to find a fair market in future among British consumers, provided it can be sent of satisfactory flavour. The quality is certainly capable of improvement, but the moderate price may encourage buyers of a certain class.

For export, honey should be packed in strong, new tins of 56 lb. each, two to a case. Thin or second-hand tins must on no account be used. It should be bulked and graded before packing, so as to secure uniformity. This is imperative if satisfactory business is to result. Weights, colour, and consistency must be maintained above suspicion, and all should be inspected and passed by a qualified expert before shipment.

Beef and Mutton.

The Society has not up to the present handled this trade, but the delegates, on their return, will report in such terms as will very likely lead to large business. In this, as in other lines, we must adopt a system of rigid inspection and properly grade all meat before shipment. Great care in handling should also be made a study, as the meat must be landed with the "bloom" on to successfully compete with that of other nations.

Mr. Jones, in conclusion, spoke again in the highest terms of the reception accorded the delegates by Government, public, and Press.

The visitors leave with a kindly feeling which, on their arrival at home, may be expected to bear fruit in the shape of largely increased trade with the mother country.

No better evidence of the growing importance of trade with the colonies can be found than the fact that business men in the United Kingdom are beginning to take an interest in our products, and are sending representatives out to inquire into our possibilities of trade.

The marked improvement in energy shown by our producers during the past few years, and the growing appreciation of our great capabilities of production, are encouraging features which point to rapid and satisfactory development of the Colony's resources in the near future.

XIII.—VISIT TO VICTORIA.

BOARD FOR EXPORTS.

SECRETARY'S REPORT.

Mr. Chairman and Gentlemen,

I have the honor to report that since last meeting of the Board I have visited the Colony of Victoria, and have there obtained certain information, which may be of service to the Hon. the Premier and this Board in their future action.

Proceeding hence on the 3rd inst., I was met in Melbourne by the Hon. S. E. Lees, M.L.C., and Thos. Jessep, Esq., M.L.A., with whom I visited Bendigo, during the Annual Fête and Horticultural Show. As Mr. Jessep will report on that district, I need only remark that many of the exhibits showed the care and attention devoted to fruit culture by growers there—in fact, after inspecting the miserably poor specimens prevailing in certain sections of our own Royal Agricultural Society's Exhibition, it was quite a treat to see fruit so well-grown, and so suitable for export. It must provoke anyone who has the best interests of our fruit industry at heart to find how far behind we are in most of the essentials of successful export business.

There is nothing to hinder this Colony in a few years working up good stocks of exportable fruit of many kinds, but meantime, except for citrus fruits, we have no chance of competing with our neighbours.

As the main object of my visit was to ascertain from the producers of Victoria whether the system of grading, branding, &c., recently inaugurated by the Government, had been of any practical benefit to their industries, I spent little time in the city, but proceeded at once to the producing districts. In the course of my inquiries I visited Warnambool, Koroit, Grasmere, Tower Hill, Terang, Glenormiston, Camperdown, Lilydale, &c., and had satisfactory interviews with many gentlemen representing other districts interested in exports, whose experience I was favoured with the full benefit of. I may summarise their opinions as follows:—

- (1.) The action of the Government in establishing a system of inspecting, grading, and branding produce, has been a distinct gain to the producers, and has enabled them, at an early stage, to create a very favourable impression on the British market.
- (2.) The dissemination of information by Government experts has been productive of great and lasting benefit; enabling even tyros in agriculture to fit themselves with modern appliances, and teaching the best methods of production, the necessity for cleanliness and regularity in all processes of manipulation of dairy and other produce, along with the obvious advantage of scientific system over rule-of-thumb management in the various operations.
- (3.) The chief complaint seems to be that even in Victoria the Government does not go far enough in insisting on regular and expert inspection of live stock intended for export, or whose produce is used for human consumption. Most of those consulted were strongly in favour of efficient veterinary inspection and drastic measures to avoid even the suspicion of disease, filth, or the careless manipulation of food products. There, as here, the present system of inspection seems to be somewhat perfunctory, and further powers will require to be given to inspectors and others administering the Act. The producers themselves are taking energetic measures to effect improvement in this direction, knowing that other nations are straining every nerve to keep hold of the British market.

Some few of those interviewed think Government supervision will not in future be necessary in regard to the produce of some of the better-known butter factories, which have now made a name for themselves in the market; but all substantially agree that stringent measures to prevent mixed and inferior butters being exported under fanciful names, as "Best Victorian Factory," &c., are as necessary as ever.

I was strongly impressed with the sanitary condition of most of the country factories I visited, and with the enthusiasm of the managers, who apparently give a whole-souled attention to their duties and keep an intelligent eye on any possible improvements.

With a few exceptions, the class of dairy cattle in evidence where I visited is of very mixed quality, ranging from half-bred Ayrshires, Devons, and Jerseys, down to the "scrubber" pure and simple. Some care has lately been shown in breeding from cattle of known butter-making strains, and there are now a good many pure-bred and cross-bred herds of the leading milk breeds. Many farmers are doing good work in culling out from their herds all cattle below a certain grade; and now that accurate tests are being made under the "payment by results" system, no doubt improvements will be rapid, but I am of opinion that our own dairy stocks are superior to those of Victoria, and that our best pastures can beat their best. Indeed, the only point in which we lag behind is dairy and factory management, and in this direction there is still great room for improvement in both colonies. It must be taken as an axiom that filthy conditions at any stage of butter or cheese production will inevitably lead to disaster, and it is to be feared that there are careless suppliers to most factories, who fail to insist on proper sanitation in their milking arrangements, much to the detriment of others who are doing their best to attain perfection. Only severe measures and constant inspection will be of any service with such people, and I believe that such a course finds favour with the best class of dairymen and all factory managers. In

In utilising the by-products of dairying, Victoria is probably ahead of us, and in the western district, especially, but little of the skim or butter-milk is thrown away, the larger proportion of it being fed to pigs, of which great numbers of excellent quality are to be seen among the farms.

The variety in general favour is the Improved Berkshire, and, although a good many show a decided strain of "razor back" blood, it is usual to be particular about the breeding and quality of the boars, most of which are models of thrifty, bacon-making excellence. The Yorkshire breed has been tried by some; but, although an excellent type, has found but little favour with the general public. The Tamworth has also been experimented with, but is unlikely to take a very high place in favour, as it is thought to take too long in maturing, and not to be so thrifty as the Berkshire. With our own South Coast people, a cross between a boar of this breed and a good Berkshire sow is considered an excellent bacon animal, although inclined to be slab-sided.

The Victorians seem to take greater pains in "topping up" pigs for slaughter than our people do, one of the secrets of their success being the free use of peas and beans during the last few weeks. These foods being highly nitrogenous, are much superior to maize (containing a large proportion of carbo-hydrates) for finishing off, as they give added consistency to the adipose tissue of the bacon, and produce fat of that beautifully white colour with a faint pink glow, which is so characteristic of well-fed pork.

On the farm of David Mitchell, Esq., of Lilydale, I inspected some remarkably fine specimens of the Holstein cattle. This type is much favoured by Mr. Mitchell as an all-round animal, and I was surprised to learn from him that he places this breed at the head of the list as a paying dairy beast. I am much inclined to think that, while in good rich pasture this cow may give good results, it would not be so well adapted for sparse vegetation and the consequent travelling necessary to keep such a large carcass in condition; probably a cross with a good milking Devon or Illawarra cow would give excellent results.

Mr. Mitchell's pig-feeding and bacon-curing arrangements will be spoken of elsewhere, but I may here say that his farm is a good object lesson to anyone wishing to learn modern farming.

The system adopted by the Victorian Government of encouraging the export of hares, rabbits, poultry, and small goods, seems an excellent one, and there is enormous scope here in a similar direction. It is unnecessary in a short report to deal with the methods of classing, grading, and freezing, but it will be self-evident that the large number of small industries thus encouraged must be of the greatest possible benefit to the smaller land-holders and those who do not fear to face the initial difficulties.

The conclusions I have arrived at may be briefly summarised as follows:—

Butter-making for Export.

• Begin with the bull: Institute a thorough system of inspection of all stock, dairies, factories, and means of conveyance, giving extended powers to the inspectors, to enable them to efficiently carry out their duties.

Give assistance to producers in obtaining for them the cheapest and best means of transit.

Offer the certificate of the Government to all producers of a good article, and carry out a rigid system of inspection to prevent any adulterated article of food being exported, or inferior stuff being falsely represented in any way likely to cause injury to legitimate producers or merchants.

An improvement on the Victorian system of grading might be found in the following scheme:—

Brand.	
FINEST.....	} To include the highest grades of creamery and factory butter, only to be attached after careful inspection of each separate shipment.
PRIME	
No brand	} To include all well-made and sound samples of creamery and factory butter fit for table use and calculated to arrive in prime condition.
PASTRY (Fire brand)...	
	} Second-class factory, dairy, separator, and mixed butters, fit for table, but not up to prime standard.
	} All butter calculated to reach market in a condition unfit for table use.

In case of any factory or supplier habitually failing to produce good butter, offer any advice or instruction required to remove the difficulty, charging only actual expenses in case of a visit of the expert being necessary.

Institute a system of conferences from time to time in producing centres, and encourage the interchange of ideas among producers.

Encourage the utilising of all offal, and urge the immense loss involved in allowing any waste.

Bacon for Export.

Begin with the boar: Secure for each district a regular supply of slips and stores calculated to equal the food supply available, providing for the spring flush of milk by autumn and winter farrowing, thus avoiding waste of food.

Mr. Principal Thompson and others have so fully explained the best methods of pig-culture, that I need hardly touch upon it further than to again strongly commend peas and beans for topping in preference to maize and pumpkins. Much has to be learnt in curing and getting up the bacon, &c., and it cannot but be a source of regret and surprise that, in our splendid climate, we allow Victoria, New Zealand, America, and Great Britain, to supply most of the highest-priced bacon and ham used in our own market. This must be altered, and it is not too much to hope that we will soon see wherein we fail, and not only to be able to hold our own at home, but carry the war into the enemy's lines.

In the export of

Rabbits, Hares, Poultry, &c.,

we are simply nowhere—not because we cannot produce such things, but simply because no systematic effort has been made to get a share of the trade. When in Melbourne I met a Mr. Bailey, who offered, for a consideration, to establish refrigerators in the rabbit-infested areas, to spend thousands of pounds, and employ from 700 to 1,000 men throughout the trapping season. There seems no reason why our own people should not undertake this work, and, with the experience of Victoria as a guide, ship many thousand dozens through this Board next season.

I am of opinion that a pamphlet dealing with the system of trapping, preparing, packing, &c., should be circulated freely throughout the Colony at the earliest possible date.

Poultry-raising as a paying speculation for even the smallest land-holders is an easily acquired business, and involves little hard work. In this, as in most other things, system is the essential point to be observed. We have plenty of good table breeds in the hands of our fanciers, and to raise large stocks of splendid birds need only require one season. In London and other places in Britain there is a practically unlimited market, and with our climatic advantages and abundance of cheap food we should have a large share of the trade.

A project (that of Mr. D. Munro) for making a commercial article of some portion of our surplus skim-milk deserves consideration. I find that his estimate of cost and profit looks rosy—too rosy, perhaps; but at any rate I do not disapprove of the idea, which, if it only gives half the anticipated results, would mean a vastly increased income to the dairymen.

In conclusion, I can only add that there can be no question of the absolute necessity of something being done to galvanise into life our producers, and I return from the neighbouring Colony more than ever impressed with the course of action proposed by this Board, having no doubt that similar action by the Victorian Government has been an unmixed blessing to the producers, and the means of saving many of the small farmers and others from absolute want during the late depression.

I have seen nothing to warrant the least change in the programme mapped out by the Board, which, if carried to its legitimate conclusion, is bound to confer a lasting benefit on those in whose interests it is promulgated, without injury to any existing industry or established right.

I have, &c.,

JAS. STEPHENSON,

Secretary.

Sydney, 22nd April, 1896.

XIV.—FRUIT.
SHIPPING REGULATIONS (FRUIT).

Treasury Department, Board for Exports,
Sydney, 2nd January, 1896.

THE following arrangements having been made by this Board for the shipment of fruit and similar produce to London during the season 1896, are published for the information of intending shippers. Preliminary estimates of probable space requirements should in all cases be sent to the Board at least one month prior to date of intended shipments :—

Applications for Space.

1. As the Board is held liable for the freight on all space engaged, no application for space will be entertained unless made on the form marked A, which renders persons applying for space liable for the freight due on same or on any portion of same which may be allotted to them.
2. Persons acting as agents must apply on Form B, and an authority on Form C from the person for whom they are acting must accompany their application.
3. A separate application must be made by agents in respect of each person for whom they may be applying for space.
4. The necessary application forms are supplied by the Board, and, in the event of the total space applied for exceeding that available, a *pro rata* distribution will be made amongst the various applicants.
5. Notice of the space required must be given to the Shipping Companies by the Board at least ten days prior to the sailing of the vessels from Sydney, and only such space will be secured as the Board may receive applications for at least twelve days prior to the dates mentioned.

Fruit Cases.

6. With a view to economising space in transit it is specially desirable that packages of a uniform size, containing one bushel or half a bushel, should be adopted. Sample cases most in favour with buyers can be seen at the *depôt*. The measurements are :

For Citrus Fruits.—28 inches by 14 inches by 7 inches, inside measurement ; 30 inches by 14 $\frac{3}{4}$ inches by 7 $\frac{3}{4}$ inches, outside measurement.

For Apples, Pears, &c.—28 inches by 12 inches by 8 inches, inside measurement ; 30 inches by 12 $\frac{3}{4}$ inches by 8 $\frac{3}{4}$ inches, outside measurement.

Half-bushel cases can be made of similar design, and based on above measurements accordingly.

Fruit cases to be made of Colonial pine, or other flavourless woods ; no resinous timber to be used. The top, bottom, and sides of cases to be $\frac{3}{8}$ -inch thick ; the ends and partitions, $\frac{1}{2}$ -inch thick ; three laths, $\frac{1}{4}$ -inch thickness, to be nailed on one side of the case to ensure proper ventilation.

7. It is specially desirable that only well-seasoned timber be used for fruit cases, as sweating and decay are probable where imperfectly seasoned timber has been used in the manufacture of the cases. Badly-nailed, indistinctly-branded, second-hand, or soiled cases will not be shipped.

Packing of Fruit.

8. This should, when possible, be done in the orchard, and great care must be used in the preparation, wrapping, grading, and packing of all fruits intended for export. The Expert of the Board will have power to examine and reject all improperly-prepared, wrapped, graded, and packed consignments of fruit. All such rejected consignments must be removed by the owner or agent immediately upon receiving notification of such rejection, otherwise they will be sold by auction at owner's risk, and all expenses incurred will be deducted from proceeds of said sale.

Branding of Fruit Cases.

9. Both ends of each case must be legibly branded with the name of the orchard or shipper. Dark colours only must be used, and the letters should not be less than 1 $\frac{1}{2}$ inch in length (red, pale blue, pale green, and similar colours are forbidden). The net weights or numbers should also be branded on the cases.

Despatching of Fruit.

10. In despatching fruit, care should be taken to see that each case is securely nailed with 1 $\frac{1}{2}$ -inch barbed nails, and properly branded ; and also that a way-bill, giving full particulars of the consignment (numbers, brands, weights, &c.), accompanies it, addressed to the Government Fruit Expert, Export *Depôt*, Sydney.

11. All fruit for shipment by any of the vessels named from time to time must reach the Government Export *Depôt* at least three clear days prior to the sailing from Sydney of the vessel by which it is intended to ship it, when the Board will undertake to carry out all arrangements connected with the receiving, examining, branding, and shipping of same at a cost of 2d. per case, or 1d. per half case.

12. All fruit prior to shipment will require to be examined and approved by some person or persons appointed for that purpose by the Board for Exports.

A.

Application for Space for Shipment of Fruit to London when services of an Agent are not employed.

Sir,
I have the honor to apply for space in the _____ sailing on the _____, for
cases of _____ for shipment to London ; and I hereby guarantee to pay the full freight,
viz., 2s. 6d. per case on this number if same be allotted to me, or upon any portion of same which may be allotted to me.
I also guarantee that this fruit is the produce of the Colony of New South Wales.

I have the honor to be, Sir,
Your obedient Servant,

To the Secretary, Board for Exports, Sydney.

B.

Application from Agent for Space for Shipment of Fruit to London.

Sir,
I have the honor to apply on behalf of _____ for space in the _____, sailing on the _____,
for _____ cases of _____ for shipment to London ; and I hereby
guarantee to pay the full freight, viz., 2s. 6d. per case on this number if same be allotted to me or upon any portion of
same which may be allotted to me.

Attached is authority from _____ for me to act as his agent.
I also guarantee that this _____ is the produce of the Colony of New South Wales.

I have the honor to be, Sir,
Your obedient Servant,

To the Secretary, Board for Exports, Sydney.

C.

Authority for Agent to act for Person shipping Fruit to London.

I hereby authorise Mr. _____ to act as agent for me in the shipment of _____ cases
of _____ per s.s. _____ to London.

I have made no application, direct or otherwise, to the Board for Exports for space for this lot of

Dated—
Address—

Published by order of the Board,
JAMES STEPHENSON,
Secretary.

WAGGA

WAGGA EXPERIMENT FARM.

During the year 1896-97 the Wagga Experiment Farm made rapid strides, although the drought, which was one of the worst ever experienced in the district, much retarded the farm operations. The main buildings, consisting of students' quarters, barns, offices, stables, &c., were completed in September, 1896, and afterwards cottages for the manager and farm labourers were erected.

The College.

A portion of the students' quarters was ready for occupation at the end of September, and a start was made with nine students on the 1st October. As soon as the remainder of the buildings were completed the full complement of students were taken on, viz., sixteen. By the end of the year the college had become so popular that it was found necessary to erect additional accommodation, and quarters for eight more students were erected. Even this number was not sufficient, and eventually twenty-seven students were in residence, a number of applicants being refused.

The students were engaged in practical work during the day, and lectures were delivered by the manager two nights a week. Besides this, occasionally, lectures were delivered by the visiting officers. The students were carefully instructed in all branches of practical farming, fruit-growing, dairying, &c.

An examination was held the first week in April; sixteen students presenting themselves for examination. Of these, ten passed very creditably, most of the papers being remarkably well written, showing that the students had taken great interest in their work.

At the end of the session, 23rd June, 1897, ten of the students left, several of them going straight on to the land, and the remainder going to the Hawkesbury Agricultural College for instruction in special subjects.

A portion of the farm lands close to the college was laid aside for a recreation ground; this was cleared by the students, and laid out as a football and cricket ground. A commencement was also made in forming a bicycle track and two tennis courts.

The Visitors.

Large numbers of visitors from all parts of this and the other colonies inspected the farm. Parties of farmers ranging from a dozen to a 100 came from Albury, Corowa, Cootamundra, Junee, Coolamon, Murrumburrah, Young, Cowra, and from every district round, even as far away as Cooma. So great an interest was taken in this farm that an application was made to the Railway Commissioners asking them to grant a reduction in fares for parties of farmers wishing to visit this farm, and a concession was made.

Exhibits.

During the year the following agricultural shows were attended:—Albury, Wagga Wagga, Young, Cowra, Sydney, Bathurst, Dubbo, Wellington, Mudgee, &c. Applications were received for these exhibits from all parts of the Colony, but only a few shows could be attended. The exhibits, which were very numerous, consisted of specimens of all the crops grown on the farm. At some of the southern shows the collection was so large that it occupied more space than some of the societies could provide, and it nearly filled two railway trucks.

The manager attended some of the principal shows, and explained the value and cultivation of the numerous crops. He also acted as judge in farm produce and other sections.

Several of the southern districts were also inspected by the manager, and lectures delivered by him on farm subjects.

Area under Cultivation.

An additional area of about 450 acres of land was cleared ready for ploughing, making 1,250 acres in all. Unfortunately the protracted drought prevented ploughing taking place as early as it should have done, and, as a result, only about 1,000 acres were under cultivation.

The timbered portion of the farm now consists of about 1,250 acres, or a total area cleared and uncleared of 2,500 acres.

The crops under cultivation were as follows:—

Wheat	...	...	...	...	...	...	...	...	450 acres.
Oats	...	...	...	...	...	...	...	...	180 "
Barley	...	...	...	...	...	...	...	...	160 "
Maize	...	...	...	...	...	...	...	...	20 "
Sorghum	...	...	...	...	...	...	...	...	30 "
Cow pea	...	...	...	...	...	...	...	...	15 "
Root crops	...	...	...	...	...	...	...	...	10 "
Experiment plots	...	...	...	...	...	...	...	...	45 "
Vegetables	...	...	...	...	...	...	...	...	10 "
Orchard and vineyard	...	...	...	...	...	...	...	...	80 "

1,000 acres.

Land cleared for vineyard	...	...	...	...	...	...	...	20 "
" crops	...	...	...	...	...	...	...	230 "

1,250 acres.

Application for a further area of land, consisting of about 850 acres of the temporary common adjoining the farm, was applied for for the purpose of carrying out experiments with stock, &c.

Farm Crops.

Wheat.—Most of the 450 acres under wheat was new land, just cleared of green timber, and therefore the conditions under which this crop was grown were anything but favourable. Besides this, the season was a very bad one, being one of the worst ever experienced in the district. Some thirty varieties were under cultivation in plots ranging from 2 acres up to 50 acres. Of these varieties, the following gave by far the best results:—Australian Talavera, Berthoud, Hudson's Early Purple Straw, Farmer's Friend,

Friend, Steinwedel, White Lammas, Tardent's Blue, King's Jubilee, Allora Spring, and Early Baart. The early sown crops were again far superior to the later sown ones. The drilled crops were again far superior to the broadcast, the thin sown being especially good.

The applications for seed wheats were again very numerous, and long before the sowing season commenced the whole of our stock was sold out. It was estimated at the close of the season that applications had been received for at least ten times as much as the quantity available. There is every appearance of the demand keeping up for these wheats, and with the larger area under cultivation this coming season, there is every prospect of this proving a most profitable section of the farm.

Barley.

The six varieties of barley under trial were sown in large areas.

Of the feed barleys the Skinless and Algerian varieties gave the best results.

Of the malting barleys, Carter's Prize Prolific again stood first. The malting barleys were sown fairly early in April and made a very promising start, but the hot, dry weather experienced when the crops were ripening had a very bad effect on the quantity and quality of the grain. It was intended that this barley should be exported as a trial for malting purposes, but the sample was not considered sufficiently good for a trial lot. As the crops all over the Colony were more or less a failure, there was a large demand for seed, the greater portion of the crop was disposed of at satisfactory prices for that purpose. Skinless barley was also in great demand for seed.

Oats.

Some fifty varieties were under trial, but, owing to the bad season, the yield of grain in most instances was anything but satisfactory. Algerian, Brown Calcutta, Early Red Texas, Carter's Prize Cluster, and Danish were the only ones to make a good show, and although these produced a fair crop of grain, the sample was very light.

Experiment Plots.

Next to the irrigation plots a piece of land some 70 acres in area was cleared and ploughed ready for cultivation. It was then fenced and wire-netted in and laid out for experiment work. It was intended to carry out small experiments of say a single row of each variety in one portion, and from that to work on to 1 acre and 5 acre blocks.

During the past season the crops under trial in these plots were:—

Wheat	14 acres.	340 varieties.	Sugar Beet	2 acres.	4 varieties.
Sorghum	15 "	12 "	Turnips	2 "	10 "
Maize	5 "	3 "	Buckwheat	2 "	3 "
Cow Peas	15 "	4 "	Millet	2 "	10 "
Barley and Tares ...	1 "		Pumpkins		
Rye and Tares	1 "		Melons		
Soy Bean	1 "		Squashes		
Mung Bean	1 "	2 varieties.	Vegetable marrows		
Lima Bean	1 "	3 "	Cucumbers		
Mangolds	1 "	6 "			

} 2 acres—160 varieties in all.

In consequence of the drought it was found necessary to cut the greater portion of the above crops with the exception of the wheats, roots, and pumpkins, squashes, &c., for feeding to the stock on the farm, but the following notes on results will be found interesting.

Sorghum.—Of the twelve varieties under trial the following three again proved the most profitable for growing in this district, viz., Early Amber Cane, Planters' Friend, and Black African. In spite of the exceptionally hot, dry season, these varieties each produced upwards of 15 tons of green fodder per acre without manuring. The continued dry season retarded the growth of the second crop so much that it was not thought worth cutting, but the dairy stock were turned on to it and eat it down. The varieties grown for their seed, viz., Milo Maize, Kaffir Corn, Dhonra, and Guinea Corn were also cut for fodder, as the want of moisture did not allow of their maturing.

Maize.—Three quick-maturing varieties, viz., Queen of the Prairies, Early Mastodon, and Ninety-Day, were sown, but as there was no chance of their maturing they were also cut for green fodder.

Cow Peas again proved a most valuable crop for this district, as with a very small amount of moisture they produced a heavy crop of excellent fodder. The black variety still yielded the best.

The root crops were more or less a failure, as in consequence of the dry weather the roots were very small and the plant all went to tops.

The pumpkin and melon beds were again a most valuable standby, producing a good crop, which came in very useful for stock feed and vegetables.

The Orchard.

This portion of the farm promises to prove a most attractive and profitable one. From the first planting (1894) to the present date every attention has been given to the trees in the way of cultivation, pruning, spraying, &c. The result has been highly satisfactory, and I have no hesitation in saying that in a few years this will be one of the finest orchards in Australia. The total area of the orchard is 70 acres, and it contains upwards of 6,000 trees. A speciality has been made of experiment work and fruit drying. In the portion devoted to experiments nearly 2,000 varieties of fruits are under trial, consisting of apples, apricots, almonds, cherries, Chinese raisins, figs, guavas, loquats, mulberries, nectarines, olives, Oriental plums, pears, peaches, plums, pomegranates, persimmons, pecan nuts, quinces, walnuts, &c. These form what is undoubtedly the finest collection of fruits in the Colony. The drying portion is planted with a few of the best varieties of the following, planted on a fairly large scale, viz., prunes, apricots, peaches, and smaller quantities of other fruits.

The Vineyard.

The vineyard, consisting of some 12 acres, is on the eastern side of the farm, next to the orchard. The vines have been propagated from cuttings, about 2,000 being planted in 1894, and upwards of another 2,000 in the years 1895 and 1896. One portion of the vineyard has been devoted to experiment work, and in it there are upwards of 100 varieties of grapes under trial. There are also 2 acres of raisins, 1 acre

acre Sultanas, 1 acre currants, and a quantity of table grapes. The growth of the vines has been so satisfactory that it has been decided to further extend the vineyard, and for that purpose a block of land some 20 acres in area has been cleared for the purpose of planting wine-grapes, it being intended to use this portion for experimenting on wine-making, &c., and for training students in wine-growing and making.

The vines in the present vineyard were planted 10 x 10, so that the land could be worked with pair-horse cultivators, the same as the orchard. Numbers of vine-growers from all parts of the colony, who have inspected the vineyard, expressed the opinion that there was no doubt about the wide system of planting being the best, and from appearances of growth there can be little doubt of the result.

Irrigation Plots.

With the view of carrying out a number of experiments in connection with the irrigation of farm crops, vegetables, &c., an old creek running through a portion of the farm was dammed up. The bed of the creek, for a distance of about 10 chains, was scooped out, taking away a number of little islands, and taking off a number of points, so that when finished the dam was left in a fairly even pear-shaped form, the widest end being at the dam bank. The dam bank was 15 feet deep at the highest point. It was calculated that this dam had a capacity of 40,000 yards, *i.e.*, would hold about 7,000,000 gallons of water.

A piece of land, sloping each way to a large drain leading into the dam, of a little over 10 acres in area, was laid out in two blocks of 5 acres each, and these again subdivided into $\frac{1}{2}$ -acre blocks. One of these 5-acre blocks was at once put into cultivation, the land was ploughed a foot deep, it was then harrowed and rolled, and brought to a fine tilth by working it with a spading harrow. It was then planted with vegetables. The other block could not be ploughed as the weather set in very dry, but it will be brought into cultivation as soon as possible.

A small bank of about 300 cubic yards was constructed on the slope above the plots, and when the dam fills it is intended to pump the water from the dam up to this bank. The water can then be run down through pipes on to the plots. As the plots are on a gentle slope, drills will be opened between the rows of the various crops by means of a horse cultivator, and the water be run from the pipes down these drills.

As crops of all descriptions can be grown successfully through the greater portion of the year in this district without irrigation, it is estimated that the crops in these plots will not require to be watered, except through some of the summer months; and, therefore, the quantity of water which can be collected in this dam should be quite sufficient to keep the 10 acres going right through the year.

About 5 acres of the area under irrigation will be kept for vegetables. The other portion it is intended to use for experimenting on lucerne, grasses, and other fodder crops, and also for nursery work.

A small stable and implement shed has been erected close to these plots for stabling four horses and storing the implements used on the irrigation and experiment plots.

Dairy.

In consequence of the protracted drought the work of starting the dairy was much retarded. A small herd of Jerseys was, however, purchased locally, and a fine young Jersey bull was obtained from the well-known breeder, D. Hyam, of Jamberoo. Only sufficient cows to supply the requirements of the farm were kept, in consequence of the scarcity of feed. For months not a blade of grass was to be seen in the paddocks, and, therefore, the cattle had to be fed at least twice a day. A commencement was also made with the dairy buildings, and everything got ready to give this branch of the farm a fair chance of being pushed ahead as soon as the drought broke up.

A milking shed was erected, and arrangements made for putting up large shelter-sheds for the cattle.

Poultry and Bee Farm.

About 4 acres of land has been set aside for this branch of the farm, and arrangements made for at once erecting the pens and houses. With the large supply of wheat-screenings available, and the suitability of the native flora for the production of first quality honey, this section should also be a very profitable one.

Piggery.

The farm fencer, with the aid of the students, constructed a piggery capable of holding from 300 to 400 pigs. The fencing was composed of three stringybark rails and gum posts. The main portion of the piggery was divided into four $\frac{1}{2}$ -acre runs. Twelve breeding pens and two boar pens were also erected, together with shelter-sheds, feed-room, &c. The total area of the piggeries is about $2\frac{1}{2}$ acres, and land was left on one side uncultivated to admit of extension if required. Six Berkshire sows were purchased from the Hawkesbury Agricultural College and one from a well-known breeder at Bathurst. A pure bred Berkshire boar was also obtained from Mr. Walker, of Tenterfield.

The piggery at the Wagga Experiment Farm will undoubtedly be a most profitable section. In spite of the great heat experienced during the summer of 1896-97, the pigs at the farm kept in thorough condition on a small ration and proved how hardy the Berkshire breed is. With the aid of the large quantity of wheat and barley screenings available on this farm, together with the skim-milk from the dairy and the surplus vegetables of every description, there is every prospect of raising a large number of pigs at a very small cost.

I have, &c.,
GEO. VALDER.

REPORT OF THE TRAVELLING AGRICULTURAL INSTRUCTOR.

I HAVE the honor to submit a report pertaining to my work during the six months ending 31st December, 1897.

As will be remembered, I was appointed to my present position on 1st July; but the Minister particularly desired that I should attend the Agricultural Conference on the 8th, 9th, and 10th July and the Dairy Conference on the 15th, 16th, and 17th, held at the Hawkesbury Agricultural College, and at which I read papers and took part in the discussion; consequently I was not able to commence actual work until Monday, the 19th July. On attached tabulated form you will see at a glance the places I have visited, either to lecture or in other ways give instruction to farmers.

I have great pleasure in stating that I have been received everywhere most kindly, although I had to fight a considerable amount of opposition towards lecturers on agriculture generally. After my lectures, in almost every every case, I was very cordially thanked, with many expressions of a flattering description as to the value of my lecture; also very hearty votes of thanks were passed to the Minister and the valuable work of the Department generally recognised.

Although I have visited a large number of farms in the various districts, I was not able in the limited time at my disposal to do all that was required in this respect, and in almost every instance I was requested to return to the district again after my more pressing engagements were completed, and devote more time to give advice on the farms.

In most parts of the Colony the methods of cultivation, the storing of fodder for food for stock, and the use of improved labour-saving appliances are very much behind the times.

There is, however, a very sincere desire among the occupiers of the soil to improve matters in this respect generally. I may say I am simply astounded to see the very large quantity of agricultural land in this Colony little known of; and I have no hesitation in saying that, with the steps being taken by the Department, New South Wales will far eclipse the other Colonies as far as the production of the soil is concerned.

I have travelled 13,180 miles by rail, water, and coach, besides hundreds of miles in private vehicles, inspecting crops and farms, from the 20th of July to the 25th December, 1897.

I thank you most sincerely for the co-operation and assistance you have always given me in carrying out my duties.

J. L. THOMPSON.

PLACES visited from 19th July to 24th December.

Date.	Place.	Business.
1897.		
20 July	Glen Innes	Lecture, Conference, and Inspection.
22 "	Scone	Conference and Inspection.
28 "	Macleay	Lecture, Conference, and Inspection.
29 "	Brushgrove	" " "
29 "	Ulmarra	" " "
30 "	Lawrence	" " "
31 "	Chatsworth	" " "
2 August	Copmanhurst	" " "
2 "	Grafton	" " "
3 "	Stockyard Creek	" " "
5 "	Lismore	" " "
6 "	Coraki	" " "
7 "	Casino	" " "
9 "	Alstonville	" " "
10 "	Ballina	" " "
11 "	Broadwater	" " "
12 "	Woodburn	" " "
17 "	Bangalow	" " "
18 "	Murwillumbah	" " "
24 "	Armidale	" " "
25 "	Cootamundra	" " "
31 "	Wagga Wagga	Attending Show.
3 and 4 September	Melbourne	Judging at Show.
8 September	Albury	Attending Show.
10 "	Yass	Attending Show.
13 "	Thurgoona	Lecture, Conference, and Inspection.
15 "	Tumut	" " "
17 "	Gundagai	" " "
18 "	Adelong	" " "
20 "	Batlow	" " "
21 "	Courabyra	" " "
22 "	Tumbarumba	" " "
25 "	Wagga Wagga	" " "
28 "	Moama	" " "
29 "	"	Judging at Show.
1 October	Bendenine	Lecture, Conference, Inspection.
1 "	Yass	" " "
2 "	Bowral	" " "
4 "	Goulburn	" " "
7 "	Narrandera	Judging at Show.
8 "	"	Lecture, Conference, Inspection.
9 "	Grenfell	" " "
11 "	Bowna	" " "
13 "	Walla Walla	" " "
14 "	Corowa	" " "
15 "	Germanton	" " "
16 "	Cookardinia	" " "
18 "	Culcairn	" " "

Date.	Place.	Business.
1897.		
19 October	Cootamundra	Lecture, Conference, Inspection.
20 "	Gunning	" " "
22 "	Wentworthville	" " "
23 "	Junee	" " "
26 "	Lithgow	" " "
28 "	Logan Brae, Bathurst.	" " "
29 "	Millthorpe	" " "
2 November	Dubbo	" " "
4 "	Nyngan	" " "
5 "	Girilambone	" " "
8 "	Pera Bore, Bourke	Conference.
9 "	Cowra	Lecture, Conference, Inspection.
10 "	Canowindra	" " "
12 "	Hawkesbury	" " "
15 "	Orange	" " "
16 "	Springhill	" " "
18 "	Gulgong	" " "
19 "	Rylstone	" " "
20 "	Mudgee	" " "
24 and 25 November	Berry	Judging at Show.
26 November	Gosford	Lecture, Conference, Inspection.
29 "	Parke	" " "
30 "	Condobolin	" " "
2 December	Forbes	" " "
3 "	Eugowra	" " "
7 "	Coonabarabran	" " "
10 "	Gunnedah	" " "
15 "	Balmoral	" " "
17 "	Cecil Park	" " "
20 "	West Maitland	" " "
21 "	Largs	" " "
22 "	Dungog	" " "
24 "	Armidale	Land Libel Case.

1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

RAILWAYS AND TRAMWAYS.

(REPORT OF RAILWAY COMMISSIONERS, QUARTER ENDING DECEMBER, 1897.)

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

Offices of the Railway Commissioners of New South Wales,
21st January, 1893.

TO THE HONORABLE THE MINISTER OF RAILWAYS,—

Sir,

In accordance with the provisions of the 44th clause of the Railway Act of 1888, 51 Vic. No. 35, we have the honor to submit, for the information of Parliament, our Report for the quarter ending 31st December, 1897, upon the subjects specified, viz. :—

I.—STATE OF THE TRAFFIC.

RAILWAYS.	Quarter ending 31st Dec., 1896.	Quarter ending 31st Dec., 1897.
Miles open	2,576½	2,639½
Revenue ... { 1896. 1897. } ...	£909,575	£894,712
{ Passenger ... £289,012 £294,859 } ...		
{ Merchandise ... £620,563 £599,853 } ...		
Expenditure	£426,195	£423,802
Train miles run	2,175,454	2,187,760
Earnings per train mile	8/4¼	8/2¼
Expenditure per train mile	3/11	3/10½
Percentage—Expenditure to earnings	46·86	47·37
Number of passengers	5,810,483	5,912,452
Tonnage of goods traffic	1,094,110	1,087,667
Tonnage of live stock traffic	46,720	41,458

TRAMWAYS.	Quarter ending 31st Dec., 1896.	Quarter ending 31st Dec., 1897.
Miles open	61	62½
Revenue from all sources	£77,027	£78,949
Expenditure	£65,166	£67,848
Tram miles run	759,751	819,961
Earnings per tram mile	2/0¼	1/11
Expenditure per tram mile	1/8½	1/7¾
Percentage—Expenditure to earnings	84·60	85·94
Number of fares collected	18,225,383	18,694,229

RAILWAYS.

II.—CONDITION OF THE LINES.

A report as to the condition of the lines will be found as an Appendix, page 4.

III.—SPECIAL RATES.

A statement of the special rates, and the reasons for making the same, will be found as an Appendix, page 4.

IV.—STAFF.

These returns are given as an Appendix, pages 5 to 7.

GENERAL REMARKS.

The revenue during the quarter has fallen off to the extent of £14,863, and the expenditure has been reduced by the sum of £2,393.

The passenger traffic shows an increase in every branch, and in the aggregate amounts to £5,847. For the increased earnings 101,969 additional journeys were made.

The Goods Branch shows a falling off of £20,710. Wool shows a reduction of £17,336; and live stock, £10,712. General merchandise increased £3,795; and minerals, £3,543.

The goods tonnage, including wool, shows a reduction of 28,670 tons. Coal and coke increased 4,053 tons, and other minerals 18,174 tons.

The total train mileage has increased 12,306 miles. This increase, however, is after providing additional passenger service to the extent of 58,237 train miles, and making provision for the working of new lines opened subsequent to the corresponding quarter in 1896.

In the Goods Branch the train mileage shows a reduction of 52,700 miles.

CONDITION OF THE LINES AND ACCOMMODATION FOR THE TRAFFIC.

The lines are in good order, and the improvements of grades and curves, and relaying, resleepering, and reballasting continue to make satisfactory progress.

TRAMWAYS.

The earnings have increased £1,922. 60,210 additional tram miles were run, and 468,846 additional fares collected. The working expenses exceed those for the corresponding period in 1896 by £2,682, owing to the additional traffic and a considerable increase in the cost of fuel.

We have the honor to be,

Sir,

Your most obedient servants,

CHARLES OLIVER,
Chief Commissioner.

W. M. FEHON,
Commissioner.

DAVID KIRKCALDIE,
Commissioner.

APPENDIX I.

NEW SOUTH WALES GOVERNMENT RAILWAYS.

Report on Condition of Permanent Way and Works for the Quarter ending 31st December, 1897.

Sir, Office of Engineer-in-Chief for Existing Lines, 6th January, 1898.
I have to report for the information of the Commissioners that the Permanent Way and works have been efficiently maintained during the past quarter.

Satisfactory progress has been made with relaying, resleepering, and rebalasting operations. The duplication of the line between Blackheath and Mount Victoria has been almost completed, and deviations to improve the grades between Orange and Mullion Creek have been brought into use. Further grade improvements are being vigorously pushed on between Blayney and Orange on the Western Line, between Jindalee and Cootamundra, at Frampton, and between Bethungra and Illabo on the Southern Line; and between Old Junee and Coolamon on the South-Western Line, portions of these improvements have been brought into use.

A section of the work in connection with the renewal of the Wagga Wagga viaduct has been completed, and a new steel bridge has also been constructed over Ironbark Creek on the Northern Line.

I have, &c.,

THOMAS R. FIRTH,

Engineer-in-Chief for Existing Lines.

The Secretary to the Railway Commissioners.

APPENDIX II.

NEW SOUTH WALES GOVERNMENT RAILWAYS.

STATEMENT, in accordance with clause No 44 of the Railway Act, showing the Special Rates which have been made, and the reasons for making such rates, Quarter ending 31st December, 1897.

Article.	Rate.	Reason for rate.
Blue black	Miscellaneous class rates and conditions	To equalise rates.
Iron	Eskbank to Sydney in lots of not less than 8 tons per 4-wheeled truck for export beyond the Colony, Miscellaneous class rates.	To encourage traffic.
Ice	To be used on the "Up" journey for cooling milk, cream, or meat will be carried free on the "Down" journey if sent in empty return milk vans or refrigerator cars.	do do
Ice	Ordinary through mileage rates to be charged to all branch lines	do do
Oil (crude in tanks)	Newcastle to Clyde, £4 1s. 4d. per tank of 6 tons	} do do
	Bathurst to Clyde, £5 6s. 3d. do do	
	Goulburn to Clyde, £4 17s. 5d. do do	
	W. Maitland to Clyde, £4 14s. 3d. do do	
	Empty tanks to be returned free	} do do
Rabbits (dead)	Groongal to Sydney in van loads, 1½d. per ton per mile up to 150 miles, and 1¼d. per ton for each succeeding mile—Minimum 5 tons per truck.	
Rail's (150 tons).....	Molong to Sydney at the convenience of the Department B. class rates and conditions.	To secure traffic.
Lead bullion	To be charged at the same rate as for silver bullion	To equalise rates.

APPENDIX III.

NEW SOUTH WALES GOVERNMENT RAILWAYS AND TRAMWAYS

RETURN, in accordance with Clause No. 44 of the Railway Act, showing the Appointments of Employees from the 1st October to the 31st December, 1897.

Date.	Name	Position	Rate	Remarks
1897				
ENGINEER IN CHIEF FOR RAILWAYS BRANCH				
1 Oct	Donahoe, John	Labourer	6/6 per day	Vice W Smith
2 "	Jones, William	Labourer	6/6 per day	Vice E Hollis
4 "	Forde, Joseph	Fettler	7/6 per day	Vice I Hartigan,
4 "	Fletcher, Joseph	Labourer	6/6 per day	Vice G Jackson
7 "	Murray, Edward	Labourer	6/6 per day	Vice H Worley
12 "	Haiding, Albert	Labourer	6/6 per day	Vice T Richings
20 "	Doogan, Hugh	Labourer	6/6 per day	Vice B Rules
22 "	Lake, Carl Albert	Labourer	6/6 per day	Vice J Moore
25 "	M'Donald, Donald	Labourer	6/6 per day	Vice H Coath
25 "	Kelly, William	Labourer	6/6 per day	Vice E Cairnsworth
1 Nov	Hall, William	Labourer	6/6 per day	Vice H Spooner
4 "	Kerr, David	Labourer	6/6 per day	Vice A Pardy
19 "	Arnold, William	Fettler	6/6 per day	Transferred from Extra Staff
19 "	Ryan, Thomas	Fettler	6/6 per day	
19 "	M'Donough, John	Fettler	6/6 per day	Vice T Dodds
26 "	Rogan, John	Labourer	6/6 per day	
26 "	Pepper, Frederick	Labourer	6/6 per day	Vice J Richards
27 "	Kohlhardt, Charles	Labourer	6/6 per day	Vice L Tracey
3 Dec	Kane, James	Fettler	6/6 per day	Transferred from Extra Staff
7 "	Burke, John	Labourer	6/6 per day	Vice J Connolly
17 "	O'Donoghue Patrick	Fettler	6/6 per day	Transferred from Extra Staff
20 "	Walker, Edward	Office boy	2/ per day	Vice G Abbott
CHIEF MECHANICAL ENGINEER'S BRANCH				
4 Oct	Dean, Charles	Litter	10/4 per day	Re employed
10 "	Millard, Robert	Apprentice	10d per day	Vice J Hurley
11 "	Ewei, William	Machinist	8/ per day	Vice G Baker
16 "	Cameron, Angus	Shop boy	2/3 per day	Vice T Rose
22 "	Filhoit, George	Call boy	2/6 per day	Vice M Cockburn
28 "	Walker, Donald	Telephone boy	2/6 per day	Vice J Giverson
11 Nov	Haddon, Leslie	Apprentice	10d per day	Transferred from Extra Staff
12 "	Williams, John	Fitter	9/6 per day	
15 "	Close, Hubert	Messenger	2/ per day	Vice J G Smith
26 "	Holloway, Charles	Cleaner	3/3 per day	
29 "	Burt Frederick	Fuelman	6/6 per day	Vice A Clark
29 "	Richard Frank	Messenger	10/ per week	Vice F McFadden
29 "	Bruce, Edward	Fuelman	6/6 per day	Vice R Given
30 "	Webb, John	Cleaner	1/ per day	Transferred from Extra Staff
1 Dec	Smith, Sidney	Labourer	6/6 per day	
6 "	Wathes, James	Cleaner	5/6 per day	Vice W Watson
6 "	Lander, Leslie	Cleaner	5/ per day	
20 "	Oxley, James	Labourer	6/6 per day	Vice J Blairie
20 "	Olris, John	Shop boy	3/ per day	Vice W Downie
28 "	Glover, Alfred	Cleaner	3/3 per day	Vice R Bone
30 "	Tripp, Sydney	Shop boy	3/ per day	Vice G Prizey
30 "	Colley, Ernest	Shop boy	4/ per day	Vice J Haddie
30 "	Irvine, William	Apprentice	10d per day	Transferred from Extra Staff.
CHIEF TRAFFIC MANAGER'S BRANCH				
1 Oct	Schofield, Herbert	Junior porter	3/4 per day	Vice Mrs Carlon
1 "	Croke, Mrs Bridget	Gatekeeper	1/ice house	
8 "	Travis, Benjamin	Porter	6/ per day	Vice T Deviney
11 "	Kirby, John	Junior porter	2/6 per day	Vice G Watson
11 "	Greville, Stanley	Junior porter	2/6 per day	
13 "	Wark, John	Telegraph probationer	2/6 per week	Vice J Richardson
16 "	Clements, William	Junior porter	2/6 per day	
16 "	Grant, Thomas	Junior porter	2/6 per day	Vice M Bedford
16 "	McCaulley, Mary	Gatekeeper	1/ice house	Vice J Webster.
16 "	Thomas, Mark	Junior porter	2/6 per day	Vice M Keogh
29 "	Sherack, Mabel	Gatekeeper	7/ per week	Vice T Taylor
1 Nov	McDonnell, Abigail	Gatekeeper	7/ per week	Vice M Thomas
3 "	Forde, Isabella	Platform attendant	6/ per week and house	Vice B Ryan
4 "	Shacklev, Margaret	Gatekeeper	1/ice house	
6 "	O'Neill, Mary	Barrack attendant	10/ per week	Vice M Vandell
6 "	Williams, Caroline	Gatekeeper	15/ per week	Vice M Russell
8 "	Kingston, Elizabeth	Gatekeeper	5/ per week	Vice T Mayne
11 "	McEvoy, William	Junior porter	2/6 per day	
13 "	Reddon, Thomas	Porter	6/ per day	Transferred from Extra Staff
18 "	Mullins, Margaret	Platform attendant	5/ per week	Vice M Findlay
27 "	Tindle, Sarah	Gatekeeper	10/ per week	Vice C Neil
28 "	Thomas, Annie	Gatekeeper	7/ per week	Vice M Lever
3 Dec	Adams, Ernest	Postal assistant	10/ per week	Vice F Lane
3 "	Briden, Alexander	Junior porter	2/6 per day	
3 "	Bowe, Miss Jessie	Gatekeeper	7/ per week	Vice W Norton
7 "	Algow, Mary	Gatekeeper	5/ per week and house	
8 "	Jennings, Arthur	Telegraph probationer	2/6 per week	Vice W Kennedy.
10 "	Clarke, Miss Jane	Barrack attendant	7/6 per week	Vice S Wood
11 "	Loiseman, Annie	Gatekeeper	7/ per week	
13 "	Corbett James	Telegraph probationer	2/6 per week	Vice A Platt
17 "	Dav, Thomas	Junior porter	2/6 per day	Vice G Wright
22 "	Woods, Susan	Gatekeeper	5/ per week	Vice A McFadden
24 "	Cantwell, Mary	Gatekeeper	5/ per week	Vice R. Moore.
24 "	Watson, George	Junior porter	2/6 per day	
SIGNAL AND INTERLOCKING ENGINEER'S BRANCH				
7 Oct	Gaired, Edward	Assistant signal fitter	7/6 per day	Transferred from Extra Staff.
7 "	Ansty, George	Labourer	6/6 per day	
27 "	Poole, George	Driller	8/ per day	
27 "	Shaw, James	Driller	7/ per day	
POSTMEN AND ESTABLISHMENT BRANCH				
29 Oct	Evans, David	Labourer	6/ per day	Transferred from Extra Staff
TRAMWAYS—LOCOMOTIVE BRANCH				
15 Oct	Cleary, Patrick	Boy labourer	2/6 per day	Vice T W Stephenson
22 "	Smith, William	Shop boy	3/ per day	Vice J F Murray
9 Dec	Taylor, Mrs Martha	Office cleaner	1/ per week	Vice Mrs Campbell
13 "	Nehmes, Archibald G	Shop boy	2/3 per day	Vice R M Farrell
29 "	Neilan, Martin B	Shop boy	2/6 per day	
TRAMWAYS—TRAFFIC BRANCH				
28 Oct	Bryant, Walter E	Junior car cleaner	2/6 per day	Vice C Payne
4 Nov	Hippit, Jesse J	Point cleaner	6/ per day	Vice H Johnson.
13 "	Faibann, John A	Junior conductor	6/ per day	Vice J W Conn
1 Dec	Bennett, Percival G	Junior conductor	6/ per day	Vice J Cairick
14 "	Duckworth, George F	Junior car cleaner	2/6 per day	Vice H Patterson
14 "	Madden, Frederick M	Junior conductor	6/ per day	Vice J H Kelly
TRAMWAYS—MAINTENANCE BRANCH				
Nil				

APPENDIX IV.

NEW SOUTH WALES GOVERNMENT RAILWAYS AND TRAMWAYS.

RETURN, in accordance with Clause No. 44 of the Railway Act, showing the Removals of Employees from the 1st October, to the 31st December, 1897.

Date.	Name.	Position	Rate.	Remarks.
1897.				
ENGINEER-IN-CHIEF FOR EXISTING LINES BRANCH.				
5 Oct	Coath, Henry	Fettler	7/6 per day	Deceased.
12 "	Pardy, Albert	Fettler	7/6 per day	Deceased
14 "	Moore, John	Fettler	7/6 per day	Retired
22 "	Tracey, Lawrence	Ganger	8/6 per day	Deceased
25 "	Richards, John	Fettler	7/6 per day	Resigned
29 "	Bree, John	Fettler	7/6 per day	Written off books
4 Nov.	Reid, Arthur	Fettler	7/6 per day	Retired
16 "	Abbott, George	Office boy	2 per day	Discharged.
17 "	Ryan, Michael	Fettler	7/6 per day	Deceased
18 "	Mulholland, Michael	Fettler	7/6 per day	Resigned
25 "	Harris, Richards	Fettler	7/6 per day	Resigned
16 Dec	King, Charles	Fettler	7/6 per day	Deceased
16 "	Power, John	Fettler	7/6 per day	Resigned
18 "	Barton, William	Fettler	7/6 per day	Retired
31 "	Hawker, Enos	Ganger	9/ per day	Retired
31 "	Gamfield, John	Fettler	7/6 per day	Retired
CHIEF MECHANICAL ENGINEER'S BRANCH				
6 Oct	Courtney, James	Striker	7/6 per day	Discharged
9 "	Cockburn, Mathew	Driver	14/ per day	Resigned
18 "	Hill, Arthur	Fireman	10/ per day	Resigned
18 "	Clark, Albion	Examiner	9/ per day	Deceased
20 "	Watson, William	Examiner	10/3 per day	Deceased
22 "	Edwards, John	Driver	15/ per day	Resigned
27 "	Smith, John G	Fireman	10/ per day	Resigned
8 Nov.	Goodsen, Edward	Timmer	9/4 per day	Discharged
9 "	Angus, Robert	Fitter	10/4 per day	Deceased
10 "	Haddie, John	Examiner	10/ per day	Deceased
11 "	McFadden, Frederick	Stoeman	8/6 per day	Resigned
12 "	Wright, William	Striker	7/6 per day	Left the Service
19 "	Glynn, John	Machinist	8/6 per day	Discharged
22 "	Bone, Raisbra	Cleaner	3/3 per day	Discharged
24 "	McKechnie, Hugh	Labourer	7/ per day	Deceased
12 "	Gray, John	Brass finisher	9/8 per day	Deceased
2 Dec	Puzet, George	Striker	7/6 per day	Deceased
1 "	Cemm, Joseph	Striker	7/6 per day	Resigned
6 "	Jones, Alfred	Striker	7/ per day	Deceased
CHIEF TRAFFIC MANAGER'S BRANCH				
1 Oct	Caillon, Mrs	Gatekeeper	1 fee house	Resigned
2 "	Lions, Joachim	Telegraph probationer	2/6 per week	Resigned
4 "	Lane, Frank	Porter	6/ per day	Resigned
6 "	Webster, James	Porter	6/ per day	Resigned
10 "	Gray, George	Clerk	£130 per annum	Deceased
14 "	Taylor, William	Guard	10/6 per day	Deceased
16 "	Bedford, Mabelle	Gatekeeper	1 fee house	Resigned
20 "	Foster, William	Station master	£175 per annum	Deceased
23 "	Mayne, Thos	Junior porter	3/4 per day	Resigned
25 "	Ryan, Bridget	Gatekeeper	1 fee house	Resigned
25 "	Dunn, Charles	Porter	7/6 per day	Discharged
27 "	Tippet, Ernest	Porter	7/6 per day	Discharged
27 "	Devei, John	Porter	7/ per day	Discharged
29 "	Wright, George	Night gatekeeper	7/ per day	Deceased
29 "	Keogh, Mary	Gatekeeper	7/ per week	Resigned
30 "	Thomas, Mary	Platform attendant	6/- per week	Resigned
31 "	Taylor, Teresa	Gatekeeper	7/ per week	Resigned
31 "	Hatch, Alfred	Assistant timekeeper	£90 per annum	Resigned
Nov.	Yandell, Margaret	Gatekeeper	15/ per week	and house Discharged
6 "	Clarke, Benjamin	Porter	6/ per day	Resigned
10 "	Poole, James	Conductor	7/6 per day	Deceased
10 "	Russell, Mary	Barack attendant	15/ per week	Resigned
10 "	Simpson, Thomas	Junior clerk	£120 per annum	Discharged
17 "	Howden, William	Porter	7/ per day	Deceased
18 "	Findlay, Mary Ann	Platform attendant	3/ per week	Resigned
18 "	Parker, Arthur	Junior porter	3/4 per day	Discharged
18 "	Platt, Adam	Junior porter	2/6 per day	Resigned
22 "	Windson, Thomas	Porter	7/ per day	Deceased
26 "	Neill, Clara	Gatekeeper	10/- per week	Resigned
27 "	Levei, Mary Ann	Gatekeeper	7/ per week	Resigned
30 "	McCarthy, William	Officer in charge	£150 per annum	Retired
1 Dec	Smith, Robert	Porter	7/ per day	Deceased
2 "	Owens, James	Porter	6/ per day	Discharged
3 "	Anderson, Peter	Shunter	7/6 per day	Resigned
4 "	Wilson, John	Shunter	7/6 per day	Discharged
6 "	Norton, William	Gatekeeper	5/ per week	Resigned
9 "	Turner, Mis	Gatekeeper	15/ per week	and house Position abolished
9 "	Maskell, Mis Alice	Gatekeeper	1 fee house	Position abolished
10 "	Wood, Susan	Gatekeeper	7/ per week	Resigned
14 "	Moore, Richard	Junior porter	2/6 per day	Discharged
16 "	Henry, George	Porter	8/ per day	Discharged
17 "	Rice, James	Porter	7/ per day	Deceased
18 "	Hunt, Richard	Watchman	7/ per day	Discharged
18 "	Matthews, James	Watchman	7/ per day	Discharged
18 "	Martin, Frank	Porter	7/6 per day	Discharged.
21 "	Long, Mary	Platform attendant	5/ per week	Resigned
23 "	Sykes, Kate	Platform attendant and gatekeeper	7/ per week	Discharged
24 "	Dwyer, John	Porter	7/6 per day	Discharged
SIGNAL AND INTERLOCKING ENGINEERS' BRANCH				
4 Nov	Alchin, Frank	Machinist	10/ per day	Retired
4 "	Bamborough, Mathew	Labourer	7/6 per day	Retired
CONTROLLER OF STORERS' BRANCH				
17 Nov	Dwyer, John	Labourer	6/ per day	Deceased

APPENDIX IV—*continued.*

Date.	Name.	Position.	Rate.	Remarks
TRAMWAYS—LOCOMOTIVE BRANCH.				
29 Nov.	Blanchard, John M	Clerk	£200 per annum	Deceased.
2 Dec.	Farrell, Reginald M	Shop boy	3/- per day . . .	Resigned.
4 ,,	Campbell, Mrs.	Office cleaner	15/- per week . .	Discharged.
22 ,,	Smith Thomas W.	Fireman	7/6 per day . . .	Resigned.
TRAMWAYS—TRAFFIC BRANCH				
13 Oct.	Johnson, Harrie	Senior conductor	9/- per day . . .	Discharged.
14 ,,	Carrick, John	Junior conductor	7/- per day . . .	Discharged.
29 ,,	Conn, John W.	Junior conductor	7/- per day . . .	Discharged.
10 Nov.	Kelly, James H.	Car cleaner	6/- per day . . .	Resigned.
19 ,,	Smiles, Richard	Senior conductor	9/- per day . . .	Discharged.
26 ,,	Patterson, Henry E.	Lamp trimmer	5/- per day . . .	Discharged.
10 Dec.	Antoine, Joseph, jun.	Junior conductor	5/- per day . . .	Discharged.
15 ,,	Rogers, William	Junior conductor	6/- per day . . .	Resigned.
30 ,,	Harkness, Charles	Gripman	8/- per day . . .	Discharged.
30 ,,	Gardner, William	Senior conductor	9/- per day . . .	Discharged.

Sydney: William Applegate Gullick, Government Printer.—1898.

[6d.]

1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

RAILWAYS AND TRAMWAYS.

(REPORT OF RAILWAY COMMISSIONERS, QUARTER ENDING 31st MARCH, 1898.)

Presented to Parliament, pursuant to Act 51 Vic. No. 35, sec. 44.

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

Offices of the Railway Commissioners of New South Wales,
Sydney, 26th April, 1898.

To THE HONORABLE THE MINISTER OF RAILWAYS,—

Sir,

In accordance with the provisions of the 44th clause of the Railway Act of 1888, 51 Vic. No. 35, we have the honor to submit, for the information of Parliament, our Report, for the quarter ending 31st March, 1898, upon the subjects specified, viz. :—

I.—STATE OF THE TRAFFIC.

RAILWAYS.	Quarter ending 31st March, 1897.	Quarter ending 31st March, 1898.
Miles open	2,576½	2,691
Revenue ... {		
1897. 1898.		
Passenger ... £285,903 £296,991	£692,018	£717,688
Merchandise... £106,115 £420,697		
Expenditure	£376,923	£390,999
Train miles run	1,954,972	2,030,989
Earnings per train mile	7s. 1d.	7s. 0¾d.
Expenditure per train mile	3s. 10¼d.	3s. 10¼d.
Percentage—Expenditure to earnings	54.47	54.48
Number of passengers	5,614,666	5,768,074
Tonnage of goods traffic	1,080,986	1,100,474
Tonnage of live stock traffic	46,127	39,078

TRAMWAYS.	Quarter ending 31st March, 1897.	Quarter ending 31st March, 1898.
Miles open	62½	62½
Revenue	£78,060	£79,964
Expenditure	£56,612	£61,626
Tram miles run	779,129	805,241
Earnings per tram mile	2s.	1s. 11¾d.
Expenditure per tram mile	1s. 5¼d.	1s. 6¼d.
Percentage—Expenditure to earnings	71.75	77.06
Number of fares collected	18,459,834	18,876,523

II.—CONDITION OF THE LINES.

A report as to the condition of the lines will be found as an Appendix, page 4.

III.—SPECIAL RATES.

A statement of the special rates, and the reasons for making the same, will be found attached, page 4.

IV.—STAFF.

These returns are given as an Appendix, pages 5 to 7.

RAILWAYS.

GENERAL REMARKS.

The earnings for the quarter show an improvement of £25,670 over the corresponding quarter of last year; a result particularly satisfactory in view of the fact that the March quarter of 1897 gave an increase of £43,036 over the corresponding period in 1896.

The following contributed to the increase for the quarter, viz.:—Second-class passengers, £9,619; general merchandise, £13,675; grain and flour, £23,121; minerals (other than coal and coke), £2,446; miscellaneous, £1,582.

Live-stock decreased £15,582; wool, £8,059; coal and coke, £828; hay, straw, and chaff, £226; first-class passengers, £78.

For the increased revenue, 153,408 additional passenger journeys were made.

The grain and flour traffic shows a large increase, 40,117 tons; and minerals (other than coal and coke), 26,124 tons. Coal and coke traffic shows a decrease of 35,022 tons; live stock, 7,049 tons; wool, 1,703 tons; and although general merchandise shows a net decrease of 10,028 tons, much of the traffic was carried longer distances, and thus produced an increased revenue of £13,675.

Owing to 76,017 additional train miles having to be run to work the additional traffic, the expenditure increased £14,076.

The total working expenses for the quarter represent 54·48 per cent. of the gross earnings, as compared with 54·47 per cent. in the corresponding period last year.

The following new lines were opened during the quarter, viz.:—Nevertire to Warren, 12 miles 33 chains, opened 1st January, 1898; Bogan Gate to Condobolin, 39 miles 22 chains, opened 1st March, 1898.

CONDITION OF LINES AND ACCOMMODATION FOR THE TRAFFIC.

The lines are in good working order. A fair amount of relaying, resleepering, and reballasting has been done, and where necessary additional facilities provided for dealing with the traffic.

'TRAMWAYS.

GENERAL REMARKS.

The earnings have increased £1,904, and the working expenses £5,614; the large increase in the expenditure is owing to the additional traffic and the continued increase in the cost of fuel, owing to the large demand for coke in other directions.

We have the honor to be,

Sir,

Your most obedient servants,

CHARLES OLIVER,
Chief Commissioner.

W. M. FEHON,
Commissioner.

DAVID KIRKCALDIE,
Commissioner.

APPENDIX I.

NEW SOUTH WALES GOVERNMENT RAILWAYS.

Report on Condition of Permanent Way and Works for the Quarter ending
31st March, 1898.

Sir, Office of Engineer-in-Chief for Existing Lines, 2 April, 1898.

I have to report, for the information of the Commissioners, that the permanent way and works have been efficiently maintained during the past quarter.

Satisfactory progress has been made with relaying, resleepering, and reballasting operations.

The duplication between Blackheath and Mt. Victoria has been completed and brought into use.

Grade improvements have been completed between Jindalee and Cootamundra, between Bethungra and Illabo, and between Blayney and Millthorpe. Good progress has also been made with similar works between Millthorpe and Orange, on the Western Line; at Frampton, on the Southern Line; and between Old Junee and Coolamon, on the South-western Line.

The following extensions (pioneer lines) were opened for traffic during the quarter:—

Nevertire to Warren, 12 miles 33 chains, on 1st January.

Bogan Gate to Condobolin, 39 miles 22 chains, on 1st March.

I have, &c.,

THOMAS R. FIRTH,

Engineer-in-Chief for Existing Lines.

The Secretary to the Railway Commissioners.

APPENDIX II.

NEW SOUTH WALES GOVERNMENT RAILWAYS.

STATEMENT, in accordance with clause No. 44 of the Railway Act, showing the Special Rates which have been made, and the reasons for making such rates, quarter ending 31st March, 1898.

Article.	Rate.	Reason for rate.
Bacon traffic	Nowra to Sydney, 12s. per ton in loads of not less than 4 tons per truck, and provided not less than 2 trucks are sent each week.	To encourage traffic.
Ice	A rate actual weight when used for cooling beer, Sydney to Newcastle, on condition that truck loads of not less than 6 tons per 4-wheeled truck (beer and ice combined) are carried.	do
Keepit	1st class rates and conditions	New article (unclassified).
Paper and paper bags	In truck loads from Liverpool to Newcastle, "A" rates for further period of twelve months.	To encourage traffic.
Wheat	From Northern Line stations to Granville to be charged at the through up journey rate from starting point to destination.	do
Magic wool-wash ..	"B" rates and conditions	New article in classification.
Novo	1st class rates and conditions	do
Soy	3rd class rates	do
Tins (new empty baking powder).	"B" rates and conditions	New rate.
Coal.....	Charge for departmental engine running from Junction between East Maitland and Farley to East Greta Colliery, 1d. per ton on the coal hauled.	do
Drapery in furniture vans to Newcastle.	Sydney to Newcastle, 1st class rates on down journey and "B" rates for empty vans on up journey.	To secure traffic.
Gravel, metal, screenings, and sand.	Emu Plains to Sydenham, 3s. per ton; Emu Plains to Tempe, 3s. 1d. per ton.	do
Mineral water tanks (not exceeding 10 gals.)	Returned empty—free	To equalise rates.
Pork, beef, &c.	In tierces in up transit—"A" rates and conditions.....	To adjust rates.
Pipes (iron)	For Moree Municipal Council—in truck loads from Darling Harbour. If traffic is forwarded in 6 tons per 4-wheeled waggon when trucks are being worked to Moree empty, a reduction of 10 per cent. on ordinary rates to be allowed.	To secure traffic.
Wool	Rate of £4 3s. 8d. per ton for undumped scoured wool from Condobolin to Sydney from squattages that lie to the west of or are intersected by the 145th meridian of longitude.	To adjust rates.

APPENDIX III

NEW SOUTH WALES GOVERNMENT RAILWAYS AND TRAMWAYS.

RETURN, in accordance with clause 44 of the Railway Act, showing the Appointments of Employees from the 1st January to the 31st March, 1898.

Date.	Name	Position	Rate	Remarks
1897				
ENGINEER IN CHIEF FOR EXISTING LINES BRANCH				
31 Dec 1898	Shannon, Thomas	Labourer	6/6 per day	Vice A Reid
6 Jan	Lane, Francis	Labourer	6/6 per day	Vice W Baiton
11 "	Lowe, William	Labourer	6/6 per day	Vice M Mulholland.
14 "	Mulheron John	Labourer	6/6 per day	Vice M Ryan
24 "	Leary, John	Labourer	6/6 per day	Vice C Knight
28 "	McDonald, Donald	Office boy	2/ per day	Vice E Russell
28 "	Kibble Robert	Labourer	6/6 per day	Vice P Innes
31 "	Regan Michael	Labourer	6/6 per day	Vice J Gamfield
31 "	Neal, William	Labourer	6/6 per day	Vice R Harris
3 Feb	Meehan, Charles	Labourer	6/6 per day	Vice C King
7 "	Peterson, Alfred	Labourer	7/6 per day	Vice J Power
7 "	O'Brien, James	Labourer	6/6 per day	Vice W Dunsmore
17 "	Watson, Samuel	Labourer	6/6 per day	Vice J Ryan
18 "	Doohan, John	Labourer	6/6 per day	Vice G Bonner
21 "	Godfrey, George	Labourer	6/6 per day	Vice T Mannix
23 "	Stanford, William	Labourer	6/6 per day	Vice J Bret
25 "	O'Brien, Bartholomew	Fettler	6/6 per day	Vice C O'Brien
25 "	Codling, George	Labourer	6/6 per day	Vice A Munro
25 "	Rootes, John	Labourer	6/6 per day	Vice J Jones
1 Mar	Murray, William	Labourer	6/6 per day	Vice J Brennan
2 "	Henderson Joseph	Labourer	6/6 per day	Vice L Hawke
7 "	Hodges, Edward	Labourer	6/6 per day	Vice J Barker
7 "	Martin, John	Labourer	6/6 per day	Vice I Sutton
8 "	Hartigan, William	Labourer	6/6 per day	Vice R Wilkinson.
8 "	Jeffery, Richard	Labourer	6/6 per day	Vice R Jaques
10 "	Wilson, Michael	Labourer	6/6 per day	Vice M Mahoney
21 "	Brown David	Labourer	6/6 per day	Vice J Ross
28 "	Piggott Samuel	Labourer	6/6 per day	Vice O Miller
CHIEF MECHANICAL ENGINEER'S BRANCH				
6 Jan	Fellows, William	Shop boy	2/ per day	Vice L Goodson
10 "	Ward, William	Cleaner	5/ per day	New opening Warren
13 "	Rees, Thomas	Striker	6/8 per day	Vice J Cennin
13 "	Gateley, Albert	Boilermaker's assistant	6/8 per day	Vice J Courtney
15 "	Pitton, John	Fitter	9/6 per day	Vice R Angus
21 "	Armstrong, Arthur	Labourer	6/6 per day	Vice J Glynn
25 "	Gapes Richard	Shop boy	2/ per day	Vice I Gray
25 "	Munro, Charles	Hammer boy	2/6 per day	Vice W White
28 "	Mithrasen Frederick	Hammer boy	2/6 per day	Vice A Jones
3 Feb	Gilmour David	Fuelman	6/6 per day	Vice I Bruce
1 "	Brooke, Arthur	Fuelman	6/6 per day	Vice I Clarke
15 "	Wyles James	Cleaner	5/6 per day	Transferred from Extra Staff
22 "	Clark, Thomas	Labourer	6/6 per day	Vice C Graves
24 "	Olsen Hans	Over	6/6 per day	Vice J Palmer
CHIEF TRAFFIC MANAGER'S BRANCH				
17 Dec 1898	Bennett, Mrs Samuel	Gatekeeper	1/10c house	Vice Mrs C Bennett
3 Jan	McLean, John	Telegraph probationer	2/6 per week	Vice I Lyons
5 "	Burt, Arthur	Telegraph probationer	2/6 per week	
7 "	Clarke, William	Probationer	10/ per week	Vice T Winsor
7 "	Johnson, Ernest	Telegraph probationer	2/6 per week	Vice J Devcr
7 "	Burns, Ellen	Gatekeeper	Free house	Vice E Woods
7 "	Toole, Martin	Telegraph probationer	2/6 per week	
10 "	Seyers, Elizabeth	Platform attendant	5/ per week	Vice M Long
11 "	Clarke, Kate	Gatekeeper	7/ per week	Vice A McKervoy
17 "	Dallmore, Clement	Telegraph probationer	2/6 per week	
17 "	Paull, William	Telegraph probationer	2/6 per week	Vice S Beer
17 "	Richings, John	Junior porter	2/6 per day	Vice J Matthews
19 "	Moore, Richard	Junior porter	2/6 per day	Vice G Henry
19 "	Meehan, Edward	Telegraph probationer	2/6 per week	Vice J Dwyer
20 "	Foster, Emma	Platform attendant and house	15/ per week	Vice M Pollent
21 "	Roche, Matthew	Office lad	10/ per week	Vice L Fishburn
21 "	Corry, William	Telegraph probationer	2/ per week	New opening Condobolin
21 "	Tomkins, Ellen	Barack attendant	10/ per week	Vice A Smith
25 "	Ferguson, Colin	Telegraph probationer	2/6 per week	
28 "	Hullihy, Sarah	Gatekeeper	7/ per week	
28 "	Lonz, Budget	Gatekeeper	7/ per week	Vice I Barry
1 Feb	Confoy, Patrick	Telegraph probationer	2/6 per week	Vice R Smith
4 "	Clayton, James	Telegraph probationer	2/6 per week	New opening Warren
4 "	Kimble, Mary	Gatekeeper	1/10c house	Vice J Edginton
4 "	Can't Sarah	Gatekeeper	7/ per week	Vice L Marshall
9 "	Drummond John	Telephone boy	10/ per week	Vice I Morgan
9 "	Kingdom Sarah	Gatekeeper	7/ per week	Vice H Goodhew
11 "	Buff, George	Telephone boy	10/ per week	Vice H McEmman
17 "	Sayer, William	Telephone boy	10/ per week	Vice C Spencer
22 "	Coaghlin Patrick	Telephone boy	10/ per week	Vice A Weldon
15 "	McKay, William	Junior porter	3/4 per day	New opening, Condobolin
19 "	Gahm, Helma	Postal assistant	10/ per week	
19 "	Outred, Francis	Telegraph probationer	2/6 per week	Vice R Hunt
21 "	Spence, Horace	Junior porter	2/6 per day	Vice A Christison
25 "	Murray, Martha	Gatekeeper	Free house	Vice M Bowe
25 "	Smith, Jane	Gatekeeper	7/ per week	Vice A Thomas
28 "	McNuff, James	Gatekeeper	7/ per week	Vice Mrs A Baker
1 Mar	Lewis, Mrs Elizabeth	Gatekeeper	7/ per week	Vice M Goodwin
3 "	Chiu, John	Telephone boy	2/6 per week	Vice W Williams
4 "	Litzpatrick, John	Telegraph probationer	2/6 per week	Transferred from Extra Staff
4 "	Stokes, Kate	Platform attendant and gatekeeper	7/ per week	
14 "	Clarke, Sarah	Gatekeeper	Free house	Vice M McGlynn
14 "	Tansey, Catherine	Barack attendant	7/6 per week	Vice A Dogger
18 "	Yandell, Margaret	Gatekeeper	7/ per week	
18 "	Dudley, Edward	Telegraph probationer	2/6 per week	
18 "	Hicks, Edith	Gatekeeper	Free house	Vice A Bewis
19 "	Burrell, Alfred	Gatekeeper	15/ per week	Vice H Johnston
25 "	Bullock, Amie	Gatekeeper	7/ per week	Vice S Kingdom
28 "	Jones, David	Telegraph probationer	2/6 per week	Vice J Dingwall
1898				
SIGNAL AND INTERLOCKING ENGINEER'S BRANCH				
28 Jan	Webber, Thomas	Painter	7/6 per day	Vice F Shurey
ELECTRICAL ENGINEER'S BRANCH				
4 Jan	Butler, Vivian C S	Telegraph probationer	2/6 per week	Vice C Williams
14 Mar	Sullivan, William G	Telegraph probationer	2/6 per week	

APPENDIX III—continued.

Date.	Name.	Position.	Rate	Remarks.
1897.				
TRAMWAYS—LOCOMOTIVE BRANCH				
14 Jan	Wright, Joseph P	Cleaner	4/6 per day	Vice W. Hadaway.
3 Feb	Helm, Francis J.	Shop boy	2 per day	Vice G. Simpson.
11 "	McKinnlay, Allen	Cleaner	5/6 per day	Vice E. Maxwell.
11 "	King, William J	Cleaner	5/6 per day	Vice A. B. Brown.
18 "	Tiley, Frank T	Shop boy	2/- per day	Vice J. Sheidan.
19 "	Smith, Thomas W	Fireman	7/6 per day	Re-employ ed.
11 Mar	Boyd, Arthur	Cleaner	4/6 per day	Vice A. Lancaster.
1898				
TRAMWAYS—TRAFFIC BRANCH				
28 Jan.	Muir, William H	Junior conductor	6 - per day	Vice C. Harkness
2 Feb	Claridge, John H.	Junior conductor	6 - per day	Vice T. Crook.
2 "	Aubrey, Henry J	Junior conductor	6/- per day	Vice B. O'Connor.
3 "	Jeffery, Zachariah	Car cleaner	6/ per day	Vice T. Hughes
7 "	Fulton, William J	Point cleaner	6 - per day	Vice W. Rogeis
8 "	Bradney, Herbert L.	Junior conductor	6 per day	Vice J. Vincentz.
18 "	Doran, Joseph	Junior conductor	6/ per day	Vice A. J. Watts
1 Mar	Wright, Edward	Junior conductor	6 per day	Vice J. Faubann
1 "	Edwards, Frederick	Junior conductor	6/ per day	Vice A. Croall.
1 "	Middleton, Herbert	Conductor	6,6 per day	Vice W. Morse
TRAMWAYS—MAINTENANCE BRANCH.				
14 Jan.	Nichols, Percy S	Tool collector	2 per day	Vice C. Fulton.

APPENDIX IV.

NEW SOUTH WALES GOVERNMENT RAILWAYS AND TRAMWAYS.

RETURN, in accordance with clause No. 44 of the Railway Act, showing the Removals of Employees from the 1st January to the 31st March, 1898.

Date	Name.	Position	Rate	Remarks
1898				
SECRETARY'S BRANCH				
18 Jan	O'Brien, Michael A	Clerk	£320 per annum	Retachment
ENGINEER IN CHIEF FOR LEASING LINES BRANCH				
4 Jan	Dunsnoote, William	Fitter	7/6 per day	Retired
8 "	Innes, Peter	Labourer	7/6 per day	Retired
2 "	Russell, Edward	Office boy	3/ per day	Discharged
13 "	Mumfo, Arthur	Labourer	7/6 per day	Retired
14 "	Fox, William	Flagman	6,6 per day	Retired
17 "	Mannix, Thomas	Ganger	9/ per day	Discharged
17 "	Callett, Robert	Fettler	7/6 per day	Retired
19 "	Bieman, John	Ganger	8/6 per day	Deceased.
10 "	Knight, Charles	Fettler	7/6 per day	Retired
20 "	Ryan, John	Fettler	7/6 per day	Retired
24 "	Jones, John	Fettler	7/6 per day	Deceased
27 Feb.	Sutton, Frederick	Fettler	7/6 per day	Retired
1 "	Doggett, William	Fettler	7/6 per day	Retired
15 "	Wilkinson, Richard	Ganger	9/- per day	Discharged.
17 "	Barker, Josiah	Fettler	7/6 per day	Deceased
19 "	Mahoney, Michael	Fettler	7/6 per day	Retired
13 "	Bonner, George	Labourer	7/6 per day	Retired
24 "	Jaques, Richard	Fettler	7/6 per day	Retired
24 "	O'Brien, Charles	Fettler	7/6 per day	Retired
28 "	Douchan, Patrick	Ganger	9/ per day	Retired
23 Mar	Miller, Oliver	Labourer	6,6 per day	Resigned.
CHIEF MECHANICAL ENGINEER'S BRANCH				
6 Jan	Clarke, Edward	Cleaner	7/ per day	Deceased
14 "	O'Brien, Charles	Apprentice	10d per day	Resigned
21 "	Bruce, Edward	Fuelman	6,6 per day	Resigned
24 "	Perman, John	Carriage examiner	8/ per day	Written off books
25 "	Groves, Charles	Labourer	7 per day	Discharged
3 Feb	Small, John	Carriage builder	10 per day	Resigned
9 "	Tighe, Charles	Carpenter	10 per day	Deceased
12 "	Williamson, Henry	Boiler maker's assistant	7/6 per day	Written off books
28 "	Guthrie, Moreton	Blacksmith	10 per day	Retired
15 Mar	Nimmo, James	Wagon builder	10 per day	Written off books
31 "	Caithness, William	Fitter	10 8 per day	Deceased
1897				
CHIEF TRAFFIC MANAGER'S BRANCH				
18 Dec	Bennett, Mrs Catherine	Gatekeeper	Free house	Resigned.
1898				
3 Jan.	Smith, Adeline	Burack attendant	10/ per week	Resigned
4 "	Reel, Samuel	Night officer	£150 per annum	Resigned
6 "	Woods, Elizabeth	Gatekeeper	Free house	Resigned.
7 "	McKevoy, Anne	Gatekeeper	7 per week	Resigned
13 "	Morgan, John E.	Clerk	£150 per annum	Deceased
20 "	Morahan, Alfred	Junior porter	4/2 per day	Resigned
20 "	Pollent, Mary Ann	Platform attendant	10 per week	Discharged
21 "	Christison, Alexander	Porter	7/6 per day	Resigned
28 "	Barry, Ellen	Gatekeeper	7 per week and house	Resigned
28 "	Goodhew, Henry	Gatekeeper	7/ per week	Resigned
3 Feb.	McLennan, Herbert	Junior porter	3 4 per day	Discharged
3 "	Weldon, Albert	Junior porter	5/ per day	Resigned
3 "	Marshall, Elizabeth	Gatekeeper	7 per week	Resigned
4 "	Edginton, Jeanette	Gatekeeper	Free house	Resigned
5 "	Spencer, Charles	Junior porter	3/4 per day	Discharged.
10 "	McLean, Angus	Traffic inspector	£210 per annum	Deceased
21 "	Goodwin, Mary	Gatekeeper	7/ per week	Resigned
25 "	Bowe, Matilda	Gatekeeper	Free house	Resigned
25 "	Thomas, Annie	Gatekeeper	7/ per week	Resigned
1 Mar	Baker, Mrs Annie	Platform attendant	5 per week and house	Discharged.
3 "	Williams, Walter	Ticket collector	7/6 per day	Discharged.
7 "	Taylor, Joseph	Gatekeeper	15/ per week	Discharged.
5 "	Johnston, Harold	Junior porter	5/ per day	Resigned
12 "	Sheehan, James	Porter in charge	40 per week	Resigned
12 "	Dogget, Agnes	Burack attendant	7/6 per week	Resigned
13 "	McGlynn, Mary	Gatekeeper	7/6 per week and house	Resigned.

APPENDIX IV—continued.

Date	Name	Position	Rate	Remarks
1898				
CHIEF TRAFFIC MANAGER'S BRANCH <i>continued</i>				
14 Mar	Beavis, Arnie	Gatekeeper	Free house	Resigned
21 "	Ogle, John	Jamp trimmer	6/6 per day	Retired
21 "	Newman, James	Porter	7/6 per day	Deceased
21 "	McGhee, Effena	Gatekeeper	1 rec house	Resigned
23 "	Ogle, Mrs Mary	Gatekeeper	7/6 per week and house	Resigned
23 "	Alt, James	Officer in charge	£161 per annum and house	Retired
25 "	Kingdom Sarah	Gatekeeper	7/ per week	Resigned
28 "	Horne, Maria	Gatekeeper	1 rec house	Resigned
31 "	Verdon, Arthur	Inspector	£300 per annum	Retrenchment
31 "	Dingwall, John	Porter	10/ per day	Retired
31 "	Farquhar, George	Station master	£330 per annum and house	Retired
TRAMWAYS—LOCOMOTIVE BRANCH				
1 Jan	Hadaway, William	Driver	12/ per day	Deceased
17 "	Simpson, George C	Shop boy	1/9 per day	Discharged
24 "	Maxwell, Edward	Driver	13/ per day	Resigned
3 Feb	Sheridan, John	Shop boy	4/ per day	Discharged
22 "	McGowan, Frederick E	Machinist	8/4 per day	Discharged
23 "	Owen, Norman	Driver	13/ per day	Discharged
24 "	Mathews, William J	Fireman	7/6 per day	Resigned
24 "	Brown, Albert B	Driver	14/ per day	Resigned
28 "	Lancaster, Alfred	Fireman	9/ per day	Resigned
17 Mar	Austen, Alfred	Fireman	7/6 per day	Discharged
TRAMWAYS—TRAFFIC BRANCH				
5 Jan	Cook, Thomas	Junior conductor	6/6 per day	Discharged
9 "	Vintzentz, Joseph	Junior conductor	6/6 per day	Deceased
14 "	Hughes, Thomas	Junior conductor	6/ per day	Discharged
27 "	Moise, William J	Conductor	7/ per day	Discharged
29 "	Croall, Arthur	Junior conductor	6/ per day	Discharged
29 "	O Connor, Bartholomew	Junior conductor	6/ per day	Discharged
2 Feb	Watts, Alfred J	Senior conductor	9/ per day	Resigned
19 "	Fairbairn, John	Junior conductor	6/ per day	Discharged
10 Mar	McGrath, John J	Conductor	6/6 per day	Discharged
23 "	Duckworth, Thomas	Senior conductor	9/ per day	Discharged
28 "	Fisk, Edgwa . . .	Junior conductor	7/ per day	Discharged
28 "	Miller, Ernest C	Junior conductor	6/ per day	Discharged
31 "	Skinner, Benjamin	Senior conductor	9/ per day	Resigned
TRAMWAYS—MAINTENANCE BRANCH				
22 Mar	Ryan, Matthew	Labourer	7/6 per day	Resigned

[6d.]

1898.

—
 LEGISLATIVE ASSEMBLY.
 NEW SOUTH WALES.

PARLIAMENTARY STANDING COMMITTEE ON
 PUBLIC WORKS.

REPORT

TOGETHER WITH

MINUTES OF EVIDENCE AND PLAN,

RELATING TO THE

PROPOSED RAILWAY

FROM

WARREN TO COONAMBLE.

Presented to Parliament in accordance with the provisions of the Public Works Act,
 51 Vic. No. 37.

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

SYDNEY: WILLIAM APPLGATE GULLICK, GOVERNMENT PRINTER.

MEMBERS OF THE COMMITTEE.

LEGISLATIVE COUNCIL.

The Honorable FREDERICK THOMAS HUMPHERY, Vice-Chairman.
 The Honorable JAMES HOSKINS.
 The Honorable CHARLES JAMES ROBERTS, C.M.G.
 The Honorable WILLIAM JOSEPH TRICKETT.
 The Honorable DANIEL O'CONNOR.

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MEMBERS OF THE SECTIONAL COMMITTEE.

THOMAS THOMSON EWING, Esquire, Chairman.
 The Honorable CHARLES JAMES ROBERTS, C.M.G.
 THOMAS HENRY HASSALL, Esquire.

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Railway from Warren to Coonamble.—Sketch to accompany the Report of the Sectional Committee.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

RAILWAY FROM WARREN TO COONAMBLE.

REPORT.

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS, appointed during the first Session of the present Parliament, under the Public Works Act of 1888, 51 Vic. No. 37, the Public Works Act Amendment Act of 1889, 52 Vic. No. 26, and the Public Works (Committees' Remuneration) Act of 1889, 53 Vic. No. 11, to whom was referred the duty of considering and reporting upon "the expediency of constructing a line of Railway from Warren to Coonamble," have, after due inquiry, resolved that it is not expedient the proposed Railway should be carried out, but they recommend that a survey be made of a route for a railway from Dubbo to Coonamble, as shown approximately on a sketch accompanying the Sectional Committee's Report; and, in accordance with the provision of sub-section IV, of clause 13, of the Public Works Act, report their resolution to the Legislative Assembly:—

DESCRIPTION OF THE PROPOSED RAILWAY.

1. The proposed railway is an extension of the line from Nevertire to Warren, and is 63 miles 33 chains in length. It commences at a point 353 miles 33·30 chains from Sydney, crossing the Macquarie River at the north-west end of the township of Warren, and, then, after joining the main road to Coonamble 2 miles further on, it runs for 42 miles in a north-easterly direction, mainly within a travelling-stock reserve. Then, leaving the reserve, it proceeds direct to Coonamble, where it ends on the western side of the township and of the Castlereagh River, in a temporary common, 416 miles 66 chains from Sydney.

The line is not taken into the town, because to do so would involve the expense of a bridge over the Castlereagh, a work not considered necessary, as the road bridge across the river is close to the town, and the site of the terminal station is about 20 or 25 chains from the bridge, and 50 or 60 chains from the centre of the town.

To all intents and purposes the railway is a surface line, the rail-level being from 6 to 18 inches above the surface; the ruling grade is 1 in 100; and the curves are easy. It is proposed that the line shall be almost entirely without ballast, and, except where absolutely necessary, unfenced, but cattle stops will be provided where required.

ESTIMATED COST.

2. The estimated cost of the railway, exclusive of land and compensation, is £150,000, or £2,365 per mile, made up as follows:—Earthworks, £12,504; timber bridges and small timber openings, £9,025; steel bridge over the Macquarie River, £6,000; level crossings, cattle stops, and fencing, £2,555; permanent way material, £40,007; freight, £10,137; plate laying, ballasting, and sleepers, £34,596; station works and station buildings, £13,960; water supplies, telegraph, mileage and gradient posts, and miscellaneous, £4,552; and engineering and contingencies, £16,664.

This estimate, the Engineer-in-Chief for Railway Construction regards as ample.

RAILWAY

RAILWAY COMMISSIONERS' REPORT.

3. The Railway Commissioners report favourably on the railway, and their estimates of annual cost and traffic show a balance of £316 on the credit side. Interest on the capital expenditure, calculated at $3\frac{1}{4}$ per cent., amounts to £4,875; and the estimated cost of maintaining the permanent way, and for traffic and locomotive expenses, is set down at £4,900, or together £9,775. The traffic estimate is £10,091; made up of £6,623 for goods, live stock, and agricultural produce, £2,700 for passenger traffic, and £768 for mails.

The opening of the railway, the Commissioners say, "would be of great benefit to the district, and as the line will become the channel which stock and produce of various kinds, now drifting down the Merri Merri and Marthaguy Creeks to the railway system of the Colony at Nevertire and Dubbo, would pass," they think the construction of the line is thoroughly justified.

OTHER ROUTES TO COONAMBLE.

4. Connected with the subject of the proposed railway is the question whether Warren is the proper starting-point of a line to Coonamble; and the Committee have found it necessary to consider two other routes—one from Dubbo, and the other from Mudgee.

LINE FROM DUBBO TO COONAMBLE.

5. The line from Dubbo, according to a survey made by the Railway Construction Department, is 93 miles 45 chains in length, and is estimated to cost £207,285, or £2,215 per mile.

It begins by a back-shunt junction east of Dubbo Railway Station, at 277 miles 49·054 chains from Sydney, and, passing to the west of the hospital, takes a northerly course parallel with the general direction of the Macquarie River, and up to the crossing of its tributary the Talbragar River. Thence it proceeds west of the village of Brocklehurst, and the main road to Coonamble, as far as 285 miles, near which point Sandy Creek is crossed, and further on Moriguy Creek. Beyond this creek, which is followed up to 293 miles from Sydney, the ironbark range or divide between Talbragar and Coolbaggie Creeks is passed over. The line then inclines more to the westward, until the Coolbaggie Creek is crossed at 298 miles 32 chains, from which point it again becomes more northerly, the east side of the Drillwarrina Creek being taken, and the main road from Dubbo to Coonamble crossed at 303 miles 50 chains, and the watersheds between Coolbaggie and Marthaguy Creeks at 305 miles 33 chains. A north-north-west bearing is taken from 308 miles, the Marthaguy Creek being crossed at 314 miles 73 chains, and Gilgandra township passed about 5 miles to the east. At 329 miles the line becomes generally parallel with the Castle-reagh River, which is about 2 miles to the east, falling with the line. The Warren to Coonamble road is crossed at 355 miles 10 chains; and from 365 miles 14 chains the survey is common with that from Warren, the line terminating at 371 miles 14·418 chains as explained in the description of the Warren route.

Except for some work near Dubbo, the line is regarded as nearly a surface one, and the bridge work upon it is light. The ruling grade is 1 in 75, but this is only required at the Dubbo end; the remainder of the route is flat. The sharpest curve is 20 chains radius.

LINE FROM MUDGEE TO COONAMBLE.

6. The line from Mudgee is 147 miles in length, and is estimated to cost £478,936, or £3,258 per mile. It is described as moderately undulating for about 36 miles, and from that point, as the ranges are crossed, and up to 117 miles from Mudgee, it varies from fairly light to ridgy. Thence to Coonamble it is a surface line.

It begins at 189 miles 13·15 chains from Sydney, and for about 8 miles runs close to the main road. The Cudgegong River is crossed at $197\frac{3}{4}$ miles, and Gulgong is reached, on the west side of the town, at 208 miles. From Gulgong the line proceeds

proceeds in a north by west direction, crossing Wyaldra and Tallawang Creeks, after which the Goodiman Range is surmounted at $223\frac{3}{4}$ miles. At $235\frac{1}{2}$ miles Cobbora is passed at a distance of about $2\frac{1}{2}$ miles to the south-west, where the Talbragar is crossed. At $243\frac{1}{4}$ miles the Wallaroo Range is passed over, and 14 miles further on the surveyed line from Dubbo to Werris Creek is intersected. Mundooran township is passed on the south side at $255\frac{3}{4}$ miles, and at 260 miles the Castlereagh River is bridged. Twelve miles further the Wallamburrawang Range is crossed, and a creek of the same name at $279\frac{1}{4}$ miles. For the last 40 miles of the route the line is generally straight, Coonamble being reached on the east side of the Castlereagh River, 336 miles 7.78 chains from Sydney. The ruling grade on this route is 1 in 80.

Other routes by which Coonamble could be connected with the railway system of the Colony are referred to in the evidence given before the Committee, but the three above described have the most to recommend them.

COMPARISON OF THE THREE ROUTES.

7. The difference in length of line, distance from Sydney, ruling grade, and estimated cost of the three routes is shown in the following comparison :—

Line.	Length of line.		Distance from Sydney.	Ruling grade.	Estimated total cost.			Estimated cost per mile.		
	miles	chains			miles.	One in	£	s.	d.	£	s.	d.
Warren to Coonamble	63	32.71	417	100	150,000	0	0	2,365	12	0
Dubbo to Coonamble	93	45	371	75	207,285	0	0	2,215	9	6
Mudgee to Coonamble	147	0	337	80	478,936	0	0	3,258	0	0

These figures indicate that while the length of the line from Warren is shorter than that from Dubbo by 30 miles, and than that from Mudgee by 84 miles, the distance to Coonamble from Sydney by way of Warren is 46 miles longer than by way of Dubbo, and 80 miles longer than by way of Mudgee. In grade, the Warren line is the best, and in total cost the estimate for its construction is the less by £57,285 as compared with the Dubbo line, and by £328,936 compared with the line from Mudgee; but in cost per mile, it is slightly more expensive than the line from Dubbo.

QUESTION OF AN EXTENSION TO WALGETT.

8. In their examination of the official witnesses who gave evidence in Sydney, the Committee endeavoured to ascertain as far as possible the merits of each of the three routes to Coonamble, and also whether connecting Coonamble with the Great Western Railway implied a future extension from Coonamble to Walgett. In the evidence of the Secretary to the Railway Commissioners, and that of the Chief Traffic Manager, these matters will be found very closely dealt with; and it will be seen that, so far as the Railway authorities are concerned, no idea is at present entertained of extending the railway system to Walgett by any route, and that traffic from around Walgett is regarded by them as more likely to find its way to the North-western railway system than to go to the Great Western Railway through Coonamble. But, apart from this, the Committee are of opinion that the question of a railway to Walgett will be more profitably considered in connection with other railway proposals referred to them for inquiry.

SECTIONAL COMMITTEE'S REPORT.

9. Following up the examination of witnesses by the full Committee, a Sectional Committee inspected the route of the proposed line from Warren, and also the surveyed routes from Dubbo and Mudgee, and took local evidence at those places and at other centres in the district.

The Sectional Committee report in favour of the route from Dubbo to Coonamble. Finding

Finding that most of the statements made before the full Committee with regard to the productiveness of the Coonamble district and the possibilities of further development were borne out by the inspection made by them, they concluded that the question whether Coonamble and the district intervening between it and the Western railway system is entitled to railway communication was decided, and they set themselves to discover which was the best route by which a railway to Coonamble should be constructed.

The country between Warren and Coonamble, on the surveyed line, the Sectional Committee say, "is such that a great portion of it, in the immediate future, will furnish only pastoral produce for carriage on the railway"; whereas "a line from Dubbo towards Coonamble, as shown on a sketch accompanying the Sectional Committee's Report, would pass through a class of country in which agriculture is likely to be more extensive, and the rainfall more satisfactory, than would be the case along the line further west as proposed by the Department." The road from Dubbo to Gilgandra passes, speaking generally, they say, through a tract of inferior country; but this does not extend for any considerable distance to the west, and, in their opinion, if the line were located as on the sketch, "probably following the line as surveyed for a few miles, then turning to the west and keeping as direct a course as engineering necessities will permit, and not going too far west from Gilgandra to prevent the land in the vicinity of that place and to the east of it from participating in the benefit of railway communication," it would be the best calculated to serve all local conditions in connection with the development of the district.

Within 15 miles of this suggested line there are 594,000 acres of Crown land a large portion of which will be available at an early date. This Crown land the Sectional Committee say will be readily taken up.

Generally, the Sectional Committee contend "that a line from Dubbo can be located through land more suitable for agricultural settlement, and that a careful investigation should furnish a route through country in which there are no serious obstructions, so as to be in keeping with the cheapness necessary in the construction of lines for the development of our western country."

TRAFFIC ON THE DUBBO TO COONAMBLE LINE.

10. With regard to the question of traffic on a line from Dubbo to Coonamble, the Sectional Committee say it is probable that traffic reaching the Coonamble-Warren road to the south of Bullagreen will continue to go to Warren, even should the line from Dubbo be constructed, Bullagreen being about equidistant from Warren and the proposed line; but to compensate for this there will be the traffic from the country east of the Dubbo line, which should go far to make up the loss. As the line will be located in country much more suitable for agricultural pursuits, returns from it must eventually be considerably greater than can be expected from the Warren to Coonamble connection.

CONCLUSION WITH REGARD TO THE MUDGEES ROUTE.

11. The line from Mudgee to Coonamble did not commend itself to the Sectional Committee. Only very strong local reasons could justify the construction of a railway so costly as this would be, and these the Sectional Committee did not find. The mining returns from Gulgong, which is about 18 miles from Mudgee, are likely to improve, and the land in the vicinity and further west furnishes a considerable quantity of agricultural produce; but neither mining nor agricultural prospects appear to be sufficient to recommend the route from Mudgee to Coonamble as that which should be chosen.

THE COMMITTEE'S RECOMMENDATION.

12. From the results of the inquiry made by the Sectional Committee, and a due consideration of the evidence given in Sydney with reference to the routes by which a railway might be taken to Coonamble, the Committee have adopted the conclusion arrived at by the Sectional Committee, and recommend, as their report does, that a survey be made of the route shown approximately on the sketch accompanying their report, with a view to the construction of a railway from Dubbo to Coonamble.

The

The only matters that appear favourable to the adoption of the Warren to Coonamble proposal are the shorter length of line and the smaller total cost; but against these there are the considerably longer distance to Sydney and the inferiority of the route for settlement and production in comparison with that from Dubbo.

The decision of the Committee is contained in the resolution shown in the following extract from the Minutes of Proceedings of Tuesday, 26th April :—

Mr. C. J. Roberts moved,—‘That, in the opinion of the Committee, it is not expedient that the proposed Railway from Warren to Coonamble, as referred to the Committee by the Legislative Assembly, be carried out; but the Committee recommend that a survey be made of a route for a railway from Dubbo to Coonamble, as shown approximately on the sketch accompanying the Sectional Committee’s Report.’

Mr. Hassall seconded the motion.

Mr. Trickett moved,—‘That the motion be amended by the omission of all the words after the word “out.”’

The amendment was negatived on the following division :—

Ayes, 4.	Noes, 7.
Mr. Ewing,	Mr. Humphery,
Mr. Trickett,	Mr. Hoskins,
Mr. Clarke,	Mr. Roberts,
Mr. Lee.	Mr. Fegan,
	Mr. Black,
	Mr. Wright,
	Mr. Farnell.

The original motion was then passed unanimously.

THOS. EWING,
Chairman.

Office of the Parliamentary Standing Committee on Public Works,
Sydney, 29th April, 1898.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC
WORKS.

MINUTES OF EVIDENCE.

RAILWAY FROM WARREN TO COONAMBLE.

TUESDAY, 14 DECEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
The Hon. JAMES HOSKINS.
The Hon. CHARLES JAMES ROBERTS, C.M.G.
The Hon. WILLIAM JOSEPH TRICKETT.
The Hon. DANIEL O'CONNOR.
HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
JOHN LIONEL FEGAN, Esq.
THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.
FRANCIS AUGUSTUS WRIGHT, Esq.
FRANK FARNELL, Esq.

The Committee proceeded to consider the expediency of constructing a line of Railway from Warren to Coonamble.

Robert R. P. Hickson, Under Secretary and Commissioner for Roads, Department of Public Works, sworn, and examined:—

1. *Chairman.*] You have a statement to make? Yes.

This is an extension of the line at present being constructed from Nevertire to Warren, and its length is 63 miles 33 chains, the estimated cost is £150,000, or £2,366 per mile, exclusive of compensation.

The proposed line is a light railway, commencing at a point 353 miles 33·30 chains from Sydney, crossing the Macquarie River at the north-west end of the township of Warren. About 2 miles further on it adjoins the main road to Coonamble, and runs for 42 miles in a north-easterly direction, mainly within the travelling stock reserve.

The reserve is departed from at about 399 miles, and the line then goes direct to Coonamble, where it ends on the north-western side of the township, in the temporary common.

The ruling grade is 1 in 100, and easy curves are used.

The flying survey was commenced in September, 1892, and completed during 1893. No important developments took place until June, 1896, when the Railway Commissioners forwarded the following report:—

Office of the Railway Commissioners of New South Wales, Sydney, 23rd June, 1896.

Proposed Line of Railway from Warren to Coonamble—63 miles 33 chains.

In accordance with the provisions of the "Public Works Act of 1888," section 12, we beg to report as under:—

Cost of Construction—

The Engineer-in-Chief for Construction estimates the cost of construction of a single line of light railway (exclusive of land and compensation) at about £150,000

Annual Cost—

Capital expenditure, at 3½ per cent. £4,875
Estimated cost of maintaining permanent way, and for traffic and locomotive expenses 4,900

Total annual cost..... £9,775

Traffic Estimate—

Goods, live stock, and agricultural produce..... £6,623
Passenger traffic 2,700
Mails 768

Total annual revenue £10,091

The whole of the land along the proposed route of this railway is of a superior character. Much difficulty is experienced at the present time in getting produce to market, as in wet seasons the roads become almost impassable, and in dry weather there is a scarcity of feed on the road. Many of the holdings are 2,560 acres in extent, and the owners, who would frequently send small consignments of fat stock to market, are unable to do so because of the heavy charges that would have to be incurred for droving, as the expenses of droving small lots are practically the same as for large flocks.

The opening of the railway, therefore, would be of great benefit to the district; and as the line would become the channel through which stock and produce of various kinds now drifting down the Merri Merri and Marthaguy Creeks to the railway system of the Colony at Nevertire and Dubbo would pass, we think that the construction of the line is thoroughly justified.

The Common Seal of the Railway Commissioners of New South Wales was hereunto affixed this twenty-third day of June, one thousand eight hundred and ninety-six, in the presence of,

H. McLACHLAN.

{ E. M. G. EDDY,
Chief Commissioner.
CHARLES OLIVER,
Commissioner.
W. M. FEHON,
Commissioner.

* 1—A

On

R. R. P.
Hickson.

14 Dec., 1897.

R. R. P.
Hickson.

14 Dec., 1897.

On the 2nd July the Minister directed all papers to be prepared for submission to the Public Works Committee.

On the 22nd of the same month Mr. Macdonald, M.P., introduced a deputation to urge the extension of this line, pointing out that residents were anxious to leave the question of route entirely to the Department, and that the line would not compete with any future extension from Narrabri northward. The Minister expressed his sympathy with the object of the Deputation, and promised to submit the matter to his colleagues with a view to having the line referred to the Public Works Committee.

During the following year communications were received in support of the line from the Bullagreen and Coonamble Railway Leagues, and in opposition to it from the Newcastle Chamber of Commerce, which pointed out that the proposed line was likely to prejudice the interests of that port.

In July and September, 1897, the Minister replied in terms similar to those previously made use of to deputations which waited on him at Sydney and Coonamble respectively, stating in the last instance that in view of the fertility of the district and nature of the soil he preferred spending money on a light railway than on roads.

On the 9th December, 1897, the Minister moved in Parliament that the line should be submitted to the Public Works Committee. This motion was carried.

ROBT. HICKSON,
Under Secretary and Commissioner for Roads.

Since the map was previously before the Commission the proposed line from Warren to Coonamble has been shown upon it, and also the distances from Sydney, which are as follows:—From Sydney to Coonamble *via* Warren 417 miles, *via* Dubbo 371 miles, and *via* Mudgee 337 miles. The distance from Coonamble to Walgett is 67 miles, according to Mr. Jones' report. Therefore, the distance from Sydney *via* Warren and Coonamble to Walgett would be 484 miles, from Sydney *via* Dubbo and Coonamble to Walgett would be 438 miles, and from Sydney *via* Mudgee and Coonamble to Walgett 404 miles.

2. In deciding to take the railway from Warren to Coonamble, has the Department considered the rival lines *via* Dubbo and *via* Mudgee, and also whether it would be advisable to connect Coonamble on to the North-western railway? The Department has considered the first two proposals—*via* Dubbo, and Mudgee—but not the other.

3. Would you give us a statement with regard to these two lines, and the reasons why the Department determined to disregard them? I have a statement on the proposed lines from Dubbo and from Mudgee. I will take the line from Dubbo to Coonamble first.

The line begins by a back shunt junction east of Dubbo Station at 277 miles 49·54 chains from Sydney, and, passing to the west of the hospital, takes a northerly course parallel to the general direction of the Macquarie River, and, clearing its flood marks, up to the crossing of its tributary, the Talbragar River, at 281 miles 65 chains. The village of Brocklehurst is situated on its eastern side, and the main road to Coonamble adjoins at 283 miles on its eastern side, up to 285 miles. Sandy Creek is crossed at 285 miles 54 chains, and Mognigny Creek is then followed up to 293 miles, just beyond which the Ironbark Range or divide between Talbragar and Coolbaggie Creeks is passed over.

The line now inclines more westerly, and the latter creek is crossed at 298 miles 32 chains. The direction here again becomes more northerly, and the east side of Drillwarrina Creek is taken, the main road, Dubbo to Coonamble, being crossed at 303 miles 50 chains, also the watershed between Coolbaggie and Marthaguy Creeks at 305 miles 33 chains. A N.N.W. bearing is taken from 308 miles, and the latter creek will be bridged at 314 miles 73 chains, two roads leading to Gilgandra, which township is here about 5 miles eastward, are crossed at 316 miles 22 chains and 317 miles 5 chains, respectively. At 329 miles the line becomes generally parallel with the Castlereagh River, which is about 2 miles to the east, falling with the line. A dam is intersected at 337 miles 10 chains, and the main road is approached at about 3 miles further on.

The line is more or less parallel to the main road on the east and to the river beyond it right into Coonamble. The Warren to Coonamble road is crossed at 355 miles 10 chains and 365 miles 14·25 chains. The trial survey from Warren joins this one at 410 miles 59·30 chains on its mileage, the two being common north of this point, and having therefrom a nearly due north direction. The main road is crossed and recrossed at 369 miles 59 chains and 370 miles 51 chains, and the line ends at 371 miles 14·418 chains, about half a mile from the Castlereagh River bridge leading into Coonamble, at a suitable place for station ground and for extension.

The line in its course intersects unavoidably a considerable portion of private land, especially at the Dubbo end.

The section, except for some light work near Dubbo, is nearly a surface one throughout, and the bridge work is very light, the Talbragar River and Coolbaggie and Marthaguy Creeks only requiring moderately-sized bridges. Some of the line will be subject to flooding.

The ruling grade is 1 in 75, but this is only required on the Dubbo end, the Castlereagh Valley being flat. The sharpest curve is 20 chains radius.

The length of the proposed line is 93 miles 45 chains, and is estimated to cost £2,215 per mile, or a total of £207,285.

4. Is this the position of the Dubbo to Coonamble line: It is a line of easy grades, and of comparatively inexpensive construction—£2,215 per mile. The objections to it appear to be—(1) the severance of a large portion of private land, and (2) the extra length of construction? Yes.

5. And in favour of it is the fact that it is 46 miles nearer to the seaport? Yes. The line from Warren to Coonamble is £150 per mile cheaper, the length of new line to be constructed is 30 miles 12 chains less, and the total cost is £57,285 less than the line from Dubbo to Coonamble; but the distance from Sydney is 46 miles longer.

6. Do you know the country from Dubbo to Coonamble, as compared with that from Warren to Coonamble? I have not that close knowledge which would enable me to express an opinion.

7. You have a statement also with regard to the line from Mudgee to Coonamble? Yes.

This line begins at 189 miles 13·15 chains original mileage, and is close to the main road for about 8 miles, crossing the Cudgong River at 197½ miles, Gulgong being reached at 208 miles at the west side of the town. The line then proceeds in a north by west direction, crossing Wyaldra Creek at 210 miles 32 chains. After crossing Tallawang Creek the Goodiman range is surmounted at 223½ miles descending therefrom by the Tacklan Creek Valley. Cobbarah township is about 2½ miles to the south-west at 235½ miles, when the Talbragar is crossed. The Wallaroo range is crossed at 243½ miles, and the Dubbo to Werris Creek surveyed railway is intersected at 257½ miles. Mundooran township is passed on the south side at 255½ miles, and the Castlereagh River is bridged at 260 miles.

The Wallamburrawang range is crossed at 272 miles, and the creek of the same name at 279½ miles; at 297 miles the direction of the line changes to north-west, and is generally straight to Coonamble, where the line ends at the east side of the Castlereagh River at 336 miles 7·78 chains.

The section is moderately undulating from Mudgee to about 225 miles, and onwards varies from fairly light to ridgy as the ranges are crossed up to 306 miles, from whence to Coonamble the line is a surface one.

The ruling grade is 1 in 80.

Timber is scarce south of Gulgong. Except for this, materials for construction are fairly plentiful.

The length of the line is 147 miles, and the cost £3,258 per mile, or a total of £478,936.

The

MINUTES OF EVIDENCE—RAILWAY FROM WARREN TO COONAMBLE.

The following is a summary of cost, &c., of different routes for railways to Coonamble and Walgett:—

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Name of line.	Length.	Estimated cost.	Average cost per mile.	Ruling grade.	Through distance from Sydney to Coonamble.	Through distance from Sydney to Walgett.	Remarks.
	mls. ch.	£ s. d.	£ s. d.	One in	miles.	miles.	
Dubbo to Coonamble	93 45	207,285 0 0	2,215 9 6	75	371	440	
Mudgee to Coonamble.....	147 0	478,936 0 0	3,258 0 0	60	337	406	
Warren to Coonamble.....	63 32·71	150,000 0 0	2,365 12 0	100	417	486	
Coonamble to Walgett	69 0	199,900 0 0	2,897 2 1	150	.....	440½	Via Dubbo.
Narrabri to Pilliga	56 0	128,650 0 0	2,297 6 5	100	.....	.....
Pilliga to Coonamble	56 approx.	.....	.....	.....	462	.....	No survey, <i>via</i> Newcastle.
Pilliga to Walgett	56 60	.....	.....	.....	.....	462	Survey unrevised, <i>via</i> Newcastle.

The line from Mudgee to Coonamble will cost £271,640 more than the Dubbo line, and £328,926 more than the line from Warren to Coonamble.

8. If it is a surface line from beyond Mudooran, from that place to Mudgee it must be fairly heavy? Yes; that is the heavy portion.

9. It would be something like £5,000 per mile on that portion? I daresay it would.

10. If the average be £3,458 per mile, as you describe, it should not be more than £2,300 per mile from Mudooran to Coonamble? No.

11. Therefore, taking the average, that would bring the Mudgee end up to £5,000 per mile? Yes; that end is much more expensive.

12. The case for the Mudgee line is this: in favour of it, it is 80 miles nearer to Sydney from Coonamble; against it, is the extra cost of construction, and the fact that the grade is 1 in 60, which is a worse grade than on either of the other lines? Yes.

13. Have you any statement to make with regard to the line from Mudgee to Wallerawang? No.

14. You do not know the grades on the Mudgee to Wallerawang line? No.

15. Are you prepared to give an expression of opinion in regard to the class of country from Mudgee to Coonamble? No; I know from Mudgee past Gulgong, nearly as far as Cobborah, it is poor rough country. I do not know the other portion from Mudooran.

16. Is there any local reason for a railway from Mudgee to Gulgong? I should say not.

17. And from Gulgong to Cobborah? I do not know enough of that country to say.

18. The main justification of it would be the shorter distance to Sydney? Yes.

19. Is there any survey from Muswellbrook *via* Cassilis to Coonamble? I do not think so. There was an investigation made by Mr. Jones; but I do not think a survey was made.

20. Is the best information we can get on the question in Mr. Jones' report? Yes.

21. Has any survey been made from Coonamble on to Werris Creek? No.

Henry Chamberlaine Russell, C.M.G., Government Astronomer, sworn, and examined:—

22. *Chairman.*] Will you make your statement first with regard to the Warren to Coonamble line? The rainfall at Warren is 20·03 inches; at Nevertire, 21·85; Nyngan, 21·32; Merryanbone, 22·41; Nelgowrie, 21·46; Coonamble, 22·87; Nebea, about 15 miles north of Coonamble, 23·35; Warrana, close to Coonamble, 22·27; Calga, about east of Coonamble, 21·77; Kialgora, south-east of Coonamble, 23·43; Merrigal, due south of Coonamble, 24·29; Bundemar, near Warren, 22·97. These include all of the stations between Warren and Coonamble. H. C. Russell,
C.M.G.
14 Dec., 1897.

23. The heaviest rainfall is 24½ due south of Coonamble; the lightest rainfall of all is at Warren itself? Yes.

24. A fair average to take would be about 22 inches? Yes.

25. Do these rainfall records extend over any period? From about twelve to fourteen years.

26. A sufficiently long period for you to form a fairly correct opinion? Yes; the period covers dry and wet years, so that it may be taken as a fair mean. Then, at Dubbo, where the record extends over twenty-four years, the average rainfall is 23·57 inches. At Wambalong, just north of Dubbo, the average is 29·43. I think there must be some local circumstances affecting that, because it is much heavier than at any of the other places. That is the average for eleven years. Almost due west of Dubbo, for about 12 miles, is Dundullimal, with an average of 25·57, over a period of eleven years. Then, The Springs, a few miles due south of Dubbo, has an average of 26·49, for a fifteen-years' record; Terramungamine, 10 miles west of Dubbo, has an average rainfall of 23·91 for a period of eight years; Wellington, south-east of Dubbo, 24·85, the record extends over a period of fifteen years. At Biambil, north-east of Dubbo, the rainfall is 25·72, for a period of eleven years. A little further to the north-east, Mudooran has a rainfall of 28·58; and Gilgandra has a rainfall of 28·36, the record extending over thirteen years. The three proposed lines converge upon one point. If I give the rainfall on this line, right up to Coonamble, I shall be obliged to repeat certain stations already given as part of the Warren to Coonamble line. Therefore, I have stopped at Mudooran.

27. The rainfall in the vicinity of Dubbo, taking such stations as you have given, would be about an average of 24·35 inches? Yes. I will now take the stations from Mudooran to Mudgee. At Ulamanbri, about 30 miles south-east of Coonamble, the rainfall is 32·43, the record extending over a period of eight years; Coolan 31·26, over a period of twelve years; Cobborah 29·65, over a period of nine years; Pine Ridge 26·92, over a period of fourteen years. The latter place is about 20 miles due north of Mudgee. Gulgong has an average rainfall of 28·98 over a period of fifteen years. Mudgee has 27·41 over a period of twenty-three years.

28. In the vicinity of Mudgee the rainfall approximately is between 27 and 28 inches? Yes.

29. Then, going west to Dubbo, it is 25 inches? Yes.

- H. C. Russell, C.M.G.
14 Dec., 1897.
30. And further west to Warren, although at Warren itself the rainfall is 20 inches, a fair thing would be about 22 inches? Yes.
31. Have you any statement to make with regard to the time of the rainfall? The rainfall here is rather better in the second half of the year than in the first. I am speaking of the whole of the area included in the triangular piece of country extending from Warren to Mudgee and concentrating at Coonamble. It takes in about 120 miles.
32. Averaging the rainfall between Mudgee and Warren right through at something between 24 and 26 inches, are you prepared to say what proportion would fall in the second half of the year? I do not remember exactly how it stands.
33. It is a better rainfall in that half of the year, but there is no special difference? No, there is nothing remarkable in the difference.
34. It might be an inch or two? Yes; as far as the rainfall is concerned, the country under consideration should be favourable for the growth of cereals, but I am not prepared to speak with regard to its capabilities otherwise.
35. Speaking of the triangular piece of country already described, you regard the rainfall as sufficient? Yes, it is all favourable taking the average. It is an abundance of rainfall for wheat-growing, and it falls fairly satisfactorily as far as the period of the year is concerned. Perhaps the best information I have with regard to cereals is this: A deputation came from South Australia to consult me, and I was informed by them that anywhere below the 20 inches rainfall cereal-growing was a failure, and those connected with it were eventually ruined, while above the 20 inches rainfall they were able to get along.
36. *Mr. Fegan.*] How is it that in some cases you have a record for over twenty years and in other cases for only eight or nine years? Originally, the squatters as a class did not understand the value of the rain records. I began to try to teach them that in 1871, and I went on for six or seven years, publishing everything and writing to everybody whose name I could hear of; but we got along very slowly, and it was not until I took to publishing what is called a "spot" map, showing the rainfall with the names of the stations on it, that the people came in, and they have been gradually coming in since.
37. *Mr. Hassall.*] Do you not think there was something in the difficulty of obtaining rain-gauges? I have always supplied rain-gauges. The Government gave me a vote for the purpose. Where people were willing to furnish the record I supplied the rain-gauge.

Charles Edward Rennie, Chief Draftsman, Department of Lands, sworn, and examined:—

- C. E. Rennie.
14 Dec., 1897.
38. *Chairman.*] Do you produce a map? Yes. The map shows the country within 20 miles of each side of the projected line from Warren to Coonamble, and 20 miles north of Coonamble.
39. *Mr. Lee.*] Would that include any of the country embraced in your sketch-map connected with the Pilliga line? No.
40. Do the spheres of influence you have shown in the case of the line from Warren to Coonamble and the line from Narrabri to Pilliga meet? No; there will be a gap of some 10 miles between them. But as the line goes on from Pilliga to Walgett (and I take a sphere of influence there) the lines will just touch.
41. Will you explain the map? The blue tint shows the alienated land in the 20 miles limit; that embraces 1,149,200 acres. The settlement leases are shown by blue patches; they embrace 67,110 acres. The reserves, which are shown by the green tint, amount to 232,600 acres. The Crown lands, shown by a brown tint, amount to 475,720 acres. Crown lands comprised in leasehold areas, the leases of which expire between 1898 and 1900, amount to 463,700 acres. The area held under occupation license is 10,720 acres, and the miscellaneous and vacant areas amount to 1,300 acres.
42. Therefore, not including reserves, the area shown on your map, which will be available for settlement is about 474,000 acres? Yes; that is about it.
43. Have you any information with regard to the class of country? No.
44. You do not know anything about the capabilities of the country? No.
45. Are you able to express an opinion with regard to the effect of a railway upon it? No; I do not know sufficient about the country to enable me to say anything as to that.
46. Are you making any surveys for alienation? There are two areas down close to Warren. At the Gillendoon leasehold there are 11,900 acres to be withdrawn on the 17th of this month for alienation. Negotiations are also proceeding to withdraw from the Wonbobbie holding—just alongside the other—22,000 acres for settlement. That is not settled yet; negotiations are now proceeding. In regard to these two areas, the extreme portion would be 20 miles from Warren, and a considerable portion of the land lies within a few miles of the town.
47. What is the District Land Office? Warren and Dubbo is the District Surveyor's office. The District Surveyor at Dubbo is the officer who has charge of this district. The northern boundary is somewhere between Coonamble and Pilliga.
48. Who is District Surveyor at Mudgee? Mr. Crouch. Orange is the head office for Mudgee.

WEDNESDAY, 15 DECEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHREY.
 The Hon. JAMES HOSKINS.
 The Hon. CHARLES JAMES ROBERTS, C.M.G.
 The Hon. WILLIAM JOSEPH TRICKETT.
 The Hon. DANIEL O'CONNOR.
 HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
 JOHN LIONEL FEGAN, Esq.
 THOMAS HENRY HASSALL, Esq.
 GEORGE BLACK, Esq.
 FRANCIS AUGUSTUS WRIGHT, Esq.
 FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Warren to Coonamble.

Robert R. P. Hickson, Under Secretary and Commissioner for Roads, Department of Public Works, sworn, and further examined:—

49. *Chairman.*] You have a statement to make in addition to the evidence given yesterday? Yes.

R. R. P.
Hickson.

At the request of the Committee I beg to furnish the following further information with regard to the Warren and Coonamble line now under consideration:—

15 Dec., 1897.

(a) The distance from Coonamble, *via* Warren, to Sydney is 417 miles, and the new line to be constructed is 63½ miles, at a cost of £150,000.

(b) The distance from Coonamble, *via* Dubbo, to Sydney is 371 miles, and the new line to be constructed is 93½ miles, at a cost of £207,285.

In dealing with this matter, Mr. R. E. Jones, Assoc. M. Inst. C.E., Assistant Engineer, Public Works Department, reports:—"The country passed through for 40 miles from Dubbo is sparsely populated, and much of it of an inferior character. A good deal of pine scrub is found near Gilgandra; the soil containing too much sand to be of any good, either for grazing or the growth of cereals. The good timber-forest met with on the Mudgee scheme would also be served by this line at Kirba, but the river would need crossing to reach the railway."

(c) Coonamble, *via* Mudgee, to Sydney:—

The length of this route would be 337 miles, and the new line to be constructed 147 miles, at a cost of £478,936.

From Mr. Jones' report I append the following information:—"From Mudgee, for 100 miles, this line passes through undulating country, a large percentage of which could, if needed, be brought under cultivation. The district between Mudgee and Gulgong is well known for its agricultural products and fruit, especially grapes. The Goodiman Hills (the Great Dividing Range of the Colony), lying between Gulgong and Cobborah, are at present unproductive to a large extent, but there is a fair amount of settlement towards Tallowang, with many patches of good land. In the valley of the Talbragar the soil is first class and considerable cultivation exists along the river. Between Cobborah and Merrygoen, for about 43 miles, a belt of rough and poor country is passed through, but some fair timber could be obtained to the right of the line. The country about the Castlereagh River is of varying character, intersected by many creeks. In the neighbourhood of Yarragrin, about 12 miles west of Mundooran, there is on the northern side of the line a strip of splendid land fit for the production of cereals. All that is possible has been alienated and considerable settlement exists—in fact, to Coonabarabran, a distance of about 40 miles. At a few miles beyond Yarragrin the line enters some magnificent forests of ironbark, box, and pine. These belts of timber extend for many miles, and are of great value. The line continues to skirt the southern slope of the Warrambungle Mountains until it reaches plain and salt-bush country at about 40 miles from Coonamble. Here it is nearly all black soil, the plain being broken by belts of budtha, yarran, and other scrub."

(d) Coonamble, *via* Pilliga and the northern system, to Sydney:—

The length of this route is, approximately, 462 miles, and the portion of new line to be constructed between Coonamble and Pilliga and Narrabri is about 112 miles, at a cost of about £260,000.

The portion of this line between Narrabri and Pilliga has already been described; that between Coonamble and Pilliga is, I am given to understand, something of the same nature, but as I have not been over the route I am not able to state this definitely.

(e) Coonamble, *via* Gunnedah and the northern system, to Sydney:—

The distance by this route would be about 424 miles, and the new line to be constructed between Coonamble and Gunnedah would be, approximately, 130 miles. As no examination of this country has been made, it would be misleading to attempt to give even an approximate estimate.

(f) Coonamble, *via* Mundooran, Cassilis, Muswellbrook, and the northern system, to Sydney:—

The length by this route to Sydney, taking Mr. Jones' figures as correct, is 338 miles, and the new line to be constructed 210 miles.

In dealing with this matter, Mr. Jones describes the country as follows:—"From Muswellbrook to back of Denman the Hunter Valley although narrow is very fertile, but in large holdings chiefly used for grazing. The next 20 miles is of a sandstone nature, much of it suitable for vine-growing and agriculture. From the dividing range at 34 miles to Cassilis and beyond, chiefly basaltic formation, and with the exception of reserves the line passes through private property all more or less improved and nearly all forming part of four large holdings. From Cassilis to the Great Dividing Range there is not much settlement or good land. On the western slopes, however, and in the Talbragar Valley there is a rich belt with considerable cultivation."

The remainder of the line has been described in the Mudgee connection.

In the absence of reliable information, it would be impossible without further survey to give an estimate of the cost of this route.

(g) Coonamble, *via* Mundooran, Cassilis, and Jerry's Plains, to Singleton:—

The distance to Sydney by this route, according to Mr. Jones' figures, is 385 miles, and the new line to be constructed is 238 miles.

With the exception of the portion between Denman and Singleton, this follows the same line as the Muswellbrook and Coonamble line. The line between Singleton and Denman follows the valley of the Hunter and Goulburn Rivers, and the land is of the richest description, eminently suited for the growth of cereals and fruit, especially grapes and oranges. It is also a good dairying district, and a railway would no doubt tend to largely increase the acreage under cultivation, both of cereals and fruit; the land is, however, nearly all alienated.

The distance from Walgett to Sydney, *via* Coonamble and Warren, is 486 miles, and the new line to be constructed is 132½ miles, at a total cost of £325,000.

The distance from Walgett to Sydney, *via* Coonamble and Dubbo, is 440 miles, and the new line to be constructed is 162½ miles, at a cost of £382,000.

The distance from Walgett to Sydney, *via* Coonamble and Mudgee, is 406 miles, and the new line to be constructed is 216 miles, at a total cost of £650,000.

The line from Walgett, *via* Narrabri and the Northern system to Sydney is about 460 miles, and the new line to be constructed is 114 miles, at a cost of £262,050.

The country between Walgett and Coonamble is almost entirely flat, and consists of a series of broken plains, with occasional patches of salt bush. Frequent belts of budtha, wilga, box, and yarran scrub are passed through, but almost all the land is of black soil, fit to grow anything with a fair rainfall. As may be expected in this flat country, portions of the line would be subject to inundation, especially near Coonamble and Walgett; the latter place is, however, the most difficult to deal with, the town being situated at the confluence of two great rivers—that is to say, the Barwon and the Namoi.

The country between Walgett and Narrabri has already been described under the Narrabri to Pilliga railway.

R. R. P.
Hickson.
15 Dec., 1897.

50. The line from Walgett, *via* Narrabri, to Sydney, about 430 miles in length—the length of new line to be constructed being 114 miles, at a cost of £262,000—is the only line of those you have mentioned that would not do the dual work of Coonamble-Walgett? Yes.
51. All the other lines would pass through Coonamble, but in the case of the line from Narrabri to Pilliga, in order to pick up the Coonamble traffic, a branch line would be necessary from Pilliga? Yes.
52. The line *via* Narrabri is the only one that would not go through Coonamble? Yes.
53. The line from Coonamble, *via* Warren, to Sydney is shorter by 45 miles than the line from Coonamble, *via* Pilliga and the northern system, to Sydney? Yes.
54. But, if Newcastle be regarded as the port for that district, the distance from Coonamble to Newcastle, *via* Narrabri, would be, approximately, 362 miles—100 miles being taken off as representing the distance between Newcastle and Sydney—therefore, that would be a shorter line by 55 miles than the line *via* Warren? Yes.
55. The line *via* Gunnedah to Sydney would be 474 miles, and therefore 7 miles longer than the line under consideration? Yes.
56. And the distance by that route to Newcastle would be 324 miles? Yes.
57. *Mr. Lee.*] The distance from Walgett, *via* Narrabri, to Sydney is 26 miles shorter than from Walgett, *via* Coonamble, to Sydney? Yes.
58. And the length of line to be constructed from Walgett to the existing northern system would be 19½ miles shorter than the length of line to be constructed from Walgett to Warren? Yes; the distance being respectively 113 miles and 132½ miles.
59. And the cost of construction from Walgett to Pilliga would be £91,260 less than from Walgett to Warren? Yes.
60. *Mr. Wright.*] Do you know the country between Coonamble and Warren? No.
61. Or between Coonamble and Mudgee? No.
62. Do you know anything about the line from Narrabri to Pilliga? Yes; I know something of that country.
63. What is the country like between Pilliga and Coonamble? It is rich country, consisting to a great extent of black soil; but there are several creeks to be crossed, and it is, generally speaking, wet country.
64. You have never been on the Lower Castlereagh? No.
65. Then, I suppose, you are not prepared to give us any information about the country through which a line might be carried to Gunnedah? No; I have not any information on that point.

Hugh McLachlan, Secretary to the Railway Commissioners, sworn, and examined:—

H.
McLachlan.
15 Dec., 1897.

66. *Mr. Hoskins.*] The Under Secretary for Public Works has given the Committee information concerning different proposed routes of railway extension to Coonamble—one from Warren to Coonamble, another from Dubbo to Coonamble, and a third from Mudgee to Coonamble;—evidence has also been given by Mr. Hickson in regard to distances, and as to the character of the country between Coonamble and Pilliga, and between Coonamble and Cassilis, as far as Muswellbrook, on the northern line;—can you say whether the Railway Commissioners have arrived at any definite opinion as to the route they would recommend for a railway to Coonamble? I may say that in this matter the Railway Commissioners have taken more than usual care in dealing with the question of routes. I have mentioned more than once that the Commissioners, as a rule, devote themselves to the route put before them by the Government. They are not supposed to go into matters of policy; but in this case they have given a great deal of consideration to the different routes which have been submitted for a line to Coonamble. In their opinion—they have not stated it expressly in their report—the line at present before the Committee is the one that might most reasonably be undertaken. At the same time they do not wish to say that the other lines do not merit consideration. They see that in this case a great deal of consideration is to be given to rival routes, but, in their opinion, the line from Walgett to Coonamble offers the most advantages, and would be the best line to construct.
67. Can you say why they have a preference for a line from Warren to Coonamble above any of the other routes proposed? Because, speaking generally, that line would serve the best country, and it would afford the greatest convenience to the public. Another consideration that weighed with them was that it would be by far the least expensive of the three routes as regards construction. Take, for instance, the line from Mudgee to Coonamble, the one originally suggested and put before Parliament. That line, if constructed, would mean an annual expenditure of £20,000, in the shape of interest and maintenance, beyond the expenditure on the line under consideration.
68. Has any officer of the Department made an examination, from a railway point of view, of the different routes by which it is proposed to reach Coonamble? Yes; not only have the Commissioners had Mr. Harper inquiring into the matter, and obtaining information in reference to the country affected, but they have also themselves held conferences, I think, with the chairmen of the land boards; besides which they had a long interview with Mr. Jones, an engineer who was deputed by the Government some time ago to investigate all these rival routes. I think Mr. Jones was convinced, after hearing their views, that the line which the Railway Commissioners were putting forward had really a great deal to recommend it, Mr. Jones being inclined originally to favour the Mudgee line.
69. In the statement made by the Under Secretary for Public Works, the cost of the line from Warren to Coonamble is estimated at much less than the cost of an extension either from Dubbo or Mudgee? Yes. That is one of the reasons why the Commissioners recommend this line.
70. There was also the further consideration that this railway would be taken for a good deal of its length through a travelling stock reserve, and, therefore, there would be no land to purchase? I am not sufficiently acquainted with land matters to say anything positive on that point.
71. Then we are to understand that the Railway Commissioners strongly recommend the construction of the proposed railway from Warren to Coonamble, not only on the ground that it will cost much less than either of the other proposed routes, but also because, from the reports made to them of the character of the country, that which would be intersected by the proposed railway is the best? Yes. I may add that the Commissioners themselves have been over the line, and have seen the character of the country.

72. Have they also been over either of the lines from Dubbo or Mudgee to Coonamble? Two of the Commissioners have been from Mudgee to Gulgong.

73. There are a good many farmers located in the neighbourhood of Gulgong, are there not? Yes.

74. In the return laid before us, it is represented that the revenue from the proposed railway from Warren to Coonamble would exceed the cost of maintenance and working expenses? Yes.

75. Does that estimate include the amount that will yearly have to be paid as interest on the cost of construction? Yes, that is the first item—capital expenditure at $3\frac{1}{4}$ per cent.

76. Therefore, if the proposed line from Warren to Coonamble were constructed, according to the estimate of the Railway Commissioners, it would be more favourable as regards financial considerations than almost any other line we have had to deal with lately? Yes.

77. *Mr. Humphery.*] Have you had any estimate made of the probable traffic by any other route than that now before the Committee? Not a direct estimate; but Mr. Harper knows what the traffic would be by the Dubbo line, for which he has the figures.

78. What information had the Commissioners before them when they arrived at the opinion that the line from Warren to Coonamble would be the best? They had very full information. They had Mr. Harper going through the district. They had particulars of the traffic from the whole of the districts going into Dubbo, Trangie, and Mudgee, and also of the traffic between Warren and Coonamble. In addition to this they obtained information from the land boards, and they had a consultation with Mr. Jones, who had examined the whole of this country and made a very exhaustive report to the Government.

79. Did they examine the country themselves between Dubbo and Coonamble, and also between Mudgee and Coonamble? No.

80. Only between Warren and Coonamble? That is all, personally.

81. *Mr. Hassall.*] They took Mr. Jones' reports as regards the other routes? Yes; and also Mr. Harper's.

82. *Mr. Humphery.*] The Commissioners, from personal observation, decided to recommend the line from Warren to Coonamble? Yes.

83. Depending upon reports they received for the information which influenced them with regard to the other routes? Yes. They had in view also the difference in the cost to the country, and the difference in the annual charge for interest and maintenance.

84. Looking at the map, it would appear that a line from Mudgee would more fairly divide the country between the western line and the north-western railway system? Yes.

85. Did you take that into consideration? Yes; the Commissioners took that into consideration. As a matter of fact, I think Mr. Jones was rather in favour of the Mudgee line, and put his views before the Commissioners. But, as I have already mentioned, that line would mean an extra annual expenditure of about £20,000, besides an additional cost of £350,000 in regard to construction.

86. Did you make any estimate of the probable traffic on the line between Mudgee and Coonamble before you decided upon recommending the line from Walgett to Coonamble? No.

87. Have the Commissioners considered whether it is desirable now, or whether in all probability it will be necessary in the near future to construct a line from Mudgee? They have not recommended that line.

88. But have they considered it at all? They did consider it some time ago, but I do not think they recommended it. The Public Works Committee inquired into an extension from Mudgee.

89. That was to Gulgong only? Yes. Still, if the line were made from Warren to Coonamble, the Commissioners would never recommend another additional line from Mudgee, especially at a cost of nearly £500,000.

90. Are we to understand that the Commissioners would regard the whole of the country as sufficiently served by the construction of this line between Warren and Coonamble? For the present, yes. Of course they would not discount the future too much, but for all reasonable purposes that would be their solution of the difficulty at the present time.

91. What facilities of transit would be afforded for the whole of the country between the western and the north-western systems? Nothing more than a line to Coonamble, for that would intersect the best part of the country.

92. What would be the furthest distance from a railway station? I think Munderoran would not be more than 50 miles.

93. Then there would be no portion of the country more than 70 miles from a railway station? I should not think so in that intervening belt.

94. We have before us, in connection with this proposal, an alternative line from Coonamble to Pilliga. Assuming that line to be constructed, would it still be necessary, in your opinion, to have a line between Warren and Coonamble? As a matter of fact, that is a matter the Commissioners would not consider, because they think it would be out of the question to make a line from Coonamble to Pilliga.

95. They consider that quite out of the question? Quite out of the question. It is very poor country, and no good would be served by making a railway there. Then again the railway has not yet reached Pilliga.

96. You are aware that there is a proposal before the Committee for the construction of a line between Narrabri and Pilliga? Yes, which the Commissioners have reported against.

97. Having regard to the proposal to take a line between Warren and Coonamble, that would shorten the distance to Walgett by something like 60 miles, would it not? It is from 60 to 70 miles from Coonamble to Walgett.

98. How far from Walgett is the nearest existing railway station? Narrabri, the distance being, according to the survey, I think, about 114 miles.

99. So that Coonamble would be nearly 40 miles nearer by road than from Narrabri? Yes.

100. As to the cost of construction, you have not considered that, I suppose? No.

101. Have the Commissioners investigated the line between Coonamble and Walgett? No, not in detail.

102. Are you prepared to say, on behalf of the Commissioners, whether a line would be more desirable from Coonamble to Walgett than from Narrabri, *via* Pilliga, to Walgett? The Commissioners have already expressed to the Minister their opinion that *via* Coonamble is the direction which a line to Walgett should take, if such a line should be decided upon at some future time. At the present, however, they think that it would be premature to make that line; and there are other proposals which would affect

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- affect the question of the Walgett traffic, one of which—a line from Woolabra to Collarendabri—is likely soon to be before the Committee.
103. The Commissioners consider that the possibility of a line from Woolabra to Collarendabri is likely to affect the Walgett traffic? Yes.
104. Have the Commissioners examined the country between Woolabra and Collarendabri? Yes, and they have reported concerning the line.
105. In connection with this matter it is almost necessary to know whether or not the report of the Commissioners is favourable to the construction of that line? They speak rather favourably of the proposal in their report.
106. If that line should be constructed, the Commissioners would not then regard the extension from Coonamble to Walgett as at all necessary? No. In their report to the Minister, dated 19th November, 1895, the Commissioners, referring to this matter, say:—
- The Commissioners would, however, point out that they do not consider that the prospect of traffic to and from Walgett would justify, at the present time, an extension of the railway to that place; but that an extension from Warren to Coonamble, at an estimated cost of £177,500, would meet all the requirements of the near future.
- That estimate of £177,500 has since been reduced.
107. In the event of a line being constructed to Collarendabri, would the Walgett traffic go in that direction? No; but that line would probably intercept traffic that now goes to Walgett. I would not like to speak definitely on that point without going further into the matter.
108. All these lines must, to a great extent, be considered together—they affect each other very closely, do they not? Yes; I suppose they all go into what you may call debatable country. At present the Walgett traffic does not come *via* Coonamble.
109. It does not come that way, I presume, because the nearest point on the railway is Narrabri? The Walgett traffic mostly goes *via* Bourke or Narrabri.
110. Is it the opinion of the Commissioners that the whole of the country between the two railway systems would be sufficiently served by the proposed line from Warren to Coonamble, that eventually a line may be carried from Woolabra, or from some other point north of Narrabri to the Barwon, say, at Collarendabri, and that it would be unnecessary to construct a line to Walgett at the present time. Are the Commissioners of opinion that it would not be profitable to construct a line to Walgett from any of the termini? I think so. But that point has never been referred to them, though it was dealt with, to a certain extent, in their report of November, 1895, in which they said they did not think it was necessary at the present time to extend the railway to Walgett from any point.
111. Are the Commissioners of opinion, that with a railway at Collarendabri, the whole of the traffic would be gathered by one or other of the systems? A railway at Collarendabri would intercept a great deal of Walgett traffic—traffic now passing down towards Walgett.
112. Have the Commissioners fixed any point at which, in their opinion, the Darling should be reached between Bourke and Collarendabri? No.
113. Have they considered that point? Yes.
114. What is their opinion? It is their opinion that it would not pay.
115. Then it is their opinion that no railway should be constructed to reach the Barwon between Bourke and Collarendabri? At the present time, yes.
116. The Commissioners expect that much of the traffic would be drawn to Coonamble from Walgett? No; I do not think Coonamble would get any of the Walgett traffic.
117. Assuming the line to be constructed from Warren to Coonamble, the distance being considerably less than between Narrabri and Walgett, do you anticipate that the Walgett traffic, or much of it, will reach Coonamble? No.
118. *Mr. Wright.*] I suppose the Commissioners are aware that the country is practically impassable? In Mr. Harper's estimate I do not think he has taken credit for any Walgett traffic on the Coonamble to Warren line.
119. *Mr. Humphery.*] Why has he not taken credit? Because the traffic would still follow the existing routes on to Narrabri or to Bourke. I believe Mr. Harper's estimate does not include any of the Walgett traffic.
120. Do you know the reason why he has not taken credit for any portion of the Walgett traffic? Because, I suppose, the other routes would be more favourable.
121. Although longer? For wool reaching the sea-board, especially at Newcastle, Narrabri is the nearer route.
122. Then, in your opinion, the construction of a railway to Coonamble, would not affect the traffic which at present goes by way of Narrabri? I think not to a great extent; but I would sooner leave that question to be dealt with by Mr. Harper, who has gone into all matters relating to traffic.
123. In your estimate of earnings by the railway, have you given consideration only to the local traffic? Yes, I so understood from Mr. Harper.
124. Have the Commissioners satisfied themselves with regard to the probable earnings of the line? Yes. They went into the matter very carefully with Mr. Harper, who furnished them with a report and estimate of traffic. They also inquired into the question of traffic when they were at Coonamble and along the route.
125. Have they gone into this matter so carefully as to be able to confidently recommend this proposal in preference to any other? Yes.
126. And are they able to tell the Committee through you that, in their opinion, instead of there being any loss there would probably be a small profit after paying interest and working expenses? Yes; they think the line will about cover interest and working expenses.
127. What you have said is the result of an exhaustive investigation by the Commissioners? Yes.
128. The Committee are to understand that, upon Commercial lines, this proposal may be favourably entertained? The Commissioners think so and they recommend the line.
129. *Mr. Clarke.*] I think you stated to Mr. Humphery that you thought the Walgett traffic would not go to Coonamble? Yes; that, I understand, is the opinion of Mr. Harper.
130. But that it would rather go to Narrabri? Yes, principally.
131. Still, the Commissioners are of opinion that it is not advisable that a line should be made from Narrabri to Pilliga? Yes; they have reported against that proposal.

132. In that case, how would the people get their produce to Narrabri from Walgett? As they get it to-day.

133. Not by railway? No.

134. Do the Commissioners approve of the line from Woolabra to Collarendabri? I think they rather favour that line in their report.

135. On the whole, the Commissioners prefer at the present time the railway from Warren to Coonamble? Yes.

136. Do you know anything of the nature of the country? No; I have not been over it myself. The Commissioners were over it and were exceedingly pleased with it. Mr. Harper was with them.

137. *Mr. Lee.*] We have now practically four lines before the Committee, all, directly or indirectly, involving the traffic of the Barwon River, namely, a line from Byrock to Brewarrina, one from Narrabri to Pilliga, and ultimately to Walgett, one from Warren to Coonamble and ultimately to Walgett, and one from Woolabra to Collarendabri;—the Barwon River is the terminal point of the whole of these lines? Yes.

138. Are the Committee clearly to understand that the present recommendation of the Commissioners for a line from Warren to Coonamble contemplates that point as the terminus? For the present. They have no idea at present of going beyond that.

139. If the line were constructed to Coonamble, is there any probability that it would be extended to Walgett eventually? If it should be advisable at any future time to extend the railway to Walgett, the opinion of the Commissioners inclines towards an extension from Coonamble. But as I have already said, at the present time they do not think an extension to Walgett from any point would be justifiable.

140. But, viewing the whole question, if at any time it should be advisable to extend the railway to Walgett, then the Commissioners think it should go from Coonamble? Perhaps I might read more fully the opinion they expressed in November, 1895. Writing to the then Minister of Public Works they say:—

With reference to the desire of the Hon. the Minister to have the opinion of the Railway Commissioners in reference to the most desirable route to be taken to connect Walgett with the railway system of the Colony, we beg to state that we have considered all the routes mentioned in the letter from the Under Secretary for Public Works, dated the 11th ultimo, and in our opinion there are only two which should be seriously considered for the purpose, namely, from Warren—to which an extension has recently been recommended—*via* Coonamble; or from Mudgee *via* Gulgong. The estimated costs of these extensions are respectively £385,000 and £734,000; and in view of the large difference in favour of the former it is recommended that it should be selected for the purpose. The Commissioners would, however, point out that they do not consider that the prospect of traffic to and from Walgett would justify at the present time an extension of the railway to that place; but that an extension from Warren to Coonamble at an estimated cost of £177,500 would meet all the requirements of the near future.

141. They are simply there dealing with this line as an extension from Warren to a point where they believe it would be of advantage and would pay? Yes.

142. If this extension is made to Coonamble the question of an extension from Mudgee to Walgett drops out of the question? Yes.

143. Because there would then be practically two lines to the one point? Yes; and the great objection to the Mudgee line is its cost, as the Commissioners point out.

144. Would it not appear that if a line is constructed by this route to Walgett all that large area of country from Brewarrina towards the Western line, and across country where it intersects the Coonamble line, and all the rivers there, would be practically for all time without any railway communication? Still each extension places them in a better position than they were before.

145. What better position would they be in? Traffic by road drifting down along the creeks must help them a bit. Every mile you go westward must help the western country.

146. You mean they would be able to come down the Castlereagh, the Macquarie, the Marthaguy, and those other rivers and touch the railway at a point which would be much closer than Warren? Yes; each mile of extension must help the district. The district itself is not rich enough to warrant an extension being made at the large expenditure that would be required. That is the view the Commissioners take. They would proceed very tentatively in recommending an extension into that far western district.

147. If the Commissioners are satisfied that their present proposal is the wisest, and having in view the fact that the line must ultimately go to Walgett, it would follow, as a matter of course would it not, that all the other proposals for extensions to the Barwon would be, practically useless? So far as Pilliga is concerned, I should say so, and perhaps so far as Brewarrina is concerned; but I am inclined to think rather favourably of the Collarendabri extension.

148. The Commissioners are of opinion that there is no justification for more than one line to go to the Barwon? I should not like to say that. You have the Darling touched at Bourke, and you would have it touched at Collarendabri. You would have it touched at pretty wide distances.

149. But there is an enormous river area between those two points? Yes. At the same time you cannot touch the Barwon at any other point without involving an immense cost to the country.

150. Is it not the country between the two points mentioned that provides all the wool traffic? No; I should not like to say that.

151. But there is little or no traffic above Collarendabri on the river;—Collarendabri, except in very favourable seasons, is at the head of navigation? Collarendabri would drain a very big district.

152. The river-borne produce comes from points between Collarendabri and Walgett, and between Walgett and Brewarrina? There is not a very great deal of river traffic, so far as I am aware, at those points, because the river is not, as a rule, very certain of navigation.

153. If the line is extended to Walgett, as proposed, looking to the future, it would follow that all the traffic from that western country, having Sydney as its depôt, would have to come by the Great Western line? Yes; the Commissioners do not recommend an extension to Walgett. They would like that to be understood.

154. But there can be no doubt that if a line is once made from Walgett to Coonamble it will be taken further? Most likely.

155. As far as we can see at the present time, we must assume that, if this extension is made, it will have to be taken further? Yes; but I think it will be a long time ahead myself.

156. In such an event, the Great Western line would have to carry all that traffic? Yes.

157. Would not that be burdening the Western line very much? I think not. I think we should be able to carry it.

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158. You think the Western line would be capable of carrying the additional traffic? Yes.
159. Of course, that would not be the only extension from the western system;—there would be other extensions from the Western line, all of which would mean bringing additional traffic to the Great Western Railway? Yes.
160. Under those circumstances, with the heavy grades over the mountains, do you think it would be possible to carry the whole of the western traffic and the north-western traffic on that line? I do not think we should feel distressed by the additional traffic we would be likely to get. I do not think that should be a factor in the consideration of this question.
161. I suppose it is a phase of the question that has been considered by the Commissioners? If it were a vital question it would be considered, but it is not a vital question.
162. But, as a matter of fact, have you not had to improve your lines very much to enable you to carry the present traffic? Taking the three routes to Coonamble most favoured, namely, from Warren, Dubbo, and Mudgee—either of these would go over the western system, and over the worst part of it.
163. But would not that be avoided if the extension were made to Walgett from Narrabri? Still that consideration is not important enough to turn the scale in favour of a railway from Narrabri to Walgett.
164. But if that country is closely settled in the future, and the produce from it largely increases, will not the traffic be a great tax upon your western system? I do not think that is a matter that would ever have to be feared, because, if the traffic became very great, we could duplicate the line. There are various ways in which you could help to carry the traffic.
165. Has not the western traffic increased to such an extent as to necessitate your altering the grades? That is done as an economical arrangement, even with traffic that is only comparatively heavy, and it pays. That is one reason why we can put more traffic on the line. It will help the carrying power of the line a great deal, and consequently we want some additional traffic to assist us further.
166. Taking the northern or north-western line as against the proposed extension from the western line, the extension from Narrabri to Walgett being shorter, and the distance from Sydney and from Newcastle being less, do you not think the traffic from that portion of the country could be economically carried by that route, thereby giving the producers along the north-western and northern lines a benefit? That is not the only consideration. There are a number of other considerations. In the first place, the traffic to the Walgett district does not warrant a railway at all, nor does the intermediate traffic warrant the extension of the railway. In the case of the proposal under consideration, you have a district in which the Commissioners think the intermediate traffic does warrant the extension of the railway. If, in consequence of that extension, it is found advisable to carry the railway on to Walgett, so much the better; but at present the Commissioners do not recommend a railway to Walgett from any point.
167. The construction of a railway to Coonamble practically determines the route of the extension to Walgett, if such should become necessary? Yes, if necessary; and that is, of course, a very important consideration, because I think that, in the opinion of the Commissioners, it would, perhaps, be a long time before railway extension from Coonamble to Walgett would be considered necessary.
168. If the railway does not go beyond Coonamble, and if the north-western line does not go beyond Narrabri, would you not continue to have that difficult traffic to deal with on the river that you had for so many years? There is very little traffic done on the river at this end below Walgett, either towards Narrabri or towards Collarenebri.
169. There must be a certain amount of traffic that finds its way down to Walgett in seasons when the river is favourable? As a matter of fact, very little traffic by river passes Bourke; so that even if it came down the river, we should still probably get it at Bourke.
170. That is to say, your railway system would get it at some point? Yes; we should take it up at one point or the other.
171. In other words, you are now satisfied that the wool traffic cannot go to Victoria or South Australia by river? Not from above Bourke. That has been the experience for some years past.
172. It used to at one time? Some years ago, perhaps.
173. But of late years it has not? That was the information we had with regard to the Brewarrina line.
174. I suppose you are prepared to say definitely it does not go there? That was the information we had with regard to the Brewarrina traffic.
175. As a matter of fact, you could bring the produce to market so much cheaper and quicker? That seems to influence the people.
176. So far as the Commissioners are concerned, they are satisfied that an extension to Coonamble would pay, and they are satisfied that the best way to take that extension is from Warren, and not from Mudgee? Yes; and the reason is very largely because of the difference of cost, and the greater expenditure the country would have to bear.
177. *Mr. Fegan.*] The objective point of railway extension, either from Narrabri or from Warren, would be Walgett? No; I should not like to say that. The Commissioners do not recognise at present that a railway to Walgett is necessary.
178. But is it not a fact that when the proposal was before the Committee to construct a line from Nevertire to Warren, the opinion given by the Commissioners was to the effect that they had no idea of constructing the line to Coonamble at that time? No. I think they said they had an idea that the line might be constructed to Coonamble. I think that, to some extent, they recommended the extension to Warren as the first section of a line to Coonamble.
179. Were not the Committee told that a line from Nevertire to Warren was desirable in order that a better depôt might be provided at Warren than existed at Nevertire? I think there was also the idea of a future extension.
180. Was it not pointed out that at Warren there would be better water, better feed, and better stock appliances? That was stated, but at the same time I do not think it was represented that, in the future, it was not likely the line would go beyond Warren to Coonamble.
181. Is it the intention of the Department to charge local rates on the line to Coonamble, or the ordinary rates? It is intended to charge what we call through rates.
182. So that you look upon this line as one that will pay from the beginning with through rates? Yes.
183. Do you know the distance between Narrabri and Newcastle? I think it is 250 miles.
184. Pilliga to Newcastle is a much nearer line than the line from Coonamble to Sydney? Yes.
185. Though you say you have not taken it into consideration, do you not think that a line will very soon have to be constructed to Walgett? The Commissioners think not.
- 186.

186. Do I understand you to say that the Commissioners think it is of so small importance that they have not taken it into consideration? They have considered it, but they do not think it is necessary to construct a line to Walgett. They see no immediate necessity for it.

187. I suppose the line from Warren to Coonamble is much cheaper than the line from Mudgee to Coonamble? Yes.

188. And cheaper than the line from Dubbo? Yes.

189. Is the country from Warren to Coonamble better than the country from Dubbo to Coonamble? Yes.

190. Serving a larger number of people? Yes.

191. *Mr. Roberts.*] Have the Commissioners advised the Government that they do not see any necessity at present to give Walgett the advantage of railway communication? Practically, yes.

192. Is that owing to the fact that Walgett has the advantage of river communication to Bourke? Not so much for that reason as for the fact that they do not think it would be a profitable undertaking. I think that is the consideration which largely influenced them. They do not see any prospect of such a line being remunerative.

193. It is not altogether the competition from the river traffic? No, I think not; and I think the Commissioners had in consideration more recently the probability of a line being made to Collarendabri.

194. They think a connection at Collarendabri would command greater traffic than a connection at Walgett? Yes; it would command some of that traffic at any rate.

195. Is the river navigable between Collarendabri and Walgett? It might be in a favourable year, but I do not think you could call it a navigable river.

196. It would have to be a very favourable year? Yes.

197. Would not the quantity of wool coming from Walgett be sufficiently large to warrant Walgett getting a railway from some point or other? No; the Commissioners think not.

198. Does a large quantity of wool at present go down the river from Walgett to Bourke? I think not.

199. In view of the impassable nature of the country in wet seasons, and the difficulties of transport in dry seasons, would not the construction of a railway to Walgett prevent a large expenditure on roads? I do not think you would save much road expenditure. I do not think there would be such a saving as would warrant the Government in spending money on a railway.

200. Could you tell the Committee where the Walgett traffic goes at present;—does it go mostly to Newcastle? It goes mostly to Narrabri, and is carried over the Northern line to Newcastle and Sydney. A great deal of it is carried by the local steamers from Newcastle to Sydney.

201. Could you tell us the percentage of wool, say from Walgett, that is shipped at Newcastle, and the percentage that comes to Sydney? I know most of it comes to Sydney, but I could not say from memory. We had that particular information worked out, and I think it was given to the Committee in connection with another line. Two-thirds of the wool from that district comes to Sydney.

202. And the other one-third is shipped at Newcastle? It may be shipped from there direct to foreign ports.

203. Would not all of that 33 per cent. come to Sydney by steamer? Most of the two-thirds would come to Sydney by steamer. It would not be carried by railway from Newcastle to Sydney. Two-thirds is the proportion that comes to Sydney, either by rail or by local steamer.

204. Could you tell us how much came to Sydney from Newcastle by steamer, and how much by rail? Not from memory. We do not carry a great deal by rail.

205. Would not a through rate be quoted from Narrabri to Sydney, and would it not be better to pay the through rate than to tranship at Newcastle for Sydney? The through rates exist to-day; but still the steamers cut for the business, and the Commissioners have not thought it worth while to adopt a differential rate. The people at present have the advantage of a through rate if they wish to avail themselves of it.

206. If the line to Coonamble is constructed, do you expect that it will get any of the traffic, or a large portion of the traffic, that now goes by way of Narrabri? No; I do not think Mr. Harper has allowed for any Walgett traffic.

207. It would still go down to Newcastle? It would still go as at present.

208. So that Newcastle would still remain the shipping port? Chiefly so for the Walgett district.

209. *Chairman.*] I want to direct your attention to a comparison between the line from Dubbo to Coonamble, and that between Warren and Coonamble, dealing with the matter on a commercial basis;—you told the Committee that one reason why the Commissioners approved of the Warren to Coonamble line was that it would save £57,000 in initial cost. Calculating the interest for the sake of comparison at 3 per cent., the saving of that £57,000 means, approximately, from £1,500 to £1,600 a year;—that is your credit to start with? Yes.

210. Comparing that credit with the other side of the question, goods from Coonamble, *via* Warren, to Sydney would be carried 46 miles further, and therefore you have 46 miles more haulage for all time? Yes.

211. The length of new line to be constructed is, in one instance, 63 miles, and in the other 93 miles, and therefore there is a wear and tear of 30 miles? Yes.

212. It would practically resolve itself into this: We will take it for granted that 30 miles of the line from Dubbo to Coonamble would serve some local purpose, just as 30 miles of the line from Warren to Coonamble would serve some local purpose. The case, therefore, resolves itself fairly well into the saving on the initial cost of £57,000 as against the extra haulage for all time of 46 miles? Yes.

213. Looking at your statement with regard to the Warren and Coonamble line, the Committee are given to understand that the cost of haulage on the two lines under consideration would be about the same, the grades and curves being about the same, so that we may regard them as equal from that standpoint? Yes.

214. Your estimate of the cost of maintaining the permanent way and locomotive expenses is £4,900—that is, for 63½ miles;—is it reasonable to suppose that the cost of hauling 46 extra miles over country west of Dubbo would be equal to 46-63rds of £4,900? Of course you might take it in that way. I should not like to say it would be exactly the same, but for purposes of comparison I think you might reasonably say so.

215. For convenience of calculation we will take it at 46-63rds of £5,000;—that comes to something between £3,000 and £4,000 a year? Yes.

216. Therefore, in a financial sense, viewed from the first standpoint, it would appear that the figures would rather tell against the Coonamble to Warren line? Yes. That may be so if the only factor in the consideration is the question of reaching the port of shipment; but the local advantages in the way of traffic between Warren and Coonamble are so immensely superior to those existing between Dubbo and Coonamble as to warrant the adoption of the longer route to port.

217.

H.
McLachlan
15 Dec., 1897.

- H. McLachlan.
15 Dec., 1897.
217. Then it follows that a line from Coonamble to Mudgee would show a greater saving in haulage to Sydney, but on the other hand a greater initial cost; while there again, of course, the local considerations come in? Yes.
218. Is the Mudgee line a very difficult one to work;—what are the grades? One in 40 is the heaviest grade.
219. Would it be of greater advantage to the country to connect at Mudgee, or to connect, say, at Wellington? That point has not been considered. We have very heavy grades from Wellington to the top of Mullion Creek. There is a long stretch there of 1 in 40.
220. Is there any practical difference between Wellington and Mudgee? I do not think there is a great deal; the same ruling grade applies in both cases.
221. Then you think we need not bother about the question as between Wellington and Mudgee? I do not think so.
222. What is the freight for wool by steamer from the Hunter to Sydney? Speaking from memory, I think it is about 10s.; but Mr. Harper could give you that information.
223. How far can you carry wool on the railway for 10s.? It depends upon circumstances. You may say that sometimes we carry wool 100 miles for nothing. We carry wool at between 3d. and 4d. a mile; that is what you might call a local charge.
224. What is the charge for wool per mile? We have carried it from Bourke for less than 2d. per ton per mile. On the other hand, our local charge has been as high as 4d. a ton per mile. I should not like to say at what we can afford to carry it, because we are guided by circumstances—the length of haul and the competition.
225. What would be a fair rate for 100 miles, say, between Sydney and Newcastle? We have been charging 15s., but I regard that as a low rate.
226. Could you do it cheaper than that? We could do it cheaper; we carry certain commodities cheaper.
227. Would it be a commercial transaction if done cheaper than that? It would, I think, in this way: that it is an extended rate; but the Commissioners have not been too anxious to compete in that way for the Newcastle business.
228. Therefore, if the steamers do it for 10s., it is reasonable to believe they will carry the wool permanently? They have been carrying most of the wool, yes.

THURSDAY, 16 DECEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN.)

The Hon. FREDERICK THOMAS HUMPHERY.	CHARLES ALFRED LEE, Esq.
The Hon. JAMES HOSKINS.	JOHN LYONEL FEGAN, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	THOMAS HENRY HASSALL, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	GEORGE BLACK, Esq.
The Hon. DANIEL O'CONNOR.	FRANCIS AUGUSTUS WRIGHT, Esq.
HENRY CLARKE, Esq.	FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Warren to Coonamble.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and examined:—

- J. Harper.
16 Dec., 1897.
229. *Mr. Humphery.*] Have you brought with you a statement with reference to the proposal now under the consideration of the Committee? Yes; it is as follows:—

PROPOSED EXTENSION, WARREN TO COONAMBLE.

(Distance, 64 miles; estimated cost, £177,000.)

Distance from Sydney to Nevertire	341 miles.
" Nevertire to Warren	12 "
" Warren to Coonamble	64 "
Total distance.....	417 miles.

The other two routes to Coonamble which have had consideration give the following mileages to that town from Sydney:—

<i>Via</i> Mudgee.....	337 miles.
<i>Via</i> Dubbo	373 "

As directed by the Commissioners, I instructed an officer to make a thorough investigation at the various stations which dealt with the traffic of the district proposed to be served by this line. Copy of his report is attached. I have personally verified, as far as possible, his conclusions and estimate, as far as existing traffic at Nevertire, Dubbo, and Trangie are concerned. The tonnage given is that actually carried, and the live stock traffic is also based upon actual operations. There is no doubt, however, that with railway communication a very large area of valuable agricultural land in the district would be utilised, inducing closer settlement and a corresponding increase in traffic.

The prevailing rates of road carriage are so low that other than through rates could not be obtained for second and third class goods. The cost of these classes of traffic delivered at Coonamble are:—

<i>Via</i> Dubbo—	second-class.	Third-class.
Rail to Dubbo	102/8	142/8
Road to Coonamble.....	45/-	45/-
Total	147/8	187/8
<i>Via</i> Nevertire—		
Applying local rates	153/3	210/3
Applying local rates to Coonamble	153/3	210/3
Through rates by rail.....	139/2	193/9

It is obvious that we could not obtain more than through rates.

Of course it would be possible to obtain local rates on all classes to 1st inclusive, which would probably increase the estimate by about £500.

Credit has been taken for the increased earnings over the main line by the division of the traffic at present falling in at Dubbo and at Trangie.

Wool

MINUTES OF EVIDENCE—RAILWAY FROM WARREN TO COONAMBLE.

Wool Traffic.

There is no doubt it would be quite possible to obtain a higher and arbitrary rate of 10/- per ton or more for wool from Coonamble. J. Harper.

The lowest rates *via* Dubbo are :—

By rail	£3 9 0
By road	£2 10 0
Total	£5 19 0

16 Dec., 1897.

Whilst the rate by rail from Coonamble would be :—

Nevertire to Sydney	£3 15 7
Proposed local rate, Warren	0 3 0
Through Warren to Coonamble	0 5 4
Total	£4 3 11

As, however, the present rate to Cobar (459 miles) is £4 10s. per ton, equal to 2.34d. per mile, or £4 1s. 6d. per ton for the distance (417 miles) to Coonamble, it would perhaps be anomalous to increase it further.

Live Stock Traffic.

The estimate is based on a somewhat bad year for stock and might be safely increased by, I think, at least £1,000. This would be earned on account of increased revenue on the main line from stock at present trucked at Rylstone, Mudgee, and Lue from the Coonamble district, and the inducement to the selectors to fatten for market owing to having ready means of forwarding small consignments which would not pay for droving to the present trucking points.

Including this £1,000 and applying through rates generally, my estimate is :—

Goods, wool, and stock traffic	£6,623 0 0
Coaching traffic—	
2,000 passengers, 30 miles, at 5s. each	£500 0 0
4,000 passengers, 64 miles, at 10s. each	£2,000 0 0
Horses, carriages, parcels, &c.	£200 0 0
Mails	£2,700 0 0
	£768 0 0
Total	£10,091 0 0

I can give details of the estimated traffic as follows :—

ESTIMATE of Traffic, Warren to Coonamble Railway, for twelve months, based on 1894-95 season.

Station concerned.	Miles	Through rates.			Through rates.			Through rates.			Totals.		
		Goods traffic.			Stock traffic.			Wool traffic.			Tons.	Trucks.	Amount.
		Tons.	Rate.	Amount.	Trucks.	Rate.	Amount.	Tons.	Rate.	Amount.			
NEVERTIRE.													
Tanandara	14	322	3/8	£ 60 17 4	603	4/1	£ 123 2 3	1,653	1/2	£ 96 8 6	2,075	603	£ 284 11 5
Bullagreen	30	100	-/10	4 3 4	120	8/9	50 14 0	159	2/6	19 17 6	265	120	103 3 2
Bourbah	40	76	7/11	30 1 8	280	11/8	168 11 8	1,373	3/4	228 16 8	1,640	289	504 5 2
Coonamble	64	30	1/8	2 10 0	726	18/8	677 12 0	1,383	5/4	368 16 0	1,957	726	1,397 0 4
		80	2/2	8 13 4									
		374	16/10	314 15 8									
		200	3/7	35 16 8									
Total		1,369	...	£555 1 6	1,738	...	£1,019 19 11	4,568	...	£713 18 8	5,937	1,738	£2,289 0 1
DUBBO.													
Bourbah	40	...	...	...	70	33/6	117 5 0	...	...	...	...	70	117 5 0
Coonamble	64	686	36/6	1,251 19 0	450*	40/6	911 5 0	1,200	11/7	695 0 0	2,114	450	2,945 12 0
		228	7/8	87 8 0									
Total		914	...	£1,339 7 0	520	...	£1,028 10 0	1,200	...	£695 0 0	2,114	520	£3,062 17 0
TRANGIE.													
Tanandara	14	...	...	...	200	13/5	134 3 4	...	...	...	...	200	134 3 4
Bourbah	40	...	...	...	31	21/-	32 11 0	...	...	...	...	31	32 11 0
Coonamble	64	...	...	...	75	28/-	105 0 0	...	...	...	...	75	105 0 0
Total .....		...	...	...	306	...	271 14 4	...	...	...	...	306	271 14 4
Grand total		2,283	...	£1,894 8 6	2,564	...	£2,320 4 3	5,768	...	£1,408 18 8	8,051	2,564	£5,623 11 5

* This represents half the traffic passing through the books.

230. What is the date of that report? 9th June, 1896. The estimated cost of the line stated in that report as £177,000 has since been reduced.

231. Will you please add to the information in that report the rate of road carriage from Dubbo to Coonamble? £2 5s.

232. And from Warren to Coonamble? Somewhere about the same.

233. And from Trangie? No goods come into Trangie, but only stock which follow the rivers down.

234. You have not taken credit for any goods? No; I have only taken credit for stock, in the case of Trangie—stock from Coonamble.

235. Have you examined the district between Warren and Coonamble out as far as Walgett? Yes.

236. Will any traffic come into Coonamble from north in the direction of Walgett? Yes; I have included as far as Wingadee.

237. How many miles would that be from Coonamble? About 45 miles.

238. And from Walgett? I suppose about 20 or 30 miles from Walgett.

239. Then you have included in your estimate the whole of the traffic within about 20 miles of Walgett? Yes, within about 20 miles.

240.

- J. Harper.
16 Dec., 1897.
240. Would any of that traffic which you have included in your estimate be diverted from the Narrabri route? No, not a bale.
241. Will you explain how it is that the traffic from Walgett that now reaches Narrabri will continue to go in that direction? Because the traffic which reaches Narrabri from Walgett is traffic from the north and north-west of Walgett, with the exception of that from Ulumbie which is practically at Walgett.
242. Do you say that the proposal now before the Committee will not give any facilities to Walgett? It will, of course, bring Walgett considerably closer to railway communication than it is at present. It is now 114 miles from Narrabri, and it will then be 67 miles from Coonamble.
243. If Walgett will be 47 miles nearer to a railway, how can it be said that it will not be served in any way whatever? It will be served, but I did not calculate the Walgett traffic. As I explained to the Committee before, in dealing with this group of lines, I have necessarily to consider the claims of each of them, and to be particularly careful to see that traffic which might fall into one is not credited with another. I thought I tried to explain that in connection with the Byrock to Brewarrina line. There is traffic which is really common to both lines. In this case the traffic which has been included in the estimate can scarcely be regarded as being common to both lines.
244. In your estimate of traffic you have carefully excluded any that would possibly be served by an extension from Narrabri or from any other point reaching the Darling? Yes.
245. Therefore any line of railway that may be constructed other than this one will not affect your estimate of traffic? That is the case.
246. Have you taken into consideration in your estimate of the earnings of the line the additional traffic that would be brought on to the main line? No; no additional traffic would be brought on to the main line, unless it be traffic created by reason of the closer settlement.
247. When I say brought on to the main line, I mean the Western line? I have included this much of it: in the statement I have read you will observe that in giving you the traffic that at present comes from that district, and falls in at Dubbo, I have treated it at the higher rate. I have credited it with the increased mileage which will pass over the main line. For instance, to-day coming into Dubbo freight is obtained on the Dubbo distance only; joining the train at Coonamble, of course, freight would be obtained over the whole mileage.
248. Have you considered the competition by road from Dubbo to Coonamble, and allowed sufficiently for it? I have. I have allowed rates which would secure the traffic for the railway, instead of for the road.
249. What rate have you allowed so as to secure the freight that now reaches Dubbo? A difference of 7s. 8d. a ton in one case. The maximum rate which has been taken for rail purposes is 36s. 6d., but that varies down to 7s. 8d.
250. The maximum with what starting point? From Dubbo to Coonamble the road carriage is £2 5s., and the maximum rate allowed here is 36s. 6d., and in the case of wool 11s. 7d.—that is to say, it would cost 11s. 7d. more to send wool from Coonamble right through than it would from Dubbo. But at Dubbo you would, of course, have to add the road carriage between Coonamble and Dubbo, which I have given as £2 10s., which was the rate at the time the report was made.
251. What is the difference between Dubbo and Coonamble by rail and by road for all classes of traffic comprised in your estimate, including passengers? In favour of rail transit, on the highest class of goods, it would be 9s. 6d. per ton. On special and other classes it would be 37s. 4d. a ton in favour of rail transit. In the case of wool it would be 38s. 5d. in favour of rail transit—taking the rates of road carriage as they existed at the time the report was made.
252. Have you observed those differences in making your estimate right through? Yes; those figures are really taken from my estimate.
253. Therefore, in order to put the road carriage on the same footing as the railway carriage, it would be necessary to cheapen it by the figures you have given as the difference? That is so.
254. With regard to the number of passengers included in your estimate, how was that number arrived at? By taking the whole population of the district which would be served by the line, and giving them each one journey per year.
255. How much of the district did you embrace in your estimate with regard to population? About 50 miles due north of Coonamble, about 35 miles west, about 30 miles east, and south by the length of the line to Warren.
256. Would not 30 miles east of the proposed line bring you almost as near to Narrabri? No; it only brings you to Urawilkie, where you would still be 80 miles from Narrabri, with an impassable brigalow scrub between.
257. Would 50 miles north-east from Coonamble bring you close to Pilliga? No. In my estimate of passenger traffic I have included these boundaries:—On the east Wonbobbie, Merrigal, Urawilkie, Terombone, Nebea, and Weetallibar. Direct north—Bogewong, Bimble, Tyrone, Bullorora, Wingadee, Kanimbla, Warrigan, Wangarawallie. North-west—Polybrewan, Carinda, Quabathoo, Warren Downs, Pillingawarrinia, Quambone, and Lower Merri Merri. On the western side—Haddon Rigg, Gradgery, Noondah, Carvell, Mount Harris, the Mole Brigalows, Inglebar, and Narrabone. That will give you a comprehensive boundary of the whole district.
258. Do you regard the estimate you have given of the passenger traffic as a moderate one and likely to be exceeded? Yes. My opinion is that the Walgett people would largely avail themselves of this means of communication with Sydney. There would be about 65 or 70 miles of an infinitely better road than the one they have to travel down the Namoi to Narrabri.
259. Should the Walgett people avail themselves of this proposed railway, what difference in fare would be credited to the line? I could not tell you to what extent they would avail themselves of it.
260. Take an individual journey, and say that instead of going by Narrabri they came by Coonamble? The average would be about 10s. per passenger.
261. There would be a gain to the line of 10s. for every passenger travelling by Coonamble, instead of by Narrabri? Yes.
262. You have had very general experience, have you not, of the whole of that district? Yes.
263. And you are able to speak as to the character of the soil, and the kind of occupation that could be profitably carried on there, either agricultural or pastoral? I think so.
264. Will you give the Committee in general terms the benefit of your knowledge in that direction? My opinion is that it is amongst the best districts in New South Wales.

265. Starting from where? Practically from the starting-point at Warren and extending to Coonamble, and for a considerable distance north of Coonamble; while to the west of the line, on the Mara Creek, the Macquarie, the Marthaguy, and the Merri Merri, the soil is of an exceptional quality, capable not only of carrying stock in large numbers, but capable also of agricultural development. There is a feature about the line I might as well mention now, and that is the large volume of traffic—as I daresay the Committee noticed when I read my detailed statement—which would fall into the line at intermediate points. As a matter of fact, this intermediate traffic is greater in volume than that which would reach the line at Coonamble. It is a line with a prospect of more intermediate traffic than any line I have reported on. That is on account of the character of the soil, and the settlement on these creeks which intersect the line. There is very extensive settlement along these creeks. J. Harper.
16 Dec., 1897.
266. I understand from what you say that it would be more convenient for the settlers to whom you refer to reach the line midway between Warren and Coonamble than to cross the creeks to get on to the western line? Yes. This country to the west is not favourable for travelling, for you have to cross all these streams. You run out into the marshes of the Macquarie. To emphasise what I have said, I should like to draw the Committee's attention again to my revised estimate of traffic. At Tenandra, which would be a railway station on the Marthaguy, the traffic which would come into the line would amount to 1,653 bales of wool. That wool now comes into Nevertire *via* Warren. It comes down the creek along the travelling stock route, and it would join the railway line at Tenandra.
267. You say that 1,653 tons of wool which now finds its way to Nevertire would come to this railway at a point 14 miles from Warren;—how much per ton additional freight would be earned by the Railway Commissioners? I have credited 1s. 2d. for that. Though the actual earning may be small, what I wish to draw attention to is the convenience which it represents to the owners of that tonnage of wool. Although we do not get much out of it, and it does not go far to help our estimate of traffic, still it indicates the settlement of the district and its carrying capacity.
268. I was only anxious at this stage to know if you did not over-estimate? Well, this quantity of wool was actually carried. We know that it passed over the bridge at Tenandra.
269. What would be the additional cost by road from that point? I could not tell. It would be a through rate; but they certainly would not get it down from there for much under 1s. per ton per mile—about 14s.
270. Approximately, what would be the saving in carriage upon the 1,653 tons? From 12s. to 15s. per ton. That would be the saving to the squatter. Then again, take the Merri Merri Creek. Where the line crosses the creek at Bourbah, another railway station would be provided. That would be 40 miles from Warren. At that point 1,373 tons of wool would come in. Perhaps I should take first an intermediate point at Bullagreen, about midway between the two creeks. I am quite sure that even to-day the traffic that would come in at that particular point would be double or treble what we took this year, because during the year a lot of settlement has taken place in the district, a large area of land having been thrown open.
271. Could you say, approximately, what the saving on the wool would be to the sender? The distance from Warren is 30 miles, and he would save about 27s. 6d. per ton. At Bourbah, where 1,373 tons of wool would come in, the saving would be about 35s. a ton, the distance from Warren being 40 miles.
272. Then the Committee are to understand that the whole of the traffic for the district you have now referred to reaches the western railway system? Yes.
273. No new traffic will come into the western system unless it be by reason of the additional production of the district? It is possible that if no extension were made to Walgett or Collarenebri, the traffic from Walgett might come into Coonamble. It is probable that stock traffic would come in from the Walgett district.
274. Would any traffic from Walgett, in your opinion, reach Coonamble? I think it is more than likely that some of the traffic would—that is, assuming that no other line were built.
275. Is there a practicable road? Yes; in fact, it is a drier road than the road between Narrabri and Walgett.
276. Is this your evidence:—That the distance between Coonamble and Walgett is between 30 and 40 miles shorter, and the road is better than between Narrabri and Walgett? Yes.
277. Have you made a comparison without regard to the cost of construction between the suggested railways from Dubbo to Coonamble and from Mudgee to Coonamble, and the railway we have now under consideration? Only in a general way. If a line were built from Dubbo a very large volume of the traffic which I have credited to this line would never find its way on to it. If a line were constructed from Dubbo most undoubtedly the traffic which comes down the Marthaguy would never find its way there. Very nearly 30 per cent. of the traffic which I have credited to the Warren line would never find its way on to the Dubbo line.
278. If you lost 30 per cent. of the estimated traffic from the west of the proposed line, what additional traffic would come into the line from Dubbo to Coonamble from the east? Scarcely any.
279. As to the character of the soil between Dubbo and Coonamble, how does that compare with the district you have just described? There is absolutely no comparison. The land between Warren and Coonamble is infinitely better than the land between Dubbo and Coonamble. The latter is sandy, scrubby, timbered country of a very inferior character. That is until you get as far as Galargambone.
280. The surveyed line from Dubbo to Coonamble is 93 miles in length;—for what distance is the soil of the description you have just mentioned? Fifty miles.
281. How far east from the proposed line, in the direction of the Dubbo-Coonamble line, is the land good? I should think that for about 25 miles east it continues good. There is then a falling off in the quality of the land; it is not as good as it is in the west.
282. How many miles from Coonamble towards Dubbo, on the surveyed line, would be served by the proposed line from Warren to Coonamble? About 30 miles, I should think.
283. That would leave only 13 miles of good land between Coonamble and Dubbo that would not be served by the line from Warren to Coonamble? That is so.
284. Whereas the whole of the land between Warren and Coonamble is good for any purpose? That is so; with the exception of two or three monkeys, or sand-ridges, it is all magnificent land.
285. What is the area of these sand-ridges? I suppose they would represent about 2 miles in the whole distance.

- J. Harper. 286. Does any portion of the line pass through flooded country? No—nothing that would ever do any harm.
- 16 Dec., 1897. 287. Nothing between Warren and Coonamble? Those creeks occasionally overflow, but not to any serious extent.
288. And between Dubbo and Coonamble? I do not know.
289. Between Mudgee and Coonamble? I cannot say; I am not sufficiently acquainted with the country.
290. Will you be good enough to give similar information with regard to the suggested line from Mudgee to Coonamble to that which you have already given? I could not undertake to do that, as I have never looked up the information in connection with that matter.
291. You say you have travelled over the route? The country differs essentially in character. It is practically a mountainous country as compared with open plains of black-soil country. After you pass the Warranbungle in the direction of Coonamble you get into the same class of country, but for over two-thirds of the distance it is absolutely different in character.
292. Is it superior or not? Certainly not.
293. And as to the rainfall? The rainfall is better. The country is more patchy, and not so uniformly good.
294. Is it your opinion that none of the suggested routes to which your attention has been drawn, with the exception of the one now under consideration, would be profitable for railway construction? I do not think so. I am quite sure, speaking from a cursory knowledge of the traffic which comes from the district between Mudgee and Coonamble, that even if local rates were applied such a line would not pay working expenses.
295. Are you prepared to say that, making every allowance for competition, the line under consideration will more than pay working expenses and return interest upon the cost of construction? I have no hesitation whatever in saying it will.
296. In giving that reply have you a full regard for your responsibility as a railway officer? Yes; I only wish a good many of our existing lines were as profitable as I am sure this one will be.
297. So that we may regard it on commercial lines as a proposal that will not involve the Commissioners in loss, but, on the contrary, will leave a certain profit from the time of its opening, and probably an increasing one? Yes; I am absolutely sure of that from my knowledge of the district.
298. You are giving that evidence having regard to every possible adverse influence, and you have not included in your estimate earnings that are at present derived by the Railway Commissioners from the traffic that will probably reach this line? I have not included in the estimate any earnings which would represent traffic or diminished earnings on any other section of the existing lines.
299. Could you say how the additional traffic you expect will be obtained, having regard to the character of the country between Warren and Coonamble? I believe that agriculture will be gone into extensively in portions of that district. There is some magnificent land there. When I was up there, some of the people were growing crops for ordinary station use, and they have been growing them successfully for years.
300. What kind of crops? Wheat and oats. I also saw some magnificent fruit grown in that district. Wherever anyone has attempted to grow anything they have succeeded well.
301. So that your opinion is altogether favourable to the line? Yes.
302. *Mr. Clarke.*] Would the proposed line be better than either the line from Byrock to Brewarrina, or from Narrabri to Pilliga? I have no hesitation in saying it would.
303. You have already stated that the greater part of the country is fit for the growth of cereals? Yes.
304. And the rainfall, you think, is sufficient? Yes—about 19 or 20 inches.
305. At present, I suppose, it is of no use for the people to grow cereals, as they have not means of sending their produce to market? That is so.
306. They only grow sufficient for their own requirements? Yes.
307. Is it intended that this proposed line should go further north—say, as far as Walgett? I do not know; it is hard to say what the intention of the Government may be.
308. Is the country between Coonamble and Walgett good country? Yes.
309. Is it liable to be flooded? Yes; but not to the same extent as is the case on the Namoi. It does not flood up so far. In very big floods, it floods for about from 10 to 15 miles in that direction; but it is not fast water, it is still water.
310. It would not be impracticable to construct a railway at some future time? Certainly not.
311. In the meantime, should a line not be carried from Narrabri to Pilliga, the Walgett people, in order to get their produce to market would still have to use the water carriage down towards Bourke, or land carriage, as at present, to Narrabri? Unless this Committee favourably consider the other scheme submitted to them from Woolabra to Collarendabri. I may say that the traffic at Walgett is not created in Walgett itself. The greater portion of the traffic which comes into Walgett is traffic from the north and north-west of that place, and it would be better served at Collarendabri than at Walgett.
312. If a line from Woolabra to Collarendabri were constructed, a portion of the Walgett people would use that line? The Walgett people, or such of them as would be left, would use the Coonamble line. I do not make that remark in disparagement of Walgett, but in order to convey, as concisely as I can, my opinion about the town. It is an accidental town. There is nothing in its surroundings, or its location, to warrant much development.
313. We have had it in evidence that in the event of the river being navigable a good deal of traffic from Walgett and all that country would go down to Bourke? Walgett is practically the head of the navigation. It is very rarely that steamers go above Walgett. They have been as far as Collarendabri, but that is quite exceptional. There is no doubt there will always be a large amount of river traffic as far as Walgett, but Collarendabri and the district to the north and north-west of that place would undoubtedly be supplied by rail.
314. Can you give the Committee any information as to the character of the land beyond Coonamble? It is chiefly pastoral country—open plains with the ordinary acacia scrub and yarran, and occasionally salt-bush.
315. It is more of a pastoral than an agricultural country? Yes.
316. I suppose, as you proceed further north and west, the rainfall is not so good? No.
317. On that account it would be more suitable for pastoral than for agricultural purposes? Yes; neither would it carry as much stock as the intermediate country between Warren and Coonamble along the creeks I have mentioned. It is not as good country as that.

318. Would the same description apply to the country between Walgett and Collarendabri? Yes; it is all pastoral country. J. Harper.
319. Is it all the same pastoral country from Walgett to Pilliga and on to Narrabri? Between Pilliga and Narrabri there is some country which I do not know how to describe. 16 Dec., 1897.
320. What is the distance from Walgett to Warren? 133 miles.
321. The distance from Walgett to Narrabri being 114 miles, it is shorter from Walgett to Narrabri by 19 miles than it is from Walgett to Warren? Yes.
322. Is it not some 24 or 26 miles shorter from Walgett to Sydney *via* Narrabri, than from Walgett to Sydney *via* Coonamble and Warren? Yes.
323. Therefore if it became a question of getting the river traffic and the Walgett traffic to Sydney, the shorter and cheaper way would be by Narrabri? It might be as regards the traffic at Walgett town; but I should not like to say that the traffic that comes in to Walgett to-day would take the route *via* Narrabri. I am keeping in view the possibility of the Collarendabri line.
324. For what reason? From the centre of production in that district, the distance would be shorter to Collarendabri than to Walgett.
325. If they did not get the trade that accumulated at Walgett, would they lose it because it goes by river? Yes, as I stated in my previous evidence.
326. Then if the Walgett-Pilliga line would not get trade, the Walgett-Coonamble line would not get it? No; and I did not include it.
327. Consequently that is not an argument against one, nor is it an argument against the other? No.
328. But if it were a question of gathering the traffic there, and conveying it to Sydney, then Walgett, *via* Narrabri, would be the shorter route? Yes.
329. You do not base your claim upon an estimate of that character? No.
330. Your claim is that the land is much better in the vicinity of Coonamble, and 20 miles beyond that place, and there is a greater amount of settlement and production? The strongest argument I have—and I wish to emphasise it—is the character of the intermediate district which would be served by the line from Warren to Coonamble. That country is of a better character than any of the country about Coonamble, or north of Coonamble. As a matter of fact, even now the traffic which would come in at intermediate points is nearly as great in volume as that which would come in at Coonamble, and I am quite sure that in a short time it would be, perhaps, double or treble that of Coonamble. The whole of the country west and north-west of the line is of far better quality than any in the neighbourhood of Coonamble.
331. Are you of opinion that the construction of a line to Coonamble would determine, for all time, the extension to Walgett? Yes; I should think it would, assuming that the same common sense view of things were taken in the future as is taken now. But of course it is very hard to speak of the future.
332. If the line were pushed on to Coonamble, it could hardly be expected that the Narrabri line would be extended to Pilliga? Scarcely.
333. Because then there would be two lines competing practically for nearly the same amount of produce? Yes; taking the district north of Coonamble.
334. The nearer both lines got towards Walgett, of course the more those lines would embrace the whole of the traffic? Yes.
335. Therefore, I presume this Committee must consider that ultimately if it is desirable to extend the line to Walgett, and the Coonamble line is made, the extension will take place from Coonamble? Yes.
336. We have the line from Byrock to Brewarrina, which very largely involves the river trade; we have Narrabri to Pilliga, with an ultimate destination at Walgett, which also involves the river trade; there is Warren to Coonamble, also with an ultimate destination at Walgett; and there is Woolabra to Collarendabri;—there are those four lines practically to compete for the traffic in that direction? I do not know whether you would look at it in that light. I do not know that any of these lines are designed to compete for the Walgett traffic, because Walgett itself produces relatively very little traffic. I should rather say in regard to the Collarendabri line that the desire is to extend the line to where the traffic exists, which to-day comes in to Walgett.
337. There cannot be room for all these lines? Decidedly not. If I might make the suggestion, I think it would be as well to have what evidence is forthcoming in connection with the Woolabra to Collarendabri line before the Committee before deciding upon any of these proposed extensions. The Committee will find that the Woolabra to Collarendabri line has an important bearing upon the issue. It will be an important factor as regards the volume of traffic which at present finds its way into Walgett.
338. What will be the rate for scoured wool from Coonamble *via* Warren, to Sydney? For greasy wool the rate would be £3 18s., and if you add 20 per cent. to that it would give you the rate for scoured wool; but it is nearly all greasy wool. The rate for greasy wool from Nevertire is £3 12s. 3d.
339. And Brewarrina? For that we put down an arbitrary rate of 10s. The rates have been reduced since the estimate I made in connection with this line.
340. Has the rate from Narrabri been altered from 53s.? The rate to Sydney is £3 11s., and from Newcastle 53s.
341. Then Walgett, 69s.? That will be the rate from Newcastle.
342. What will it be to Sydney? Add another 18s.
343. Then from Walgett to Sydney it would be 87s., as against 78s. from Coonamble to Sydney, although the distance is shorter in the latter case? That comes about by reason of the relatively lower rate on the Western line, owing to the force of competitive traffic. The rates being lowered at Bourke they have to be lowered proportionately at other places on the line.
344. Have you been over the country from Woolabra to Collarendabri? Yes.
345. And right down the river to Walgett? No; I have not been between Collarendabri and Walgett—I came the other way.
346. You have intersected it again from Narrabri to Walgett? Yes.
347. In fact you know the country almost from the Queensland border to Brewarrina? Yes; I know the whole of that country. I have travelled up the river to Brewarrina, and as far as Walgett. I have travelled between Coonamble and Walgett; between Walgett and Pilliga; from Narrabri to Wee Waa and Collarendabri; and from Woolabra to Collarendabri and the Queensland border.
348. Having the advantage of that personal knowledge, together with very accurate information as to the produce of the district, are you of opinion that the country would be best served by the extension of the

- J. Harper. Coonamble line? Yes; that is my firm conviction. I have no hesitation in giving that as my honest firm conviction to this Committee for its information.
- 16 Dec., 1897. 349. *Mr. Fegan.*] You said that the wool rates have been reduced since you made your report in 1896? Yes.
350. The Chairman asked a question yesterday of Mr. McLachlan, and that gentleman said you could answer it. The question was:—"At what rate can you carry a ton of wool a hundred miles?" I do not think that any one could answer that question, unless you could tell him how much wool you could give. It all depends upon how much you could give.
351. What would you carry wool from Pilliga to Newcastle for? Sixty-one shillings.
352. And to Sydney? Seventy-nine shillings.
353. That would be a difference of 18s. per ton? Yes.
354. So that if a line were constructed from Walgett *via* Pilliga to Narrabri, it would be really cheaper to bring wool by rail to Sydney then to take it to Newcastle and tranship it from there? That is done to-day.
355. It comes down to Sydney? Yes.
356. Could not the Railway Commissioners compete successfully for that trade? They could compete for it, but I do not suppose it would be worth their while.
357. It would not pay to do it? I am afraid it would be said that we were decentralising in opposition to Newcastle.
358. Cannot the same be said of the Commissioners' policy in running omnibuses off and so forth? I do not know what the Commissioners' policy is.
359. You say that the country between Warren and Coonamble is much better than the country around Coonamble? Yes.
360. If that be so why is it proposed to take the line as far as Coonamble where there is inferior country, which would be to a certain extent a drag upon the other portion of the line? It will not be a drag upon it by any means. An acre at Coonamble is worth any 5 acres at Walgett.
361. But why propose to take the railway to Coonamble if the land there is inferior? For the purpose of meeting the requirements of the Coonamble district. It is an excellent district. I only say that relatively the land is not as good there as it is lower down.
362. When you were before the Committee in connection with the Nevertire to Warren line you expressed yourself as doubtful whether it meant an extension a little later on from Warren to Coonamble? I cannot remember exactly what I said. What I most probably said was that I was doubtful whether the extension to Coonamble was in contemplation. As a matter of fact I know it was not, as far as I was concerned.
363. The same thing may be said now with regard to Walgett—that there is no idea of continuing the line from Coonamble to Walgett? I can tell you definitely that when I gave evidence here on the subject of the Nevertire to Warren line, I knew nothing about the extension to Coonamble.
364. Is there plenty of timber along the proposed line? No; there is no timber that would be of any value for railway purposes. You rarely find good timber in really good country. I mean out west. There was some very good timber between Dubbo and Galargambone, but that has been cut out; and east, in the direction of Warranbungle and Coonabarabran, there is good timber.
365. According to your estimate the line will pay as soon as constructed? It will pay working expenses as soon as constructed.
366. And you think that the construction of the line will lead to a development in the growth of cereals? Yes; and, also, that more stock will be carried between Coonamble and Nevertire—that is to say, fat stock. There are a great many small selectors on the creeks in the intermediate country, and it costs them as much to drive 100 or 200 sheep to be trucked at Nevertire as it would cost them to drive 1,000.
367. In the event of either of the rival routes being adopted in preference to this, would not a great deal of the trade east of Coonamble go down the Western line? Yes; but the traffic further west would go into Warren.
368. I suppose the Warren line is not yet completed? It will be handed over to us on the 1st January.
369. There is no doubt about that being a paying concern? No.
370. *Mr. Hassall.*] The whole of the country lying north-west of the extension from Warren to Coonamble right down to the river is of excellent quality? Yes.
371. You have travelled a good deal through New South Wales on your various tours of inspection in connection with proposed extensions, and also in relation to lines already constructed? Yes.
372. Will you give us your definite opinion of the character of the country extending, say, from the proposed railway line to Bourke, and that lying between the Bogan, the Mara Creek, the Macquarie, the Marthaguy, the Merri Merri, and further over on the Castlereagh? My opinion is that it is practically the pick of New South Wales.
373. You think a line constructed from Warren to Coonamble would tap a very large portion of it? I do. The country you have just mentioned is very difficult country to cross in the direction of the Western line, but you can run parallel with the rivers and get comparatively easy travelling.
374. Therefore, a line intersecting that country between Warren and Coonamble would be practically an outlet for all the country lying between the rivers, and when it was not practicable to cross the rivers and get to any other point on the existing railway, say, either at Nyngan or Byrock, the traffic would come down in a south-westerly direction, following the course of the rivers, to the proposed railway? That is practically what the line is to do. The traffic will come down the Marthaguy Creek, the Merri Merri, the Macquarie, and the Mara Creek. This traffic has always had to cross the river at Warren.
375. There is a large amount of traffic coming in there under existing conditions? Yes.
376. Do you think the extension of the railway to Warren has had any effect in increasing the traffic at that point? The line is not opened yet.
377. Have you any knowledge of the country lying between Coonamble and Narrabri? I have been on both edges of it—I have not been through it.
378. How far does the good country extend in a north-easterly direction from Coonamble? About 35 miles.
379. That is out towards Baradine Creek? Yes; and Urawilkie.
380. From there across to Narrabri the country is rugged and scrubby? Yes; chiefly brigalow.
381. And the country from there towards Pilliga is similar in character? Yes.
382. And the country round Baradine is also scrubby? Yes; very bad country.

383. So that in a north-east and north-north-east direction from Coonamble the whole of the country is of a scrubby and inferior character? Yes.
384. And certainly not suitable for small settlement? No.
385. Do you think any extension from Narrabri to Pilliga would serve the Coonamble country? Certainly not. If a line were built to Pilliga to-morrow the traffic from Urawilkie, which is the extreme eastern boundary of the Warren to Coonamble sphere, would, I am sure, come into Warren.
386. And the whole of the traffic would follow the course of the rivers, and come into Warren as it does at the present time? Yes.
387. Do you think any extension to Walgett would serve any great portion of that country? No; the people would not go back to Walgett. The bulk of the production in that district is south of Walgett.
388. The country around Walgett is rather low-lying, is it not? Yes.
389. And I think you said that the traffic on which Walgett practically depends, is from country lying north and north-west of Walgett? Yes.
390. Is the country from the north of the Barwon, out towards the Narran, superior country to that round about Walgett? Yes; it is all fattening country out there.
391. And there is a very large extent of it? Yes.
392. Would a line from Byrock to Brewarrina serve this country as well as a line from Warren to Coonamble? No; I have not included a single station as coming into this system which would come into Brewarrina, were the line built to-morrow.
393. So that practically your estimate is based upon the traffic that must come in to some point between Coonamble and Warren? Yes; it would all come into Warren if a line were built at Brewarrina, and also to Pilliga.
394. *Mr. Roberts.*] Might I ask you to make it a little more clear as to why you do not think it necessary to connect Walgett with the railway system of the Colony? Well, there is nothing in it. As I pointed out just now, the bulk of the traffic which reaches Walgett, and which has created Walgett, is produced in the north and north-west, and not in the immediate vicinity of that town. This traffic has passed through Walgett until recently; but now a great portion of it passes through Collarendabri or goes to Moree. They have had a river, and they have had comparatively cheap freights at Walgett, and these conditions have created Walgett as a centre.
395. I was under the impression that the reason you did not recommend Walgett for railway communication was that you would have to compete with the river traffic? That, of course, was one reason—that Walgett was already supplied with means of communication by river.
396. And if the suggested extension from Woolabra to Collarendabri were carried out, there would still be less necessity for a railway to Walgett? Yes.
397. In regard to the area of country between the Narrabri-Moree line on the one side, and the Barwon River on the other, is the whole of that country similar in character, or is some part of it a better class of country? It is all good country on the north of the Namoi.
398. Is it all similar? Yes; it is all good country.
399. Would a line from Narrabri to Collarendabri *via* Wee Waa, go through the same class of country as the line from Woolabra to Collarendabri? Yes.
400. How many miles north of Coonamble, towards Walgett, does the good country extend? To within about 20 miles of Walgett. It is somewhat inferior pastoral country when you get to Walgett. It is far better country than that between Walgett and Pilliga.
401. *Chairman.*] What is the freight from Morpeth to Sydney by steamer? I think about 10s. or 12s. a ton.
402. And from Newcastle to Sydney? About the same.
403. And the freight by rail from Morpeth to Sydney—for wool, for instance? You can take it as being 18s.
404. And from Newcastle to Sydney by rail? Practically about the same.

J. Harper.
16 Dec., 1897.

FRIDAY, 17 DECEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHEBY.
The Hon. JAMES HOSKINS.
The Hon. CHARLES JAMES ROBERTS, C.M.G.
The Hon. WILLIAM JOSEPH TRICKETT.
The Hon. DANIEL O'CONNOR.
HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
JOHN LIONEL FEGAN, Esq.
THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.
FRANCIS AUGUSTUS WRIGHT, Esq.
FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Warren to Coonamble.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and examined:—

405. *Chairman.*] Have you inspected this line? Yes.
406. You have a statement to make, I presume? I do not think I have anything to add to Mr. Hickson's statement. I can hand in a detailed estimate of cost of the line.
407. *Mr. Clarke.*] Some time ago it was estimated that the line from Warren to Coonamble would cost £177,000; but that estimate has since been reduced to £150,000;—will you explain the reason of that reduction? The later estimate is the revised estimate, after I had gone over the line and compared the prices.
408. Do you think the proposed route from Warren to Coonamble is the best that could be obtained? Yes. The line has the advantage of going through excellent country, and it is the cheapest connection.
409. Can you give us any opinion in regard to a line from Mudgee to Coonamble, and also, from Dubbo to Coonamble, as compared with the line now before the Committee? I have been over the Mudgee to Coonamble

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Coonamble route, and the country that line passes through is, for the most part, very excellent in character, but the population is comparatively sparse, and most of the land has been alienated. The length of the line is so great, that on that account alone it would be a much more costly connection. I think Mr. Hickson has given the Committee the figures showing the comparative cost of reaching Coonamble by the three routes mentioned.

410. Are there any great engineering difficulties on the line from Mudgee to Coonamble? No. In Mr. Hickson's report it was stated that the ruling grade from Mudgee to Coonamble is 1 in 60. That is a clerical error; it should be 1 in 80.

411. The line from Mudgee to Coonamble being longer, and through more difficult country, it costs considerably more than the proposed line from Warren? Yes.

412. But would not the distance to Sydney be shorter? There would be a saving in total mileage travelled of about 80 miles.

413. Would that shorter distance compensate for the difference in cost? No; the cost of the Mudgee line would be more than three times the cost of the Warren to Coonamble connection.

414. Can you give us any information in regard to the suggested line from Dubbo to Coonamble, as to the cost of the line, and the country through which it would pass? The cost has already been furnished by Mr. Hickson. The country between Dubbo and Gilgandra is not of a particularly good character. A good portion of the route goes through ridgy ironbark country.

415. Is the distance to Sydney by that route shorter than by the route *via* Warren? You save 30 miles by going *via* Dubbo, as compared with Warren.

416. Would the cost be much greater? The cost is rather more than a third in excess of that of the Warren to Coonamble line.

417. If a line were constructed from Byrock to Brewarrina, would there be any necessity for the proposed line to Coonamble? I do not think it would make any difference. This line would have merits if there were no traffic to come in from any distance beyond Coonamble.

418. If a line were constructed from Narrabri to Pilliga, would it be of any benefit to the people about Coonamble? No, I think not; I do not see how it could.

419. Do you know the character of the country between Narrabri and Pilliga? No; I have only been a few miles beyond Narrabri, down the river. I have not been as far as Pilliga.

420. Do you know whether it is the intention of the Railway Commissioners, if the line is made to Coonamble, to recommend that it should be carried as far as Walgett? I do not think they are at all anxious about it. That may be left to the remote future.

421. Would a line from Woolabra to Collarendabri suit the settlers about Walgett;—do you think that the Walgett people would send to Collarendabri if the line were made? I should not think so. I do not think they would go up the river to take the train at Collarendabri.

422. *Mr. Lee.*] Would you be good enough to give us the details of the cost of construction of this line? The statement giving details is as follows:—

WARREN TO COONAMBLE.

Revised estimated cost of a single line of railway 63 miles 32·71 chains in length with 60 lb.-rails.

Superseding Estimate of 28/4/96.

Description.	Estimated cost.	Average per mile.
	£ s. d.	£
Earthworks	12,504 0 0	197
Timber bridges and small timber openings.....	9,024 16 0	142
Bridge over Macquarie River.....	6,000 0 0	94
Level crossings, cattle stops and fencing.....	2,555 0 0	40
Permanent-way materials.....	40,006 10 0	631
Freight.....	10,137 9 9	160
Platelaying at 1/- = £5,580.....	34,596 0 0	546
Ballasting (½) at 4/- = £5,580.....		
Sleepers at 3/- = £23,436		
Station works including sidings.....	4,900 0 0	77
Station buildings, passenger buildings "B" £1,000; waiting-sheds, £690; station-masters' houses, £1,060; goods-sheds, £1,135; platforms, £600; loading banks, £700; trucking-yards, £1,500; engine-shed, £500; turntable, £450; coal stage, £200; carriage-shed, £200; 5-ton crane £200; 20 ton-weigh-bridges £825.....	9,060 0 0	143
Water supplies.....	1,650 0 0	26
Telegraph.....	951 2 8	15
Mileage and gradient posts.....	951 2 8	15
Miscellaneous	1,000 0 0	16
	£133,336 1 1	
Engineering and contingencies, 12½ per cent. nearly	16,663 18 11	263
Total cost.....	£150,000 0 0	...
Average cost per mile	£2,365 12 0	...

423. Do you think that is an ample estimate? Yes, I think it is quite sufficient. The country is in many places rather wet, but I have allowed more in earthworks than I have done in the case of some of the other lines, so as to provide for that. I have also allowed sufficient for timber bridges and small timber openings. I expect to do almost entirely without ballasting. The price for ballasting is put down at a very low figure, because I anticipate that we might be able to use a little sand, perhaps, here and there where the country is wet. Good ballast would have to come off the main line, probably, and would be costly. But the experience of this class of railway so far has been that ballasting may be almost entirely dispensed with. I should require the sum of £5,580 put down for ballasting, in order to provide for station yards and for some of the soft places along the line.

424. That is equal to about one-fourth of the whole? Yes; it is just a rough estimate of what might be required.

425.

425. Have you satisfied yourself that this is a line that can do without ballast? Yes.

426. You have admitted that it is a wet country, and that you would have to provide extra openings for water-ways; would not that of itself necessitate extra ballast? No, I do not think so. I should put ballast at the bridge ends and in the station yards.

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427. If, in the future, the traffic should become so heavy as to necessitate ballasting, do you contemplate that it should be done out of revenue, and not out of loan? I have not provided in the estimate for any future improvement of the line. I think that can very well take care of itself. If the revenue did increase largely, and the line wanted strengthening, it might pay to strengthen it under the circumstances. I think, then, the money should be provided in some other way than out of the original vote.

428. It is estimated that this line will show a small surplus from the date of its opening. The inference would therefore be that the traffic would be larger than in the case of most of the lines of this character, and also that the traffic would grow considerably in the course of years. If that should eventuate, will the class of line you are providing for be sufficient to carry that extra traffic? Yes; it would be quite sufficient to carry a large increase of traffic.

429. Without ballast? Yes.

430. The one difficulty only which you have to provide against is the occurrence of seasons when there might be an excess of rain, or very heavy rain for short periods? Yes.

431. Do you estimate that on the whole it would be cheaper to rebuild any portion of the line that might be destroyed than to make a permanent ballasted line in the first instance? I do not think the question of ballasting is affected by that consideration. The desirability or not of ballasting really depends upon the amount of traffic the line carries, and not upon its liability to floods. The formation level of the line has been raised above flood-level throughout—so far, that is to say, as we have been able to obtain information—and I believe it is perfectly safe, and that the water would not rise up to the top of the formation in any place.

432. Is the country somewhat similar to that between Nevertire and Warren—I do not mean as to its capabilities, but for railway purposes? Yes; it is not at all unlike it.

433. Have you had any experience in regard to rainfall between Nevertire and Warren? Yes; we had some heavy rains about three months ago.

434. Has the result been sufficient to justify you in continuing that class of construction? Yes.

435. That short line, I suppose, would be a good object lesson? Yes.

436. What the Committee would like to be assured of is that they are not entering upon a class of comparatively light line, which, though it might be light in expense so far as initial cost is concerned, might eventually involve very heavy expense to maintain and strengthen it? I should like to say with regard to these light lines that, so far, the maintenance expenses have been, if anything, rather lower than those of the cheapest lines that preceded them. The cost per mile per annum for maintenance is about £30, which is very low indeed. I attribute this, of course, not to the absence of ballast, because ballast renders the maintenance of railway work much easier than the want of it, but to the lowness of the embankments. It is far easier to maintain a road over a low embankment than over a high one. A low embankment has not far to settle; it cannot settle so unevenly as a high embankment, and I think that is where a great saving in maintenance is effected. The line does not get out of order so easily as where the embankment is higher.

437. Which of the light lines now in use do you rely upon as supplying sufficient data to justify the continuance of the system? There are the lines from Narrabri to Moree, Jerilderie to Berrigan, and Parkes to Condobolin as far as Bogan Gate.

438. In all these instances have the estimates been realised;—has the cost of maintenance been in excess of your estimate? I do not think I have ventured any opinion as to the cost of maintenance. I was somewhat doubtful at first as to whether the maintenance would not be really higher; but I think the results have proved the contrary, and that it has been, if anything, lower.

439. Have you had sufficiently severe tests of weather on each or any of these lines to justify you in continuing to adopt the light system of construction for the extension of other lines? Yes.

440. In other words, do you think we have passed the experimental stage in our light lines? Yes; I consider that the advantages of the system have been amply proved.

441. Having experienced that advantage, are you now prepared to tell the Committee that they can adopt the same system in the case of other extensions? Yes; in the western country.

442. In your estimate there is a large bridge provided for over the Macquarie, at a cost of some £6,000? Yes.

443. Is that of timber? No; I have provided for a steel bridge there.

444. For a steel bridge, does not the amount appear to be somewhat low? No; I do not think so.

445. Is the line to be fenced? No; for the greater part of the distance it goes along the travelling stock route.

446. And in that case the adoption of cattle-stops would be sufficient? Yes.

447. Have you found those cattle-stops effective? On the whole they are fairly effective.

448. They are very awkward are they not for the crossing of stock? I have not heard so.

449. Is there not a tendency for the stock to wander out on to them? I have not heard that such is the case; it may be so.

450. You have no reason to suppose, at all events, that the further adoption of cattle-stops will be detrimental to the running of the trains? No; I have had no complaints, and I have not been asked to attempt any improvement in this respect.

451. Do you know whether night traffic has been carried on on any of the lines unfenced, and where cattle-stops have been used? I am not aware of it.

452. So far as you know it has been day traffic, when the danger is reduced to a minimum? Yes; the trains that are run to schedule time are day trains.

453. Do you intend to pursue the same policy with regard to station buildings, and use only those of the cheapest possible character? Yes.

454. Do you think your estimate is ample to cover that item on this line? Yes.

455. Does it not appear very small? I think it is sufficient for a commencement. It makes the line quite workable.

456. How does this line compare in cost with Narrabri to Moree, Jerilderie to Berrigan, or Parkes to Condobolin? It is rather higher.

- H. Deane. 457. What reason do you assign for that? I can show the reason by comparing the items of cost.
- 17 Dec., 1897. 458. As the country is somewhat similar between Narrabri and Moree, perhaps it would be fair to make a comparison with that line? Yes; it is very difficult to make a comparison between any two lines, because the circumstances differ in each case.
459. What is the difference in cost between this line and the Narrabri to Moree line? The cost is cheaper in this case than in the case of the Moree line. That line is estimated to cost £2,409 per mile.
460. *Mr. Hassall.*] Did it cost that? No; it will not cost that sum. The accounts have not been squared up yet; but there will be a considerable saving on the Narrabri to Moree line.
461. *Mr. Lee.*] Then this would appear to be the cheaper line? Yes; and I hope there will be a saving also in this case.
462. In anticipating a saving upon your estimate, of course you include the cost of a steel bridge across the Macquarie? Yes.
463. You do not intend to substitute a steel bridge for that, and reduce the cost in that way? No.
464. You anticipate an actual saving in the cost of the contract? Yes. I do not think there is a very large saving to be effected by the use of timber in this case. The channel of the river is pretty deep, and the piers will be expensive, and as you have to go in for substantial piers, it would be better and very little more expensive to have a good permanent superstructure on the top.
465. Do you think there is any portion of this line of which the cost of construction may, from unforeseen causes, exceed your estimate? That is very difficult to say. I might have to put in more openings, for instance. I might find that the timber bridges and openings, and culverts, were not quite sufficient, and I might have, for those, to draw upon the contingencies. But I think the total estimate is sufficient.
466. Under the Public Works Act you will have a margin of 10 per cent., equal to £15,000, above your estimate;—do you think that margin will be sufficient to enable you to construct this line? I am quite sure it will. I hope to be able to do without that £15,000.
467. Are you prepared to assure the Committee that this estimate, under ordinary circumstances, is not likely to be exceeded? Yes. I may say that it is possible there may be an increase in the item of station accommodation. If it should turn out that the station accommodation provided in the estimate is not sufficient we must, of course, spend more money upon it; but that would really mean an advantage to the line, because it would show that the Railway Commissioners' estimate of traffic had been underestimated. If we should have to spend, say, £2,000 or £3,000 more on station buildings and station works it would be because the returns from traffic were so much greater than was first anticipated.
468. Even if that should happen the additional cost would be, so far as the general cost is concerned, but a nominal amount? The 10 per cent., at any rate, would cover everything. I am sure of that.
469. So far as the additional station accommodation is concerned that, of course, would not run into very much? It might run into a good deal. Station accommodation does not mean merely buildings. It means, perhaps, buildings of a larger character, and it means a good deal of extra length of sidings and road approaches and extra metalling, so that it might easily run into £2,000 or £3,000.
470. In that case you would be well within your mark? Yes.
471. Taking the position of that country from a railway point of view, have you any knowledge in your possession that would lead you to believe that Coonamble could be reached in an easier and cheaper way than from Warren? No; I am sure it could not.
472. Do you think a line if constructed from any other point, such as Dubbo or Mudgee, although longer, could be as cheaply constructed and would be as efficient when constructed? No; I have carefully gone into those estimates. The cost would be very much higher than in the case of the Warren to Coonamble line.
473. Do you view the fact of a line being carried to Coonamble as determining the reaching of Walgett in the future? Not necessarily. I think the natural connection with Walgett would be *via* Coonamble. Of course it could always be made by Narrabri.
474. If a line were constructed to Coonamble, and if it became necessary in the future to give a line to Walgett, would it not follow as a matter of course that that extension to Walgett would be from Coonamble? I think it probably would be from Coonamble. There is very little doubt about it.
475. Are you of opinion that the necessities of that part of the country demand two lines to open it—one from Narrabri *via* Pilliga and the other from Warren *via* Coonamble? That touches a part of the subject that I have not very carefully considered.
476. If, in the future, it should be determined to extend the line from Coonamble to Walgett, could the line between these two points be constructed at the same cost per mile, as between Coonamble and Warren? No; the cost would be greater between Coonamble and Walgett.
477. For what reason? Partly because it is further off, and the freight on materials would be heavier; but largely because a great portion of the country is very liable to floods, and construction would be more costly,—there would be more earthworks and more water-ways to provide for.
478. Then you look upon the cost of construction in the case of the line now under consideration as being one that must not guide the Committee in any consideration with reference to an extension to Walgett? I do not see that it need.
479. As a matter of fact the difficulties are much greater, and the cost will, of necessity, be greater beyond Coonamble? Yes.
480. Do those conditions apply between Pilliga and Walgett? I am not quite certain. I think the estimate for a line between Pilliga and Walgett was £2,200 per mile.
481. That would be about the estimated cost of this line to Coonamble? Yes; but the estimate from Coonamble to Walgett amounts to about £2,500 per mile.
482. Have you had the country explored between Coonamble and the junction of the Castlereagh and Macquarie, for some distance on this side of the Barwon—as to the possibility of railway construction? No.
483. Have you had a line explored, say, between the Marthaguy and the Castlereagh? No; there has been no demand for one.
484. You are not prepared to say at present, whether, if it became desirable to connect with the Barwon River, it would not be better that the connection should be made between the Castlereagh and the Marthaguy, than at Walgett? I do not know that I can express an opinion of any value upon that point. You get into a great bunch of rivers following down between the Castlereagh and the Marthaguy; and I think

think that, at the upper end, railway construction would be a very troublesome matter, as there is so much flood water.

485. You offer no opinion as to the policy of extending this line to Walgett? No.

486. You are quite clear that if the line is decided upon to Coonamble, the conditions are such that your estimate can be relied upon? Yes.

487. And that the provision made would be sufficient for all purposes, and for all the traffic that may come upon the line? Yes.

488. *Mr. Wright.*] Have any of your surveyors reported as to the possibility of inundation in portions of this country. Have you had any report as to the highest known result of any rainfall? The results of the floods are always marked on the sections, and they are given by the surveyors, and the formation level is fixed accordingly.

489. The results of floods known to themselves or known to other people? They always have instructions to make the widest inquiries.

490. So that your surveyors have made all possible inquiry from local residents as to the highest known floods in the district? I believe they have.

491. Could you give the Committee any information as to what area of that country has been covered at any one period by water? No, I cannot.

492. Your inquiries have not extended to that length? No; it has not been put in that way.

493. You simply ask your surveyors to tell you how near the highest known flood has come? Suppose floods reach out from a particular river or creek, across to the route of a line, the practice is to keep clear of that line—keep on the higher ground; and if you have to cross a creek or river which becomes very much flooded you seek the narrowest part of the flooded area. We have invariably done that.

494. And you are satisfied that the level given for this railway is above any chance of washaways—not temporary wash-aways, but those on an extensive scale? So far as it is humanly possible to tell, I think the information is perfectly correct.

495. Your proposed line is, to all intents and purposes, a surface line? Yes.

496. It is laid on the surface, with the exception of a few depressions, and so forth? Yes.

497. Do you give anything above the surface? Yes; from 6 to 18 inches.

498. Suppose you have a stretch of level country a mile or twenty chains not flooded? Then the average would be about a foot—between 9 inches and a foot if the ground were free from flood.

499. So that your rail-level at all times is free from water? Yes.

500. What provision have you made for bridging the Macquarie at Warren? The headway of the bridge over the Macquarie is 32 feet above the bed of the river.

501. Have you any information as to the highest known flood in the Macquarie at this place? We have the information, but I cannot tell you at the present moment.

502. Allowing 32 feet headway, that would give you 6 feet clear above the highest flood level? About 5 feet.

503. You are satisfied that you have made sufficient openings and given sufficient height at all the crossings of the rivers and creeks? Yes.

504. What are you going to build the bridge with over the Macquarie? I propose to have a steel superstructure.

505. And concrete piles? Piles of iron and concrete.

506. Are you going to do the same over the Marthaguy? Yes, I think so.

507. Those are points, I suppose, not yet determined upon? It is rather premature to decide them.

508. If it were determined to substitute steel for wood in any of these important openings would that add anything to your estimate of cost? No; I have provided for that. After all it does not make so much difference as one might expect where the channel is deep, the piers being a very important portion of the cost.

509. I see by the plan that you do not go into the town of Coonamble? No; we keep on the southern side of the Castlereagh.

510. How far is your terminal point from Coonamble? It is close to it. There is a bridge across the Castlereagh into Coonamble, and the railway station will come up almost to the bridge.

511. Why have you not crossed into the town—to avoid the expense of a bridge? Yes. There is no necessity for it; the road bridge is quite close to the town.

512. Do I understand that you contemplate modifying your plan somewhat so as to bring the terminal point of the railway nearer to the town of Coonamble? The site of the terminal station is about 20 or 25 chains from the bridge and about 50 or 60 chains from the centre of the town.

513. So that your terminal point would be something less than $\frac{1}{4}$ of a mile from the centre of Coonamble? Yes.

514. As an engineer can you say whether it would be cheaper for the State for all time to haul goods over 46 extra miles of railway, without any increased rate for haulage, than it would be to spend £100,000 more money in making a more direct route to Coonamble? I could not answer that question without the necessary data. I should want to know the amount of traffic as a basis of comparison, and whether it was to be assumed that the total mileage would be the same in both cases.

515. I assume that the charge to Coonamble is a fixed quantity, so much per ton irrespective of the way the goods are taken. Then I want to know whether it would not be better for the State to spend £100,000 more to make a direct line, and avoid that perpetual extra haulage of 46 miles? I should have to know the traffic and other data.

516. You only deal with the purely engineering aspect of the question? Exactly.

517. You have been asked to report and make trial surveys of this line, and your answer to that inquiry is, that the line can be constructed for a certain sum of money, that it is easy to construct, and that it is good country for railway construction? Yes.

518. As to whether it is the best country or not in the interests of the State, you do not venture an opinion? No; I have pointed out that it is the cheapest way, and that it is very good country.

519. It is the cheapest route by which you could reach Coonamble? Yes.

520. The distance is shorter and the cost is less than in the case of any other projected route? Yes.

521. About the prolongation of the line—have you ever visited Coonamble? Yes.

522. Have you been between there and Walgett? No; I have not been further than Coonamble.

H. Deane.
17 Dec., 1897.

- H. Deane. 523. Have you any report from your officers on the country between Coonamble and Walgett? Yes; there are reports.
- 17 Dec., 1897. 524. Am I right in assuming that the country is liable to very serious inundation? A great deal of it.
525. And therefore railway construction would be an expensive thing? The floods over a good part of the length, I think, are not serious. They are extensive, but would not endanger the stability of the line.
526. But they would necessitate rather costly works, would they not, in comparison with the line under consideration? I have put down the cost from Coonamble to Walgett approximately at £2,500 per mile, which is about £140 per mile more than the cost from Warren to Coonamble.
527. Would you be surprised to hear that the whole of that country, with the exception of a very few miles, is sometimes 7 or 8 feet under water—the country generally? Yes; but I should not go for those places which are 7 or 8 feet under flood.
528. But would you not have some difficulty in avoiding them; I have seen it 25 miles wide? I think the difficulties are somewhat exaggerated.
529. However, so far as your reports are concerned, and basing your opinion on the reports given to you by your officers, your opinion is what you have just stated? Yes. I have not been over the country, and I do not like to express any further opinion than that—except that you can get a safe line.
530. You have been over the Mudgee to Coonamble route? Yes.
531. Have you made an estimate of cost? Yes.
532. Is it long since you made that estimate? No; it was revised, I think, about eighteen months ago, after I went over the line.
533. Do you think any further reduction could be made in your estimate of cost? No; I should not like to say it could. You cross several ridges running at right angles to the line, and it costs money to get up and down those with good grades.
534. In your report you state the ruling grade is 1 in 80? Yes.
535. Is not that, from an engineering point of view, a good enough grade to carry any traffic over? Yes; that is a good grade.
536. There is no difficulty in carrying any traffic over a grade of that nature? Of course it is better to have a grade of 1 in 200 than a grade of 1 in 80.
537. But there is no difficulty in a grade of 1 in 80? No; you can take a long train over it, with heavy engines.
538. So that as far as grades are concerned there is nothing to be said against that particular route? No.
539. And the country, I understood you to say, is fairly good? Yes, for the most part it is very good. I examined the line with the view of seeing whether a grade of 1 in 80 could be substituted for 1 in 60, and I decided that it could; and in going through the estimate I found that, by allowing for an addition to the earthworks, which the adoption of the 1 in 80 grade would involve, prices having gone down in the meantime, the cost of the line would not be increased. Therefore I adhered to the total estimated cost which was previously set down; but I substituted a grade of 1 in 80 for 1 in 60.
540. *Mr. Hoskins.*] Would you like to run a heavy goods train over a grade of 1 in 80 on a light line? No.
541. *Mr. Wright.*] You are aware that there is no interior traffic in New South Wales that necessitates the employment of very heavy trains? I think it is desirable to have easy grades if you can. If the traffic enormously increased, so as to necessitate the use of long train loads and heavy engines, you would of course have to put down heavier rails, but still the earthworks would be there ready for you. The grades would be ready.
542. *Mr. Hoskins.*] And you would use more ballast? Yes; but this is a line that would be capable of improvement at very little expense.
543. *Mr. Wright.*] Is there any traffic conducted at present in New South Wales on any line that could not be carried over that line with a 1 in 80 grade with perfect safety? I am not intimately acquainted with the conditions of traffic.
544. With regard to the surveyed line from Dubbo to Coonamble, the ruling grade there is 1 in 75, and the curves are 20 chains? Yes.
545. You have been over that country? I have not been between Dubbo and Coonamble. I know the class of country, because I have approached it almost to the point where it cuts the Castlereagh in coming up from Dubbo, and I have been a considerable distance out from Dubbo along the road. I have not been right across, but I know the class of country. The estimated cost is given at £2,215, and it is described as a fairly level route.
546. A portion of that route is also liable to inundation, is it not? I do not think so. When you get near the Castlereagh of course you have to look out for floods.
547. In fact, from whichever way you approach Coonamble, there is a certain part of the country subject to inundation to some extent? There is no doubt that wherever you get near a river you have to look out for floods, and the only thing to do, if you can, is to keep far enough back away from the river to avoid them. It is stated in the surveyor's report that some of the line will be subject to flooding; but of course that goes without saying, for you can scarcely get a line anywhere on which some of the land will not be subject to flooding.
548. The cost of the line from Dubbo to Coonamble is about £57,000 more than your estimate of the Warren to Coonamble line? Yes.
549. And the distance from Coonamble to Sydney *via* Dubbo is 46 miles less than *via* Warren? Yes.

MONDAY, 20 DECEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.	HENRY CLARKE, Esq.
The Hon. JAMES HOSKINS.	CHARLES ALFRED LEE, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	JOHN LIONEL FEGAN, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	THOMAS HENRY HASSALL, Esq.
The Hon. DANIEL O'CONNOR.	GEORGE BLACK, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Warren to Coonamble.

George Charles Yeo, Draftsman, Stock Branch, Department of Mines, sworn, and examined:—

550. *Mr. Lee.*] When you were last before the Committee you gave us the stock returns in connection with the proposed extension from Byrock to Brewarrina, and those stock returns embraced all the district north of Brewarrina? Yes.

G. C. Yeo.
20 Dec., 1897.

551. In preparing your returns in connection with the proposed line from Warren to Coonamble, have you taken care to separate the statistics from those you previously gave? Yes.

552. Can you give us those statistics in detail? Yes; I have a map here showing the area (tinted pink) that will be affected by the proposed railway, and which joins on with the area that will be affected by the proposed Narrabri to Pilliga railway, the particulars of which were given on a former occasion. The area tinted pink and affected by the proposed line comprises about 2,800,000 acres. The boundaries of this area are as follows:—It extends about 50 miles north of Coonamble, 40 miles to the west of Coonamble, and 30 miles to the east of Coonamble.

553. Could you give us the particulars in regard to the stock in the area mentioned? The number of stock in the area tinted pink on map, marked A, from the year 1893 to 1896, inclusive, is as follows:—

Year.	Horses.	Cattle.	Sheep.
1893	6,934	16,989	1,829,205
1894	7,269	21,842	1,882,465
1895	7,131	19,484	1,675,505
1896	7,574	21,252	1,769,095

I have also a return of the sheep shorn in the same area in the year 1896, and it shows the following particulars:—Sheep shorn in the grease, 1,044,105; scoured, 330,000; lambs shorn in the grease, 200,000; scoured, 100,000. The average clip was: Sheep in the grease, 6 lb. 3 oz.; scoured, 4 lb. 2 oz.; lambs in the grease, 2 lb. 2 oz.; scoured, 1 lb. 4 oz. The weight of the clip was 3,737 tons. That was for the year 1896. The next return I have shows the stock traffic passing through Coonamble during 1895 and 1896, inclusive. This represents stock coming from down Walgett way, drifting through Coonamble, and making up the Castlereagh, perhaps to Dubbo, Mendooran, or on towards Mudgee. In 1895, there were 750 horses, 8,000 cattle, and 210,000 sheep; in 1896 there were 680 horses, 6,000 cattle, and 200,000 sheep.

554. Those are stock that have actually passed under the observation of your inspectors for that district in the years mentioned? Yes; the stock went through Coonamble.

555. Is there any particular reason why the stock should drift from the western country towards Coonamble? One of the main stock routes passes through Walgett, and up the Macquarie.

556. Main stock route from where? It would come from the Queensland border—from Brenda; some of the stock might come from Mungindi, down the Barwon, and branch off at Walgett.

557. I presume there is an object in having that stock route;—is that object because the markets lie east of Coonamble? I could not say whether that was the object.

558. But you know pretty well all the routes that stock take to get to market now—to the various depôts in different parts of the country;—Dubbo used to be a very large depôt; is it so now? Yes; Dubbo is a very large depôt at the present time.

559. That would be one reason why the stock come that way? Yes.

560. And the other reason would be because as the lines extend out west the stock would come within the influence of railway trucking? Yes.

561. Do you know of any reason that would lead you to suppose that the route for these stock would be diverted? No; not off that road.

562. It is fairly well watered country, is it not? Yes.

563. And that is one reason why it is good for stock purposes? Yes. After passing Coonamble some of the stock might branch off, and make for Warren or Nyngan.

564. You have also a return giving particulars of the holdings in the area included in your statement? Yes. I have a return giving all the individual holdings in that area [*produced*]. I have also an estimate of the losses in stock in the district for the present year, the figures being obtained from our inspectors. They are as follows:—Horses, 379; cattle, 2,125; sheep, 353,839; lambs, 46,343.

565. How do you account for such a large loss in that district? We account for it by the drought.

566. Does the drought prevail so badly then, even in that country, that the losses are so heavy? Yes; it appears from the returns that it is very bad there.

567. There are no special diseases, I suppose, that would cause the losses? I could not say.

568. So far as you know they are caused through want of grass and water? Yes.

Walter Alexander Smith, District Engineer, Roads Branch Department of Public Works, sworn, and examined:—

W. A. Smith. 569. *Mr. Fegan.*] Have you a statement? Yes; it is as follows:—

20 Dec., 1897. STATEMENT showing Schedule Roads affected by the construction of the proposed Railway from Warren to Coonamble.

Item No.	Mileage.	Roads.	Amount voted.						Amount expended.		
			1892.	1893.	1894.	1895.	1895-6.	1896-7.			
373	41	Coonamble to Combogolong	£ 360	£ 430	£ ...	£ 140	£ 350	£ 300	£ 1,194	5	0
374	15	Coonamble towards Billaroy .....	...	75	40	20	40	30	108	0	0
375	28	Coonamble towards Baradine .....	...	150	80	80	80	80	317	9	0
376	43	Coonamble to Tunderbrine .....	...	...	...	55	120	100	275	8	0
377	58	Coonamble to Gilgandra	300	600	700	300	600	500	2,518	17	8
378	65	Coonamble to Warren .....	...	500	...	360	700	550	1,808	0	9
380	52	Quambone towards Warren .....	...	...	...	100	200	150	324	10	7
425	12	Nevertire to Warren .....	...	480	...	60	120	120	598	6	5
1372	85	Walgett to Goondabloni .....	...	...	...	...	...	300	185	14	0
1373	105	Walgett and Goodooga to Brenda .....	...	555	450	270	500	450	1,647	2	0
1374	29	Walgett to Combogolong	350	350	380	80	150	100	1,017	7	0
1375	70	Walgett towards Brewarrina .....	...	70	40	...	280	150	269	8	0
1379	60	Collarendabri towards Angledool .....	...	300	110	120	200	200	689	17	11
1382	66	Pilliga to Walgett .....	...	700	450	240	400	350	1,488	3	3
1383	60	Pilliga and Bugilbone to Eurie .....	...	295	200	100	200	150	610	19	6
1384	49	Wee Talaba and Angledool to Goodooga .....	...	125	40	50	80	80	326	6	4
			£ 1,010	4,630	2,490	1,975	4,020	3,610	13,379	15	5

Total amount voted..... £17,735 0 0

Total amount expended 13,379 15 5

The only other road that our map shows under schedule going into Warren is one coming pretty well due south from Quambone, which is about half-way between Warren and the Barwon. The only other road leading directly into Warren is the one from Coonamble. The roads which the Department has under schedule leading into Coonamble are these:—One from Baradine, one from Tunderbrine, one from Gilgandra, one through Bullaroi from a little east of north, and one from Walgett, following for the last portion of its distance along the Castlereagh. This latter road might be regarded as extending across the Barwon to Goodooga, and by a branch to Angledool. Another branch passes up the Barwon to Collarendabri, and then still further northerly up the Barwon. From Collarendabri this road turns westerly through Angledool, joining the other road from Walgett at Goodooga. The two roads I have mentioned from Walgett to Pilliga—one on the north and the other on the south of the river—do not appear to be intimately connected with the proposal, for it does not appear probable that much of their length will carry traffic to Coonamble or Warren under any circumstances. With regard to these remarks, the information given appears to be apparent from the map. My knowledge of the country is not sufficient to enable me to give definite information; that can only be obtained by close personal observation.

Sydney James Pinnington, Acting Chief Electoral Officer, Chief Secretary's Department, sworn, and examined:—

S. J. Pinnington. 570. *Mr. Hassall.*] Have you a statement? I have taken out the localities in connection with the Coonamble electoral roll. Out of 2,253 electors on the roll, there are 1,188 whom I can locate outside of the 20-mile boundary; 1,028 would be inside that boundary, and 37 I cannot locate at all. Those figures refer to the roll for 1897-8, which is the roll that will be used in the forthcoming general election. The population was last taken by the police in 1896, and comparing the population with the number on the roll at that time, the proportion of population to electors on the roll is as 4 to 1. These are the divisions of the Coonamble electorate, with the figures showing the population and the number on the roll for 1896: Coonamble—population, 2,740; number on the roll, 666. Gilgandra—population, 2,026; number on the roll, 391. Grahway—population, 452; number on the roll, 105. Quambone—population, 650; number on the roll, 180. Warren—population, 2,742; number on the roll, 735.

571. Could you tell us whether the population is increasing or decreasing? The population is increasing, because the number on the roll has since increased by 176, for in 1897-8 the number is 2,253.

572. There has been a gradual increase in the voting power, which means a corresponding increase in the population? Yes.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and further examined:—

H. Deane. 573. *Chairman.*] You sent in the Book of Reference and plans of the Warren to Coonamble line? Yes.
574. How many pieces of privately-owned line are there intersected? There appear to be about twenty-two.
20 Dec., 1897. 575. Will you look into the question of whether it is necessary to interfere with several private holdings which appear to be severed by the line as shown on the map? Yes.*

FRIDAY,

* NOTE (on revision):—I find it is quite unnecessary. On leaving Warren the line can be kept on the travelling stock reserve between 356 miles and 361 miles. Beyond 399 miles it cannot be helped.

FRIDAY, 22 APRIL, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Warren to Coonamble.

Alexander Wilson, sworn, and examined:—

576. *Chairman.*] Can you make a statement to the Committee in regard to the proposal now under our consideration? Perhaps it would save the time of the Committee if I did so. A. Wilson.

577. You have a thorough knowledge of the country traversed by the various routes shown on the plan? 22 April, 1898.

My knowledge of the country is not, perhaps, so thorough as it might be, but it is considerable. I have made public my opinion that the best route for a line to Coonamble is from Dubbo. Such a line would serve much the greatest population. It would serve a country capable of development, instead of a grazing country, which is probably seen at its best at the present time.

578. *Mr. Hassall.*] You refer to the country between Warren and Coonamble? Yes; that country is more or less grazing country, and in wet seasons a great deal of it is under water. As a whole, it is not capable of considerable development, and would not support a very large population. The country between Dubbo and Coonamble, however, while on the face of it not so attractive, is capable of supporting a very much larger population than is settled there at the present time.

579. *Chairman.*] Do you know the country to the west of the road from Dubbo to Coonamble? Yes; I know the country from Gilgandra to Warren, and all about the Ewenmar Creek. I have had occasion to go across all the country shown on the map, more or less. You will understand that I am not now bringing forward arguments to show that the railway should go to Coonamble. I am assuming that it is agreed that it should go there; but the question is as to the route to be adopted. For a long period I have held the opinion that a line to Coonamble should go from Dubbo.

580. The Sectional Committee say in their report:

The land of the district generally may be divided into (1) alluvial soil along the banks of some of the rivers and creeks; (2) extensive open black-soil plains through which, and adjacent to which, are lesser areas of lighter soil—these plains are interspersed with belts of scrub, and at times extensive areas of low-lying country; (3) timbered country; (4) timbered country with ironbark intrusions; (5) ironbark country; (6) broken lands; (7) sandy areas in which there is not enough body in the soil to sustain agriculture for any length of time.

? I think that is a very business-like description of the country to be met with in the district.

581. The Sectional Committee go on to say:

No. 1, alluvial soil. This may be regarded as suitable for either agricultural or pastoral purposes. No. 2, extensive black soil plains No. 3 timbered country. This is, generally speaking suitable for agriculture.

? That is exactly my idea. You keep more on the edge of the timbered country, where the creeks come down from the Warrumbungle Ranges.

582.—

No. 4, timbered country with ironbark intrusion. A considerable portion of this would be suitable for agriculture.

? Exactly.

583.—

No. 5, ironbark country—the ironbark country pure and simple must be regarded partly because of the poor quality of the soil, and also because of the extensive clearing, as being of very little value except for the timber grown upon it.

? Yes, that is the case. It is worthless but for the timber upon it.

584.—

No. 6, broken lands. These, which include the Warrumbungle Mountains, must also be dismissed from consideration, if the end in view be agricultural settlement.

? I exactly agree with that.

585.—

No. 7, sandy areas. These, though probably in a good season they would furnish a fair crop, are not likely to sustain permanently an agricultural population.

? No; but there is a considerable area of land capable of great improvement—country that is very unattractive at present, but which has considerable capacity.

586. You agree with the description of the country given in the report of the Sectional Committee? Yes.

587. Then the matter becomes simply one of engineering considerations? Yes. I see that you have cut the ground from under my feet to some extent by what you have said about the rainfall. The rainfall becomes perceptibly less every 50 miles you go west, and a poorer country with a better rainfall may produce more than a richer country with a poorer rainfall.

588. The Sectional Committee say:

The road from Dubbo to Gilgandra passes, generally speaking, through a tract of inferior country.

? I do not agree with the statement that the road from Dubbo to Gilgandra passes through a tract of inferior country. A lot of the land which now looks very unattractive is by no means inferior. In the last 20 miles of that 40 there is some very fine land indeed, at any rate on the western side of the route.

589. The Sectional Committee say:

This tract is inferior country and does not extend any considerable distance to the west.

? I do not think there is any inferior country to the west. Most of the timbered country, though it looks unattractive, is good land. The soil there is more or less decomposed trap. It is heavily-timbered country, but in many cases it has a fair capacity for carrying population.

590.

A. Wilson. 590. The idea of the Committee was that we could get pretty well a direct and inexpensive line by going a few miles west of the road, and perhaps go through better country? Yes; I have never had two opinions on this subject. It has always been my opinion that the line should go from Dubbo.

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591. Then the question is how to locate the line in the best position so as to make it pass through country best fitted for agricultural settlement? Yes. But I should like the Committee, before they finally decide this matter, to give consideration to the suggestion which I wish to make to them. I wish to prevent a recommendation by the Committee which may interfere with the carrying out of what I regard as a general scheme of some importance. I would suggest that if a connection is made between the Northern and the Western railway system it should be made from Curlew, a point on the Northern line south from Gunnedah, to a point on the line from Dubbo to Coonamble. So far as I know, there is no reason why a line from Dubbo to Coonamble should not pass close to Gilgandra. A line from Curlew to Gilgandra would have only one ridge to cross, and that is the watershed between Cox's Creek and the Castlereagh, which is very ill-defined. A line from Werris Creek to either Dubbo or Wellington would have to skirt the foot hills of the Liverpool Range, and would cross all the main spurs, so that it would have to go up and down a good deal. The line I suggest, however, would start on the Liverpool Plains, and by a little altering could be made to avoid anything like a hill until it came to the watershed I speak of, which I think is about 1,800 feet high. The surveyors say that this is the lowest point at which it can be crossed, and people living in the district have told me the same thing. The line would not pass through one large estate. A great deal of the land traversed is Crown land. Some of it has been thrown open during the last few years, and a good deal of it is about to be thrown open.

592. How far would you pass south of Coonabarabran? About 24 miles.

593. You would be south of the Warrumbungles? Yes; we do not touch them at all, nor do we touch the foot hills of the Liverpool Range. Of course, there are several creeks which have to be crossed, and it is all undulating country. I have been through it on business, and I have examined it carefully. So far as I know, there are no engineering difficulties in the way, and the country is nearly all good. While I do not say that the railway should not go to Coonabarabran, I would point out that that town is situated in a sort of pocket, and the Warrumbungle Ranges form a horseshoe around it. To get to Coonabarabran you have to cross them, and there is a considerable area of poor country around the town. The line I suggest would cross the main road from Coonabarabran, close to the junction of Binni Creek and the Castlereagh, about 24 miles from the town. By this route, from the Western line to Werris Creek would be only 16 miles more than by the direct line, though, of course, the length to be constructed would be a great deal less. I have traversed all the country between Werris Creek and the North-western line to Dubbo and Wellington, and I know the whole of this district. From Coolah to Dubbo the country is practically unproductive. I should say that 10 acres of it would not graze a sheep, of course, excepting a little bit of country close to Dubbo. There are some patches on the Talbragar, which are good, but the route of the line from Dubbo to Werris Creek does not touch that land, neither does the route of the line from Wellington to Werris Creek do so. Generally speaking, the country which either of those lines would traverse is very poor. There is a considerable community of interest between the Northern and Western lines, and no doubt there will be a considerable traffic across country, which would vary according to the seasons in the different places. The route which I suggest would go through easier country, and would suit this traffic better than either of the proposed lines. The line from Blayney to Harden gives a very unsatisfactory return, but that is because the mistake has been made of going through heavy country, which might have been avoided by taking the line further to the west, and a great saving effected thereby. All the country from Coolah to Werris Creek is in the hands of about six holders, and, excepting a few reserves, it has all been alienated. The country traversed by the line I suggest is timbered country, and formerly was not considered to be valuable, but people are settling upon it now. I would point out, too, that there has been a tendency in many cases, in carrying out schemes of railway extension, to ignore existing country towns—towns which in England would be country towns. I think these towns should be considered, instead of being ignored, when there is a junction to be made. As the districts develop, people will want to go into the towns to attend meetings of the assizes, to market, and for other reasons. If the line is extended from Warren to Coonamble, that will interfere with the carrying out of my suggestion. I would point out that the line from Dubbo to Coonamble would fairly well serve the people half-way along the line from Warren to Coonamble. A good many people to the west of that line will find their way either to Warren, or to various points on the Western line.

594. *Mr. Roberts.*] Do you think that the people at Bourbah would be fairly well served by a direct line from Dubbo? Yes; they would have only about 14 or 20 miles to go to get to that line. Of course the line from Dubbo must go from the western side of the river to avoid the creeks and gullies.

595. Do you know the country from Coonamble towards Warrumbungle? Yes.

596. That is good country? It is first-class grazing country for about 30 miles. Of course, the moment you get within coo-ee of the Baradine Creek, you get into almost worthless country for many miles. I think that if Coonabarabran has a railway within 25 miles, which will give it communication by way of the Northern line to Newcastle, and by way of the Western line to Sydney, that is all the people there can hope for. I can only say that I approve of the Sectional Committee's report. It coincides with my ideas in regard to railway extension in this district.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

SECTIONAL COMMITTEE.

RAILWAY FROM WARREN TO COONAMBLE.

REPORT.

THE Sectional Committee appointed to inspect, take evidence, and report with reference to the proposed Railway from Warren to Coonamble have the honor to report to the Parliamentary Standing Committee on Public Works as follows:—

The Committee, consisting of the Hon. C. J. Roberts, C.M.G., M.L.C., T. T. Ewing, Esq., M.L.A., and T. H. Hassall, Esq., M.L.A., left Sydney by the Western mail on Friday, 18th March, at 8 p.m., and arrived at Warren at noon next day. On Monday morning at 9.30 the Committee opened the inquiry at Warren and examined three witnesses. The Mayor stated that the residents of the town and district, while believing that Coonamble was entitled to railway communication, had no desire to give evidence in the present inquiry. At 11 o'clock the Committee started for Bullagreen en route for Coonamble. After a short stay at Tenandra, where an inspection was made of the Government artesian bore, Bullagreen was reached at 4 p.m. On Tuesday morning the Committee met at 9.30 and took evidence. They left Bullagreen at 1 p.m., and, after stopping at Bourbah and examining several witnesses, they reached Coonamble at 5.30 p.m. They were here joined by Mr. Mocatta, an officer of the Railway Construction Branch, who accompanied them during the remainder of their trip. On Wednesday, the Committee met in the Municipal Council Chamber, Coonamble, at 10 a.m., and were engaged all day in the taking of evidence. Next morning the inquiry was resumed in the same place, and was continued until 5 p.m. An inspection of the country north-east from Coonamble was made on Friday, and on the following day the Committee started for Dubbo *via* Gulargambone and Gilgandra. They reached the former place at 4 p.m., and in the evening held a sitting, at which several local residents gave evidence. Having reached Gilgandra, the Committee on Monday made an inspection of the country in the neighbourhood of that place, and afterwards took further evidence. At 9.30 next morning the inquiry was resumed, and the Committee were engaged till noon in examining witnesses. They left Gilgandra at 1.30 p.m. and proceeded on their journey as far as Yellow Creek, having made a short stay at Balladoran, where they were met by several local residents. The Committee were enabled to inspect portions of the country between Gilgandra and Dubbo on each side of the main road. Starting from Yellow Creek on Wednesday at 9 a.m., the Committee reached Dubbo at 1 p.m., and at 3.30 p.m. held a meeting at the office of the Local Land Board for the purpose of taking evidence. Next day was similarly occupied, and on the following morning (Friday) at 7.30 the Committee left for Mudgee *via* Cobborah and Gulgong. They reached the former place at 5 p.m., and in the evening took the evidence of several persons resident in the district. On Saturday the Committee left Cobborah at 7.30 a.m., and passing through the mining townships of Stringybark and Tallewang arrived at Gulgong at 12.30 p.m. At 2.30 p.m. a meeting was held in the Town Hall, where further evidence was taken. On Monday, at 10 a.m., the Committee met at the Court-house, Mudgee, and examined several witnesses.

Most of the statements made before the main Committee with regard to the productiveness of the Coonamble district and the possibilities of further development were fully borne out by the inspection of the Sectional Committee. The question whether Coonamble and the district intervening between it and the railway system of

of the Colony is entitled to railway communication being at once set at rest. The point for consideration, therefore, is not whether Coonamble should be connected with the railway system, but which is the best route.

In deciding this there are two considerations—one, that of local convenience and development; the other, and possibly greater consideration, the interests of the State. In locating a line for the development of so extensive an area the first matters to be considered from a local standpoint are the present settlement, and the increased quantity of produce likely to result from better means of communication, which latter includes the question of whether the land in the near future will be used for agricultural or for pastoral purposes. The land of the district generally may be divided into (1) alluvial soil along the banks of some of the rivers and creeks; (2) extensive open black-soil plains through which and adjacent to which are lesser areas of lighter soil—these plains are interspersed with belts of scrub and at times extensive areas of low-lying country; (3) timbered country; (4) timbered country with ironbark intrusions; (5) ironbark country; (6) broken lands; (7) sandy areas in which there is not enough body in the soil to sustain agriculture for any length of time.

No. 1—alluvial soil: This may be regarded as suitable for either agricultural or pastoral purposes. No. 2—extensive black-soil plains: It appears improbable that there will be any extensive cultivation of these in the immediate future. The Sectional Committee do not absolutely condemn them for agricultural purposes, but it is improbable, while more easily worked lands are available, and taking into consideration the rainfall, that they will be extensively cultivated, except where the soil becomes of a lighter quality, and is, therefore, more readily worked. Land of the latter description comprises but a small part of the total area of open country. No. 3—timbered country: This is, generally speaking, suitable for agriculture. No. 4—timbered country with ironbark intrusion: A considerable portion of this will be suitable for agriculture. No. 5—ironbark country: The ironbark country pure and simple must be regarded, partly because of the poor quality of the soil and also because of the expense of clearing, as being of very little value except for the timber growing upon it. No. 6—broken lands: These, which include the Warrumbungle Mountains, must also be dismissed from consideration if the end in view be agricultural settlement. No. 7—sandy areas: These also, though probably in a good season they would furnish a fair crop, are not likely to sustain permanently an agricultural population.

The rainfall also plays a very important part in a district where it approaches the minimum at which the growth of cereals is safe. Since the rainfall of the Colony, in the absence of disturbing local conditions, decreases gradually as the distance increases from the seaboard, the proposed line to go through a satisfactory agricultural district should be kept as far to the east as possible. For instance, the rainfall at Gilgandra is 25·8 inches; the rainfall at Bullagreen is about 20 inches. This difference in rainfall is a very vital consideration.

A line from Dubbo towards Coonamble, as shown on the sketch, would pass through a class of country in which agriculture is likely to be more extensive and the rainfall more satisfactory than would be the case along the line further west as proposed by the Department. The country between Warren and Coonamble on the surveyed line is such that a great portion of it in the immediate future will furnish only pastoral produce for carriage on the railway. A line from Dubbo to Coonamble would pass through country which, partly by reason of the rainfall and partly because it is more suitable for agriculture, would bring into existence more satisfactory agricultural settlement. The bulk of the evidence is to the effect that a line traversing the route suggested by the Sectional Committee will preserve the trade relations which have long existed between Dubbo and the Castlereagh and Coonamble districts.

The road from Dubbo to Gilgandra passes, generally speaking, through a tract of inferior country. The contention of the residents is that when cleared this land furnished good crops. In the opinion of the Sectional Committee this statement is correct only with regard to a limited portion of it, and cannot be regarded as applying to the ironbark country, although box country upon which there is also ironbark, no doubt in some instances gives satisfactory returns. The second contention, that there is a quantity of excellent hardwood to be obtained for which there is a large demand, is worthy of consideration.

This

This tract of inferior country does not extend any considerable distance to the west, and, in the opinion of the Sectional Committee, if the line were located as shown on the sketch, probably following the line as surveyed for a few miles, then turning to the west and keeping as direct a course as the engineering necessities will permit, not going too far west from Gilgandra to prevent the land in the vicinity of that place and to the east of it from participating in the benefit of railway communication—such a line, in the opinion of the Sectional Committee, would be best calculated to serve all local conditions in connection with the development of the district.

It might perhaps be possible by leaving the main line a little beyond Dubbo to obtain a shorter length of construction; but unless a less expensive crossing of the river can be obtained than that on the main Western line at Dubbo, it would probably be cheaper to adopt the course previously suggested.

It will be understood that the statement of the Sectional Committee with regard to the location of the route must be subject to further investigation. On general principles their contention is that a line from Dubbo can be located through land more suitable for agricultural development, and that a careful investigation should furnish a route through country in which there are no serious obstructions, so as to be in keeping with the cheapness necessary in the construction of lines for the development of our western country.

On the line as proposed there is a sufficiently extensive ironbark forest to furnish a considerable amount of ironbark for many years to come, and the timber growing along the route at various parts and to the eastward could readily be taken to the railway, being a lesser distance than it is at present hauled to Dubbo.

It is necessary to keep the line off the inferior country referred to, and to locate it that on both sides there will be a considerable area of land suitable for agricultural settlement. If the line be carried direct from Dubbo to Gilgandra such will not be the case.

Within 15 miles of the line as suggested by the Committee there are 594,000 acres of Crown lands which will be readily taken up. The Committee desire to emphasise the opinion that a serious mistake is being made in the method of the alienation of these Crown lands. A good agricultural area contiguous to a railway is worth considerably more than one remote from a railway. The saving effected by rail carriage would represent in a satisfactory year some shillings per acre of land cultivated. Under present conditions it appears probable that these lands will be leased at a very low yearly rental. If they were set aside as a railway area, and a few pence per acre added to their rental—which the occupiers would gladly pay if furnished with good means of communication—this would provide a sufficient sum of money to make the railway a paying line from the first. It would be necessary that the land should be properly classified, both the quality of the land and contiguity to the railway being taken into consideration. Under such conditions the State would find it possible, without cost to itself, and with infinite advantage to the inhabitants, to settle great areas of country. Without such procedure it is difficult to find a commercial basis for many railways which if constructed would develop valuable areas of land in distant parts of the Colony.

The distance from Sydney to Coonamble *via* Mudgee is 337 miles; the distance from Sydney *via* Dubbo to Coonamble is 371 miles; the distance from Sydney *via* Warren to Coonamble is 417 miles. It is, therefore, at once apparent that the best line for the people of Coonamble (that place being the objective point)—supposing they paid for the carriage of their goods on a mileage basis, would be the first mentioned—*i.e.*, *via* Mudgee. But the cost of construction is so great that in the absence of very strong local reasons the Committee find themselves forced to dismiss this line from consideration.

Gulgong, distant some 18 miles from Mudgee, appears likely to be favoured with more satisfactory mining returns than has been the case for some time past. The land in the vicinity of Gulgong, and further west on the Talbragar, and even still further west, furnishes a considerable amount of agricultural produce. But, as far as Gulgong, the roads are sufficiently good to prevent any serious disability being experienced by the producers; and the extent of cultivated land to the west is not sufficient to justify the Committee in disregarding the great cost necessary to construct a line from Mudgee to Coonamble. The

The cost of the construction of a line to Coonamble *via* Warren is less than by any other route, although it is not less per mile than the cost *via* Dubbo, while the rate of carriage, owing to the greater distance to Sydney, is the most satisfactory in the estimation of the Railway Department; but unless very strong reasons exist why the longest route to the seaboard should be taken, it would be obviously unfair to saddle any community with unnecessary carriage for all time.

The line from Dubbo being 46 miles shorter from Sydney will place Coonamble in a fairly satisfactory position with regard to a through railway rate. The local conditions attaching to this line have already been fully discussed.

The Committee have carefully considered the question of the returns which will probably be obtained from the line from Dubbo to Coonamble. It is probable that any traffic reaching the Coonamble-Warren road to the south of Bullagreen will continue to go to Warren, even were the line from Dubbo to Coonamble constructed, Bullagreen being about equidistant from Warren and the proposed line. There will be, to compensate for this loss, the traffic from the country east from the Dubbo line, which will go far to make up the loss referred to; in fact, it appears probable to the Committee that it will fully compensate for it. In the future, since the line will be located in country much more suitable for agricultural pursuits, returns from it must be very considerably greater than can be expected from the Warren-Coonamble connection. For the reasons stated in this report the Sectional Committee recommend that a survey be made of the route shown (approximately) on the sketch herewith with a view to the construction of a line from Dubbo to Coonamble.

Representations were made by a delegate from Walgett with regard to an extension of the railway to that town. The Committee determined, however, to allow any statement on the subject to remain in abeyance until the line from Narrabri West was being dealt with.

Representations were also made by delegates from Coonabarabran. The Committee believe that there should be a careful inspection of the country between the north-western railway system and Coonabarabran, extending down the valley of the Castlereagh, where it may be possible, by dealing with the Crown lands as a railway area, to give the Coonabarabran district better means of communication than are at present in existence.

Sydney, 21 April, 1898.

THOS. EWING,
Chairman.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

MINUTES OF EVIDENCE.

RAILWAY FROM WARREN TO COONAMBLE.

[TAKEN BEFORE THE SECTIONAL COMMITTEE.]

MONDAY, 21 MARCH, 1898.

[The Sectional Committee met at the "Club Hotel," Warren, at 9:30 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. CHARLES JAMES ROBERTS, C.M.G. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee proceeded to consider the expediency of constructing a line of Railway from Warren to Coonamble.

Charles Henry Piggott, Mayor of Warren, sworn, and examined:—

1. *Chairman.*] We are given to understand that, although you believe that an important district such as Coonamble is entitled to railway communication, you regard the matter as one outside the legitimate consideration of Warren at this stage? Yes.
2. You feel that the matter must be discussed outside of any local considerations that you might feel prepared to urge? Quite so.
3. *Mr. Hassall.*] You think that the question of railway connection should be dealt with by the Coonamble people themselves? Yes; I am quite of opinion that Coonamble is entitled to a railway, but I think the question of route should be determined from evidence obtained at Coonamble and elsewhere, so as to decide the best route from a national point of view.
4. *Chairman.*] The people of Warren were aware, of course, that the Committee would visit the town for the purpose of inquiry? Yes; there was a notice from your office, and also a notice published in the local paper.
5. *Mr. Hassall.*] As mayor, representing the opinions of the municipality, and of the residents generally, you think it better that they should practically take up a neutral position? I do.
6. Merely with reference to the particular point of connection with the railway system of the Colony that may be decided upon in extending the railway to Coonamble? Yes.
7. Admitting from your knowledge of the district, and the growing importance of the Coonamble district that it is entitled to railway communication from some point? Yes.
8. *Mr. Roberts.*] Has any public meeting been held to consider the question of railway extension from Warren to Coonamble? Not at Warren.
9. Has the question been discussed by the municipal council? No; except by the members privately.
10. You give it as the opinion of the citizens that they have no desire to offer their views for the consideration of the Committee? Yes.
11. You have come to that conclusion, I imagine, from private conversations with people in different parts of the town and district? Quite so. I do not give it as the opinion of the council itself, but as that of the people and members of the council outside.

C. H.
Piggott.

21 Mar., 1898.

William Robert Rowles, storekeeper and selector, Warren, sworn, and examined:—

12. *Chairman.*] You desire to bring one or two matters before the notice of the Committee? I quite endorse the evidence given by the Mayor; but there are one or two facts I should like to bring under the attention of the Committee. The first is with reference to the difference in carriage. I think it would be well that the Committee should not base the whole of their conclusion on the supposition that if the line were extended from Warren to Coonamble, it would get the whole of the Coonamble traffic. In this I am borne out by a conversation I had with two or three storekeepers of Coonamble, when I visited that place about a fortnight ago. They then stated that if the railway were constructed from Warren to Coonamble, they would still continue to get the bulk of their goods from Dubbo. As a proof of this, I may say that between Warren and Coonamble I passed five or six empty teams returning, and I happen to know that in four cases out of the five the carriers resided in the Coonamble district, and consequently it was apparent that they had no loading. On the other hand, while going from Gulargambone to Gilgandra, which is only a distance of 32 miles out of 100 miles between Coonamble and Dubbo, I passed five loaded teams. I may also mention that I went into the question of railway charges, and I found that for third-class goods the rates from Sydney to Dubbo, as against those from Sydney to Warren, show a difference in favour of Dubbo of £1 9s. 9d., the figures being, Sydney to Warren, £8 12s. 5d.; Sydney to Dubbo, £7 2s. 8d. I found that the difference in road carriage was only 10s., the general rate from Warren to Coonamble being from 30s. to £2 per ton, and from Dubbo to Coonamble from £2 to £2 10s. The difference

W. R.
Rowles.

21 Mar., 1898.

W. R.
Rowles.
21 Mar., 1898.

difference in the railway carriage of first-class goods between Sydney and Warren, as compared with Sydney and Dubbo, is 18s. 8d., and for second-class goods the difference is £1 2s. 10d. I have already explained that for third-class goods the difference is £1 9s. 9d. There is also this to be taken into consideration, that although there is this extra carriage of 50 miles to be paid on inward goods, yet the country around Coonamble has a big agricultural future before it, and if the line were constructed from Warren to Coonamble, it would give the Coonamble farmers an outlet for their produce towards Cobar and Bourke, which outlet could not be afforded if a line were taken to Coonamble from either Dubbo or Mudgee.

13. But if the wheat is for export, they would want the most direct route to port? Yes. I do not know whether the Committee intend to go the other side of the Dubbo-Coonamble route and along the Mudgee route. I was rather surprised to find that they had such good country over there. There was more wheat grown about Box Ridge and Tooraweena this year than there was at Warren. Members of the Committee know what wheat is worth in Sydney, and yet the highest price they obtained for their wheat at Coonabarabran was 2s. 8d. Most of them sold for 2s. 6d. They had to accept the miller's price, there being no other market.

Paul Horrigan, grazier, Weenboug, near Tenandra, sworn, and examined:—

P. Horrigan.
21 Mar., 1898.

14. *Chairman.*] Where do you reside? At Weenboug, some miles from Tenandra, on the west side of the Coonamble-road.

15. What area of land have you? 14,300 acres. I shear 15,000 sheep, and have about 20 acres under cultivation.

16. How often have you had your wheat crop in? I have had it in for nine years.

17. How often has it been a failure? Two years out of the nine.

18. Have you any idea what sort of crops you would have got for the other seven years? A fairly good crop, about 12 bushels to the acre.

19. Do you believe that, as a rule, the Warren district with suitable land will give 12 bushels to the acre? I think it would on an average; in fact, more.

20. Do you desire to extend your area for wheat-growing? Yes, I do.

21. If the railway were constructed, would you do so? Yes; I would go in for wheat-growing on a large scale. I am putting down an artesian bore at the present time, as I intend to irrigate.

22. Do you approve of the line from Warren to Coonamble? I do.

23. *Mr. Hassall.*] How far are you from the present railway terminus? The distance to the station is 19 miles.

24. *Chairman.*] How far would you be from the proposed line? About 3 miles, and the bore would be $1\frac{1}{2}$ mile. I may say that I have had applications from different parties to let land for wheat-growing on the halves system, and if the railway were extended I should let land under that system.

25. *Mr. Hassall.*] Relying upon the bore you are putting down as a means of irrigation? Yes. I have a large saw-mill plant on the ground at the present time, and a great quantity of timber, but at the present time there is no sale for the timber, because there is no market. If a line were constructed from Warren to Coonamble I should be able to sell a great deal of it, and send it on to the plains and on to Coonamble. The saw-mill would be about 3 miles from the proposed line. The timber I have is pine.

26. *Mr. Roberts.*] Is there any land being worked for wheat under the halves system at the present time? There is one person this side of Bullagreen who is working on the halves system, but no crops have yet been produced, as they only started last year. They are preparing some country there, and mean to go in for cultivation largely.

TUESDAY, 22 MARCH, 1898.

[The Sectional Committee met at the "Telegraph Hotel," Bullagreen, at 9.30 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. CHARLES JAMES ROBERTS, C.M.G. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Warren to Coonamble.

Daniel McAlary, grazier, near Bullagreen, sworn, and examined:—

D. McAlary.
22 Mar., 1898.

27. *Chairman.*] Do you desire to make a statement concerning the proposed extension from Warren to Coonamble? Yes; it is as follows:—

Cost of Construction.—Mr. R. R. P. Hickson, Under Secretary for Works, in his evidence before the Works Committee, gives the distance to be constructed from Warren to Coonamble as 63½ miles; cost of construction, £150,000, or £2,362 per mile; from Dubbo to Coonamble as 93½ miles; cost of construction, £207,285, or £2,217 per mile. This shows the Warren line will cost £145 per mile more than the Dubbo line. When the estimate of the Warren line was being made, I understand it was considered that the sleepers would have to be got from Dubbo, consequently their extra cost would add considerably to the estimated cost of building the line. As a matter of fact, they can all be got, of red gum, within a few miles of Warren. The contractors for the Cobar line obtained most, if not all, their sleepers on the Macquarie River, about 4 miles above Warren, though they had to pay for the carriage of them by teams to Nevertire, a distance of more than 12 miles, over very bad roads. This carriage cost them more than the carriage by rail from Dubbo would cost, consequently it proves that they got the sleepers at a less cost in Warren than they could in Dubbo.

I believe that a full inquiry will prove that the cost of building a line from Warren to Coonamble will be considerably less per mile than the cost of a line from Dubbo, for, besides obtaining the sleepers quite as cheaply at Warren as they can be got in Dubbo, there are less engineering difficulties on the Warren line, the country being almost level. The extra cost of building the Dubbo line as compared to that of Warren, according to Mr. Hickson, is £57,285, but I feel sure if another estimate of the cost of building the Warren line were made the difference would prove to be much nearer £80,000.

The cost per mile of building the Nevertire to Warren railway is no criterion of what the cost would be from Warren to Coonamble, as I understand the sleepers for the Nevertire line were brought from Dubbo, and were the property of the Government, having been obtained some time previously as a result of finding work for the unemployed, consequently they would probably cost double as much as they could have been obtained for at Warren; and, as I understand, twice as many were used in the construction of the Nevertire line as are used in other lines, this item alone would add considerably to the cost of construction. Again, the line from Nevertire to Warren crosses a lot of low-lying, flooded land, necessitating an unusual

unusual amount of embankments and outlets for the water, while that from Warren to Coonamble is mostly over high and dry land, where a much less proportion of embankments and outlets would be required; consequently, the cost of constructing a line from Warren to Coonamble would probably be much less per mile than from Nevertire to Warren. D. McAlary.
22 Mar., 1898.

Prospects of the line being a paying one.—The line will catch the traffic from all that country bounded by the Macquarie River on the west, Walgett and Pilliga on the north, and Baradine, Tooraweena, Gulargambone, and Collie on the east and south. The country embraced within these boundaries is all first-class grazing and agricultural land. The present traffic from it is ample to ensure the line being a paying one from the start, as the cost of construction will be so small; but there is certain to be a great increase in production, especially in wheat, when the railway is built. The great bulk of the alienated land along the line is in the possession of small holders—the men most likely to develop its resources. Some of them are breaking up land already for the growth of wheat in anticipation of the railway. The leasehold areas of the runs on both sides of the line contain a very large area of Crown lands, all of which is suitable for settlement in small holdings. There is no place west of Orange so well adapted as a site for a flour-mill as Warren is. The Bourke line, from Narromine to Nyngan, passes through splendid agricultural land. The land between Warren and Coonamble is equally good; and, if a railway were built there, Warren being about the centre of this splendid district could collect wheat from any of the lines or send flour along any of them; and, as regards supplying flour locally or to any place north or west, would have an advantage over any other town. The surplus wheat or flour, of course, would be sent to Sydney. The wheat grown in these districts this year, for quantity of yield or quality of grain, will bear favourable comparison with any place in Australia. Besides wheat, many parts of the Warren and Coonamble districts are well suited for the production of maize, millet, sorghum, potatoes, onions, pumpkins, cabbages, turnips, lucerne, tobacco, and many varieties of fruit. As a site for meat-works or a butter factory Warren is the best situated town in the west. A large supply of good artesian water has been found at four places, 20 miles apart, along the line, and, no doubt, can be found anywhere along it. When the people have learned how best to make use of this water, no doubt it will enable them to vastly increase the productions of the district. If artesian water be the great source of wealth which it is said to be in other countries, then the bounteous supply we have indicates a possibility of wealth that would justify the Government in building this railway, even though it benefited but the settlers living within 20 miles of it.

Reasons why we do not support the Dubbo route.—Because it is too far from the great bulk of the settlers between Warren and Coonamble to admit of them profitably growing wheat or any of the other products which the fertility of their soil and the bountiful supply of artesian water makes possible to them, quick and cheap carriage being such a necessity in these things.

Because the country on both sides of the line for the first 30 miles from Dubbo, being of a barren worthless nature, will produce little traffic. From there to near Gulargambone the country on the east side is of an equally worthless nature up to within a few miles of the line. Artesian water has been found not to exist at Gilgandra, and probably does not exist anywhere along the line from Dubbo until Gulargambone is passed; consequently there would be no assistance to production from that source. Because the Dubbo route would lose a large amount of traffic from the Macquarie River and Marthaguy which would go to Warren. And because, owing to all these things, the traffic would be much less than on the Warren line, and, as the cost of construction would be much greater, the Dubbo line would probably not pay, and Parliament would not be likely to consent to build it.

28. You gave evidence before the Sectional Committee at Warren on the 11th of May, 1896? Yes.

29. If necessary for the purpose of this inquiry can the statements then made by you be incorporated in this evidence? Yes.

Philip Ralph Robinson, farmer and grazier, near Bullagreen, sworn, and examined:—

30. *Mr. Hassall.*] What is the extent of your holding? 5,120 acres, conditional purchase and conditional lease. P. R.
Robinson.
22 Mar., 1898.

31. To what purpose do you devote your land? Grazing sheep.

32. What is its carrying capacity? It carries about 4,000 sheep.

33. Then, the country is pretty good? Yes.

34. Is that the general characteristic of the country round Bullagreen—exceptionally good grazing country? Yes.

35. I presume the average capacity of your holding is the same as that of nearly every other holding around you? Yes, I think so.

36. Have you tried agriculture at all? I have started. I have only had the place about six months.

37. You are practically a newcomer in the district? Yes.

38. And you intend to experiment in agriculture a bit? Yes.

39. Have you suitable soil? Yes, splendid soil.

40. Has anything been grown near you or in the vicinity which has led you to think agriculture would be profitable? Yes, I think there has been a good deal.

41. You have heard the evidence given by Mr. McAlary; from your knowledge of the district can you endorse that evidence? Yes, I think it is correct.

42. You think the statement put before the Committee was a truthful one, and could be verified upon the strictest examination? Yes, I think so.

43. With regard to road-carriage, what is the freight from Warren to Bullagreen? The rate to my place is £1 per ton.

44. What used you pay for carriage to Nevertire? Twenty-seven shillings and sixpence per ton for wool.

45. Has it been proved that wheat can be grown successfully in this district? Yes.

46. And of good quality? Yes, good wheat.

47. Are you of opinion that the construction of a railway through this portion of the country would lead to the development of the agricultural industry to any great extent? Yes, I am sure it would.

48. If people found it more profitable to go in for agriculture than for grazing, they would, I presume, naturally do so? Yes.

49. And agricultural pursuits mean much more traffic for a railway than pastoral pursuits? Yes.

50. I suppose it is the intention of yourself and, perhaps, other settlers in the district to go in for a mixed system of farming—that is, combining grazing and agriculture? Yes, I have 300 acres now being cleared. It is under contract, and about 60 acres are finished.

51. And you propose to put that area of 300 acres, when clear, under wheat? Yes, I hope to have nearly 200 acres in this year.

52. Do any of your neighbours, that you are aware of, intend to adopt a similar course? Yes, several of them.

53. How far on each side of the surveyed line does the good country extend? There is great extent of it; I have not seen any bad country.

54. I suppose you would consider the country pretty good for 20 or 30 miles on each side of the surveyed line? Yes, I can vouch for that.

55. Did you have any experience in farming before you came here? Yes; I was wheat-growing in South Australia and in Riverina, and I have also a farm at Narromine at the present time. My experience of the land in South Australia was that it was gradually becoming exhausted. 56.

- P. R. Robinson.
22 Mar., 1898.
56. Therefore, you felt impelled to come and look for new country, or country on which you could put your labour to more profitable use? Yes; I was working on my father's farm at that time. I had no farm of my own until I went to Riverina.
57. What was your experience of Riverina? I was growing wheat in Riverina for seven years on my own account.
58. What led you to leave that district? I considered that the land is better up here, and there is more of it.
59. Then your experience leads you to believe that this part of the country will be suitable for wheat growing, and you can obtain and cultivate larger areas? Yes.
60. Do you think your example will be followed by people from South Australia and Riverina, provided railway communication is afforded to the district;—do you think the construction of a railway would have the effect of introducing a large agricultural population? Yes, I feel sure it would.
61. Have you had any experience of what is known as the halves system? Very little.
62. I suppose that system could be initiated here;—do you think the parties holding land would be willing to enter into agreements with intending settlers, who would come here and work under the halves system, the same as has been done at Grenfell and other districts? Yes, I think so.
63. Do you think the soil and the climate, and other natural conditions, are such as to afford sufficient inducement for people to come here and start operations on the halves system? Yes, I am sure they would.
64. In the event of a railway not being built to this part of the country, would you still continue to clear land for farming? Yes, in a small way. I would not under those circumstances go in for farming very largely.
65. How far are you from the present railway terminus at Warren? Twenty-five miles.
66. That in itself is not too big a handicap, is it? No.
67. Do you think that a radius of 25 or 20 miles on each side of the line would be served by a railway? Yes.
68. And men could get along fairly well? Yes.
69. When you first bought your place, how many men had you employed on the 5,000 acres of which you now propose to clear a considerable portion? At first I only had one man employed.
70. Since you have decided to clear the land and go in for cultivation, how many men are employed? I have fifteen now.
71. Then it naturally follows that anyone going in for agriculture must employ a large number of hands, and consequently benefit the labour market? Yes.
72. What is the character of the wool grown here—pretty good? Yes, pretty good.
73. Good staple, good weight of fleece? Yes.
74. Proving that the country is good and sound? Yes.
75. Is the country pretty fairly settled? Yes.
76. The whole of the country lying between Warren and Coonamble is now, I presume, practically in the hands of small holders, compared with what it used to be? Yes.
77. Is there much demand for land when it is made available? Yes, there is a big demand.
78. There are more applicants, I presume, than there are blocks to satisfy them with? Yes. I may say that I have one man on the halves system. He is putting in a crop this year of 50 acres.

Thomas Jones, grazier, Merrigal, sworn, and examined:—

- T. Jones.
22 Mar., 1898.
79. *Mr. Roberts.*] What is the area of your land? 16,000 acres.
80. Is it freehold? 5,000 acres are leasehold.
81. Where is it situated? This side of Tenandra, on Merrigal Creek. It is on the east side of the proposed line.
82. How many sheep do you generally run? About 15,000.
83. How far is your place in a direct line from the proposed railway? About 16 miles.
84. And how far from Warren? Thirty-two miles.
85. Therefore, the railway would save you 16 miles carriage? Yes; but last year I sent all my wool to Trangie.
86. Would you use the railway if it were constructed? I would use the railway if it came to Tenandra, but I do not think I would use the railway at Warren, because Trangie is only 10 miles further, and by going there I should save 35 miles trainage.
87. What is the difference in the cost? I give 1s. 6d. per cwt. to Trangie, and, I suppose, it would be about 1s. to Warren. I have not carted anything to Warren yet.
88. If the line were made from Dubbo to Coonamble, would that be nearer to you? No; it would be a little further away from me.
89. How far would you then be away from the line? About 25 miles—about 20 miles if there were a station opposite Gulargambone. There would be a difference of about 9 miles in favour of the Warren to Coonamble line.
90. Have you formed any opinion as to which would be the better line to construct in the public interest? Yes; I think this would be the better line; it goes through better country and more of it.
91. Would it serve a larger number of people? I think so.
92. Have you been over the country from Dubbo to Coonamble? I know both lines; I was born on the station I am on now.
93. Can you tell the Committee what the country is like between Dubbo and Gilgandra? From Dubbo to Gilgandra it is very bad country—all ironbank country; I do not think it is good for anything.
94. You look upon it as worthless country? Country I would not like to have it if they gave it to me.
95. Then with regard to the country from Gilgandra towards Gulargambone? That is good country—on the western side of the Castlereagh.
96. And then right into Coonamble? From Gulargambone to Coonamble the country is good on both sides.
97. Is it similar country to what we see around us here? Yes; it is about the same country as this.
98. Do people go in for agriculture at all between Warren and Coonamble or anywhere around where you live? I am going in for agriculture myself this year. I am putting in 40 acres of wheat.

T. Jones.

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99. Whether this line is constructed or not? Yes; I would put it in whether or not.
100. Because you are now within 32 miles of a railway station? Yes. But I have a lot of other country there which I would cultivate if I were near a railway. I have a lot of the scrub country which has been ringbarked, and putting it under crop is the only way to get rid of the undergrowth. Such land is useless for grazing.
101. If this line is constructed, do you think the district will be a large producing district? Yes, I think so, because there is a great deal of land here useless for anything else. All the scrub land the Committee passed through between here and Tenandra is useless for grazing, while it is good for agriculture. If you ringbark it you get an undergrowth that you will never keep down except by cultivating the land; it only grows grass seed.
102. What do you pay for road carriage? I used to pay 30s. a ton to Nevertire, a distance of 45 miles.
103. What do you pay to Trangie? The same; it is about the same distance as Nevertire. You may get it down to Warren for £1; but it is worth a little more to send to Trangie. I sent 115 tons of wool last year to Trangie. I shear for a lot of neighbours, and all that wool went to Trangie last year.
104. Can you state the cost of the carriage of wheat and wool for distances of, say, 10, 20, and 40 miles on the road? For 10 miles you would not get it done under 10s. a ton; 20 miles, about £1; and about 10s. a ton extra for every 10 miles further.
105. The longer the distance the lower the rate in proportion? Yes; when once a carrier gets his load on, he does not mind another few miles.
106. So that the probability is that you would pay just the same for 30 miles as for 40? Yes; I do not think there would be any difference, because when once a carrier has his load on it is no trouble for him to take it another 10 miles.
107. Is there any wheat produced in your neighbourhood? There has been no wheat produced; but there has been a good deal of hay. The difficulty has been to get the wheat to market. There is no mill nearer than Dubbo, and people have been using their wheat crops for hay.
108. Is it because of the difficulty in getting a market that the land in this district is not devoted to agriculture? Yes, I think so. Until the last few years all this country was in the hands of few, and they did not go in for agriculture. But now that the holdings are becoming smaller they will have to do so.
109. Is there a large demand for land? Yes, a great demand. I think there were about 200 applicants for twelve or thirteen blocks available in Warren not long ago.
110. What would you get per acre if you wanted to lease your land, if the railway were constructed? I do not know, but we are asking at present about 1s. an acre for the lease of land for grazing purposes.
111. It is a thing that has not been done? No; except that a lessee may rent from a selector.
112. You would get twice as much as you do now at any rate? Yes.
113. How much wool do you send down to Trangie every year? I sent 115 tons last year, including neighbours' wool shorn at my shed.
114. There would be a large wool traffic along this line? Yes.
115. And you think a wheat traffic would follow? I think so, because there is a lot of this country useless for grazing, and if people pay for it they will have to do something with it. I have a little bit of land in my horse paddock that has been ringbarked and burnt off, and I have to cut the undergrowth about twice a year to keep it down.
116. The land on both sides of the proposed line is very good? Yes, very good. It is good on the eastern side right on to Gilgandra, and then down the Castlereagh to Coonamble, and for hundreds of miles on the western side.
117. That is the land through which the Macquarie runs and the Bogan? Yes.
118. All the way down to the western railway line? Yes; I have been as far as Walgett this way. It is all good country right down there. Of course it is lower country there, and is more flooded, but it is equally as good as this. It is the same country all the way to Walgett.
119. How far in the direction of Walgett does the traffic come to Coonamble? I think it would come from Walgett if there were no other means of getting it away from here—if the river were down. If the river were up the traffic would go by water to Bourke; but, if the river were not navigable, it would certainly come to Coonamble. I think it now goes to Narrabri.
120. Does all the Walgett traffic now go to Narrabri? I think it does when it cannot be sent by water.
121. When do the leases fall in? Some fall in this year and some next year. In the case of those who got an extension for five years, the leases fall in in 1900.
122. In three years a large area will be available? Yes.
123. And do you think the demand is sufficiently great to enable you to say that this land will be taken up? Yes; I think it would all be taken up.

James McCalman, farmer and grazier, near Bullagreen, sworn, and examined:—

124. *Chairman.*] Where do you live? About 3 miles from here, in a south-easterly direction.
125. What is the extent of your holding? About 8,600 acres altogether.
126. What are you running on it? Sheep.
127. Are you cultivating anything? We have been cultivating a little for eight years.
128. Have you had fairly good crops? Yes; we have never had a failure. The crop has always been worth cutting.
129. What do you call a good crop? Of course, we only grow hay. About 2 tons to the acre we reckon a fair crop.
130. Have you grown any wheat? A little.
131. Has that been fairly successful? Yes.
132. Sufficiently so to induce you to believe that this country would grow wheat? Yes; I believe it would.
133. How many bad years would you have had in five? One or two.
134. You think you would have three or four good years out of five? Yes, according to my experience.
135. If, by the construction of a railway, land carriage were saved to the people here, would they be prepared to go in for wheat? Yes; those having scrub country would go in for wheat. Most of the graziers having more or less scrub country they would clear for agricultural purposes if a railway were constructed.
136. That land is useless for any other purpose? Yes. It can be used for grazing; but it is very expensive to keep it in order.

J. McCalman.

22 Mar., 1898.

- J. McCalman. 137. Would you be prepared to grow wheat? Yes.
 138. You heard Mr. Jones' statement with regard to the local conditions of this part of the country? Yes.
 22 Mar., 1898. 139. You believe it is correct? Yes, I do.
 140. What do you pay to get your wool taken from here to Warren? I pay 30s. a ton to Nevertire. I have never sent any to Warren.
 141. I suppose you expect to get it taken to Warren for about 7s. 6d. a ton less? Possibly.
 142. Is £1 a ton a fair thing from here to Warren? That is not a paying rate.
 143. What is a fair thing? I should think 25s. at least. I produce a sample of wheat grown on my own land; I also produce specimens of quinces and oranges. I believe fruit will do very well here, particularly in the scrub country.

James McLeish, grazier, near Bullagreen, sworn, and examined:—

- J. McLeish. 144. *Mr. Hassall.*] What are you? A grazier, residing about 7 miles from Bullagreen.
 22 Mar., 1898. 145. On what water? On no water at all, except what I have made.
 146. What is the size of your holding? About 7,700 acres.
 147. What do you carry? Sheep.
 148. Do you do anything else? Not yet.
 149. Did you hear the evidence given by Mr. McAlary? Yes.
 150. Over what period does your knowledge of this country extend? Eleven years.
 151. Then you are in a position to state whether or not the evidence given by Mr. McAlary is reliable? Yes, it is quite reliable.
 152. Do you endorse the evidence given by him? Yes.
 153. Do you endorse also the description of the country given by him on the Warren-Coonamble route and the Dubbo-Coonamble route? Yes.
 154. The one being pretty good all the way, and the other not so good for a considerable distance from Dubbo? Yes.
 155. You say you have not tried cultivation yet? No, not here. I had enough of that down in Riverina, where I had 25 miles to cart my wheat, and I found it a failure in the very garden of Riverina. I found I could not make it pay.
 156. You would not care, I presume, to go in for cultivation here if you had to cart your wheat 25 miles to the railway? No, I would not attempt it.
 157. You would rather confine your operations to wool-growing? Yes.
 158. Does the carrying capacity of your run compare with that stated in the evidence previously given? Yes, I think so; my land will carry about one sheep to the acre.
 159. That appears to be about the general capacity of the land in this district? Yes.
 160. Which proves that it is uniformly good? Yes.
 161. There is not much waste land, I presume? Some of it is scrub, but if it is well worked up and looked after, even the scrub will carry a lot of sheep; but it is very expensive to keep in order. If the railway were extended to Coonamble I should go in for letting some land on the share system, which has worked well in Riverina.
 162. You think you would be able to get men to come and take up land under that system? I am certain I could get any number of men to come from Wagga Wagga way—men whom I have known in Wagga Wagga. I have to pay £2 a ton road carriage to and from Warren—that is, for wool going in and goods coming back.
 163. Could we average the road carriage from Bullagreen to Warren at 30s. a ton? Yes. I am 7 miles further away.
 164. The rate of carriage, I presume, varies with the character of the season? Yes; sometimes we have to pay £3. I had to pay £3 last shearing.
 165. Do you think the construction of a railway through this district would be beneficial to it generally? I do. I think it would open up one of the finest agricultural districts in New South Wales.
 166. Not only would the people residing here at the present time go in for agriculture, but you think many others would be induced to come and settle here and throw in their lot with you? I feel certain of it.
 167. Do you endorse the evidence given by Mr. Robinson with regard to the demand for land in the district? Yes; there are more applicants than there is land available.

David Munro, grazier, near Bullagreen, sworn, and examined:—

- D. Munro. 168. *Mr. Roberts.*] What area of land have you? Together with my family I hold about 11,000 acres.
 22 Mar., 1898. 169. Is it freehold? No; it consists of conditional purchases and conditional leases, with the exception of about 40 acres freehold.
 170. Do you, like your neighbours, run about a sheep to the acre? Yes; in good seasons.
 171. Where do you send your wool? I used to send it to Nevertire.
 172. What do you pay for carriage? 30s. a ton. The proposed line of railway would pass within a mile of my property.
 173. Briefly stated, what benefit would the railway be to you;—would you get your wool taken down at much less cost? Yes. The railway would be of great benefit to me; I would go in for agriculture.
 174. Have you had any experience in that occupation? Yes; I was twenty years farming in Victoria.
 175. What part of Victoria? At Smeaton, on the Lodden. I was also farming for eleven years on the Yanko.
 176. Are you satisfied that the land all along the proposed line from Warren to Coonamble is well adapted to the growth of wheat? Yes; I am sure of it. I produce a sample of lucerne cut yesterday, and also a sample of hay.
 177. Have you grown any fruit on your land? Yes. I produce samples of peaches and quinces. I have also grown oranges, apricots, and figs.
 178. You regard the district as adapted to the growth of almost every kind of fruit? Yes.
 179. Have you got a large area of land under fruit-trees? No; only an acre. I only grow fruit for my own consumption.
 180. You have heard the evidence given by previous witnesses? Yes. 181.

181. Is there anything you would like to add? I may say that I have been growing a little crop for the last nine years, and every year has been a success except last year. I threshed a bit out one year, and as nearly as I could average it it would have gone about 30 bushels to the acre. D. Munro.
22 Mar., 1898.
182. You think the land would average from 25 to 30 bushels to the acre? Yes; and I am sure there are patches here that would go 40 bushels.
183. If the railway were constructed, do you think that vast areas would be put under wheat? Yes: if we did not go in largely for it ourselves, we would let land on the halves system. You would get a lot more money out of an acre by cultivation than you would get from a sheep.
184. How much would you make out of an acre by sheep-farming, and how much would you make by wheat-growing? Twenty-five bushels of wheat to the acre, at 4s. a bushel, would be £5, and you only get 5s. for a sheep. Deducting expenses, I might say that the figures would be £1 as against 5s.
185. What do you make out of an acre by sheep-farming? Five shillings, and you are lucky to do that.

Michael Quigley, farmer, near Bullagreen, sworn, and examined:—

186. *Chairman.*] Where do you live? About 5 miles west from here. M. Quigley.
22 Mar., 1898.
187. How long have you been here? I have been here about eight or nine years, but I have been in the district about eleven years.
188. Is your country open country, or scrub? Scrub principally.
189. Have you done anything with the scrub land? I have ringbarked it and grubbed it.
190. Will it grow wheat? Yes; it is first-class wheat country.
191. Do you regard the country between here and Warren, through which the Committee passed, as being first-class wheat country—I am speaking of the scrub country? The scrub country is first-class wheat country.
192. Have you any doubt with regard to the growth of cereals being a success in this country? Not the slightest doubt.
193. What do you pay per ton for carriage to Nevertire? I used to pay 30s. when I sent my produce there, and it is about the same to Warren; but I have paid £3 to get goods from Warren out here, and the last carriage I paid was £2.
194. You heard the evidence given by Mr. Munro with regard to fruit and grazing land, and you heard also the evidence given by Mr. Jones and other witnesses with regard to the country generally? Yes.
195. Do you agree with those witnesses, speaking generally? Yes; I quite endorse all they said. I have tried in this scrub country lucerne, wheat, oats, and sorghum, and found cultivation a success, though only in a small way.
196. *Mr. Hassall.*] Do you think that what you have done in a small way you could do on a large scale? Yes; I produce a specimen of the sorghum grown on my land. It would be a wonderful benefit to the district if the railway were extended as proposed, so that we could use the scrub country which, as Mr. Jones pointed out, is almost worthless for grazing, but well adapted for agriculture. I have some scrub that I ringbarked and then grubbed three or four times, and the scrub is coming again now.
197. This would not happen if you used it for agriculture? No; not if it were ploughed every year.

Manus Strain, grazier, near Bullagreen, sworn, and examined:—

198. *Mr. Hassall.*] Where do you reside? About 3 miles from here. M. Strain.
22 Mar., 1898.
199. What are you? A selector.
200. What is the extent of your holding? 2,560 acres.
201. Do you cultivate any portion of it? No; I use it for grazing sheep.
202. Is its carrying capacity equal to that described by previous witnesses—about a sheep to the acre? Yes, it always carries that number of sheep year in and year out, sometimes more, but never less.
203. Then it is exceptionally good grazing land? I think it is about equal to the average run of land about here.
204. Do you think it is suitable for agriculture? Yes, I think the timbered portions are suitable for agriculture.
205. But I presume there is no inducement to go in for cultivation, by reason of its being so far from the railway? That is so; I do not think agriculture would pay under existing circumstances.
206. I suppose you might be induced to let some portion of your land on the halves system? Yes, I would be very glad if anyone would take it on the halves system.
207. Is the wool that is grown here of good quality? Yes, it brings the average price in the Sydney market.
208. Pretty good fleece? Yes, pretty fair. The average weight of the fleece is about 5 or 6 lb. It is fairly clean.
209. Can you endorse the evidence given by previous witnesses with regard to the character of the country? Yes; I have not heard a word to which I could object.
210. Do you know the country between Dubbo and Coonamble? I have been that way twice on the coach.
211. Then you know it only casually? That is all; but it struck me that there was some of the land I would not take as a gift, especially about Coolbaggie. Of course, the land from Dubbo to Coonamble is not all like that.
212. Is settlement increasing very much in this district? It has increased so much that I do not think there is a vacant acre of land about here.
213. And when any land is thrown open, is there a big rush for it? Yes.
214. I suppose you endorse the statement that this country is pretty bad to travel over in wet weather? Yes. I believe it would take more to make a first-class road and keep it in repair, than to construct a light line of railway. The road is not so bad as it was twelve years ago. It has recently been corduroyed. Until recently I never paid less than £3 a ton to bring goods from Warren here. The cost of goods is high, and the advantage of a railway would be felt by every settler in the district.
215. The cost of carriage would be reduced, and the settlers would realise a better price for their produce? Yes.
216. I suppose a railway running through here would enable a man to send away a truck or two of stock, whereas if he has to drive them any distance to the railway it does not pay him to send a small lot away? Yes. If the railway were here all the stock would be trucked.

Malcolm

Malcolm McCallum, grazier, Bullagreen, sworn, and examined:—

- M. McCallum. 217. *Chairman.*] Where do you live? At Bullagreen. This hotel is built on my holding.
 218. What area have you got? 2,336 acres.
 22 Mar., 1898. 219. How many sheep do you run? From 1,500 to 2,000.
 220. Do you cultivate anything? No; I have not put in any cultivation yet. I intend to do so by-and-by. I think the plain country here will grow crops.
 221. What freight do you pay from here to Warren? £2 a ton. I have paid £3, but I have been paying £2 lately.
 222. If we were to average it at 30s. all round, would that be a fair thing? I dare say it would, but I have never got it for that yet.
 223. You have heard the evidence given by the other witnesses? Yes.
 224. Is it all correct? Yes.
 225. Do you desire to add anything to it? No; except that if a railway were extended in this direction, I would go in for cultivation myself; but I would never think of doing so under present circumstances.

George Alexander Munro, secretary, Bullagreen Railway League, sworn, and examined:—

- G. A. Munro. 226. *Mr. Roberts.*] I believe you are Secretary to the Bullagreen Railway League? Yes.
 227. Where do you reside? At Woodside, with my father.
 22 Mar., 1898. 228. Have you prepared any statement that you would like to place before the Committee? I have prepared a list of the landholders within 11 miles of this place, with the areas of their holdings.
 229. Would they all make use of the railway if constructed? Yes.
 230. What is about the average area of the holdings;—would the majority be 2,560 acres? They vary a good deal; they would average more than 2,560 acres. I think some are as high as 15,000 acres.
 231. Would it be a fair thing to say they would average 4,000 acres? I should say about 3,500. The list of landowners within 11 miles of Bullagreen, with the area of their holdings, is as follows:—

		Acres.			Acres.
David Munro, Woodside ...	...about	8,360	Jos. Welsh, Glenwood	...about	2,560
G. A. Munro, " ...	... "	2,560	E. Welsh, Oakview Hill	... "	2,560
Miss F. A. Munro, Woodside ...	... "	620	P. R. Robinson, Pine Grove	... "	5,000
Manus Strain, Bullagreen	... "	2,560	John Broomfield, Bullagreen	... "	1,600
Jas. McLeish, Myall ...	... "	7,200	Daniel McAlary, Macville	... "	15,000
John Hiller, Bullagreen ...	... "	300	David McAlary, Emu Park	... "	8,000
Malcolm McCalman, Bullagreen ..	... "	2,300	W. McIlveen, Bullagreen	... "	2,560
M. Quigley, Erleside ...	... "	10,000	W. M. Connell, Avoca Station	... "	.....
Mrs. Brouff, Roseneath ...	... "	5,000	P. Donohoe, Bourbah Station	... "	.....
Thomas Jasper, Bullagreen	... "	4,700	Jos. Richmond, Haddon Rig Station	... "	.....
Jas. Buckley, Pine Ridge	... "	2,000	Horrigan Bros., Weenboung	... "	15,000
A. E. Jones, Bullagreen Station...	... "	.....	Mrs. Hall, Dragon Cowell	... "	2,560
L. Barrie, " ...	... "	670	Geo. McIlveen, Dragon Cowell...	... "	.....
Patrick Welsh, Glenwood	... "	2,560			

The following settlers had crops in for hay last year:—Jas. McCalman, 10 acres; D. Munro, 10 acres; M. Quigley, 7 acres; Mrs. Brouff, 5 acres; Horrigan Bros., 10 acres; P. Welsh, 8 acres; P. Donohoe, 5 acres.

232. Are these landholders all members of the Railway League, and favourable to the proposed line? With one or two exceptions, they are all members of the Railway League, and they are unanimously in favour of the construction of the railway.
 233. What distance east and west of the proposed line does the list embrace? For about 15 miles on either side, the people, with one exception, are in favour of the line.
 234. In your position as secretary to the Railway League, you have a good opportunity of knowing the views of the people from one end of the district to the other? Yes.
 235. And you have no hesitation in saying that they are all favourable to the proposed line from Warren to Coonamble? I have not the least hesitation in saying so.
 236. In conversations you have had with all these people, has there been a marked anxiety on their part to go in for the growth of cereals? Yes; they seem to be very anxious to go in for growing cereals; in fact the scrub land is no good for anything else.
 237. Have you formed that opinion after having had experience? Yes; my father has some scrub land on his property, and about every twelve months, he has to hoe up the undergrowth; but if this scrub land were put under cultivation for five or six years, it is believed that the undergrowth would be killed.
 238. You have heard all the evidence given by previous witnesses? Yes.
 239. Is there anything you would like to add? Only that I think that if the railway were to come along here, besides agriculture, there would be a good deal of traffic in the way of fat stock.
 240. Is the fat stock pretty well all driven at the present time? Yes; it is all driven to Warren; but if there were a railway, it would be trucked from here to Sydney direct. During twelve months father sold about 6,000 fat sheep off 11,000 acres.
 241. If there were a railway the fattening of live stock would greatly increase? I think so.
 242. Is there a large passenger traffic between Bullagreen and Warren? Yes; there appears to be a good passenger traffic.
 243. Do the residents of the district generally travel by coach, or in their own vehicles? Sometimes they go in the coach; but if the roads are very bad they generally take their own vehicles.
 244. If a railway were running do you think there would be a good passenger traffic? Yes; I have heard it said that the passenger traffic has increased on this road since the railway was extended to Warren.
 245. For how many months of the year are the roads between here and Warren in an indifferent state? I could not exactly say, but the roads are in a very bad condition in the months of May, June, and July.
 246. Do you regard the land in the district as well adapted for the growth of all kinds of fruits? Yes; grapes particularly.

[The Sectional Committee met at the "Merri Merri Hotel," Bourbah, at 2.30 p.m.]

John Blackman Peacock, grazier, Merri Merri, sworn, and examined:—

247. *Chairman.*] Do you desire to hand in a statement to the Committee? Yes; it is an address, signed J. B. Peacock, by fourteen residents of the Bourbah and Merri Merri districts, urging the construction of a railway from Warren to Coonamble by the route proposed. Those signing the address reside within a radius of about 9 miles of Bourbah. 22 Mar., 1898.
248. *Mr. Hassall.*] Are you a grazier? Yes; I reside at Merri Merri station.
249. What is the area of your holding? 18,000 acres.
250. What does it carry? Sheep principally.
251. *Chairman.*] Will you grow any wheat if the railway comes here? Yes; I have tried wheat, and I believe it will succeed. Provided I have a market I believe agriculture will pay me better than pastoral occupation.
252. Do you send your stuff to Warren? Yes.
253. What freight do you pay? The road carriage for wool to Nevertire is £2 2s. 6d. per ton, and the carriage for back loading is £2. That is in shearing time. We have to pay higher rates at other times. Outside the wool season we have to pay £2 10s. for back loading.
254. Is there much live stock sent down? That is principally what I do.
255. The country around Merri Merri is essentially good fattening country, and if a railway were constructed you would have facility for sending your fat stock away, and this facility, you believe, would be largely availed of by the people settled in this district? Yes. It often happens in dry times that we could send a few truck-loads of sheep away if there were a railway, but it will not pay to drive them to Warren.
256. Under existing conditions, unless you can make up a train-load of fat stock, you do not care for the expense of road travelling, and taking the sheep on to Warren to truck them? No; it would not pay.
257. But if the railway were adjacent to you, you could send one, two, or three trucks, and a train-load of fat stock could be made up by the residents of the locality, who, perhaps, like yourself, could each send one or two trucks? Yes. Last year, when stock were bringing a high price, I could have mustered four or five trucks of good stock myself without any trouble. I kept them waiting to improve their condition, but owing to the dry weather they went poor, and I missed the market.
258. When land is thrown open in this district, are there many applications for it? Yes. If a piece of land were thrown open here at present I should imagine there would be fifty or sixty applicants for it. I say this, judging by what has taken place when other land has been thrown open. Settlement has increased very largely during the last ten years, and it has been of a desirable class. The district is progressing.

Robert Charles Byrne, Sydney Myatt, Patrick Donohoe, and William Donohoe, sworn, and examined:—

259. *Chairman.*] You are residents of Merri Merri, near Bourbah; you have heard all the evidence given by Mr. Peacock;—can you corroborate it in every particular? Yes.

R. C. Byrne,
S. Myatt,
P. Donohoe,
and
W. Donohoe.
22 Mar., 1898.

WEDNESDAY, 23 MARCH, 1898.

[The Sectional Committee met at the Municipal Council Chambers, Coonamble, at 10 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. CHARLES JAMES ROBERTS, C.M.G. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Warren to Coonamble.

Herbert Mandeville Nash, licensed surveyor, Coonamble, sworn, and examined:—

260. *Chairman.*] How long have you been stationed here? I have been stationed here for nine and a half years. I have been qualified for twenty-two years. H. M. Nash.
261. Have you a good knowledge of the Coonamble land district? Yes, of the portion comprised within the county of Leichhardt, which is at least two-thirds of the district. 23 Mar., 1898.
262. You have some information you can give us? I am in a position to give you the aggregate area of the Crown leasehold within the Coonamble land district. It is about 934,700 acres. The Crown resumed areas within the Coonamble land district comprise about 204,580 acres. Together with the Crown Land Agent I have been through all the conditional purchase and conditional lease books and every kind of alienation book except that relating to auction sales, and I am able to give the acreage of conditional purchase and freehold land in that part of the Coonamble land district falling within the county of Leichhardt. The aggregate area is about 474,000 acres, included in about 2,010 measured portions, and distributed over seventy-two parishes.* I can give similar information with regard to the conditional leases. Of these, 735 applications stand good for an area of 715,940 acres. There are thirty-two settlement leases, representing 84,150 acres, and there are thirty-five annual leases, representing an area of 35,060 acres. The homestead selections are only on a very small scale as yet, the number being eleven, and the acreage 413. I can give the unimproved value, according to the assessment, of all the taxable lands in the county of Leichhardt, which comprise much the greater half of the Coonamble land district. The aggregate unimproved value of conditional purchase and freehold land embraced in that part of the Coonamble land district falling within the county of Leichhardt is about £581,500. Though this estimate excludes the whole of the town of Coonamble (east side of the Castlereagh River), it covers all other alienated taxable land. The unimproved value of the land in the town of Coonamble is about £47,000.
263. You see a map placed before you coming from Mr. Mackenzie, Acting District Surveyor at Dubbo, and you see certain areas with the quality of the land delineated on the map? Yes. In my opinion the map conveys a fairly correct idea of the quality of the land. The area shown white, represented as first-class pastoral country with belts of agricultural land in it, is, in my opinion, correctly described, though,

* NOTE (on revision):—The 474,000 acres refers to land in the Coonamble district, county Leichhardt, only. The rest of the information applies to Coonamble land district and various counties within it.

- H. M. Nash. I think, the area of agricultural land is somewhat larger than shown by the map. I think that the land from Gilgandra to Coonamble may be regarded as about as good for both agricultural and pastoral occupation as the land from Coonamble to Warren. Going down south from Gilgandra to Dubbo the country is heavily timbered, and is generally regarded as inferior. If a railway went through in that direction a considerable amount of it would be tested, but I am not prepared to express an opinion as to whether settlement would be satisfactory there, and I hold a distinct opinion that the land is not as good as that from Gilgandra to Coonamble, or from Coonamble to Warren. The land from Gilgandra to Mudooran is in my opinion inferior; but when Mudooran is reached there is a very considerable area of good agricultural and pastoral land. At Cobberah, which is about the limit of the country with regard to which I have information, the land is also good. The direct line shown on the map in red from Mudooran to Coonamble passes through a considerable area of land that would be fit for agriculture if the rainfall permitted, but I am not prepared to express an opinion in detail. From Coonamble half way towards Coonabarabran the country is, in my opinion, good. Beyond that the country becomes broken—some of it is good and some bad. The first half, or the first 35 miles, is black-soil country, and, in my opinion, more suitable for pastoral than agricultural purposes. The line shown on the map from Coonamble to Walgett goes through very fine country, but, in my opinion, it must be regarded as pastoral, also the country from Coonamble to Coonabarabran—the first half of the distance. I make this reference to make it clear that, in my opinion, the quantity of land suitable for agriculture is greater south from Coonamble to Gilgandra, and south-west from Coonamble to Warren than it is in an easterly or northerly direction. The country to the west from Coonamble is somewhat similar to that between Coonamble and Warren, and if the rainfall permitted would probably support more people engaged in the growth of cereals. With regard to the road from here to Walgett, for about 15 miles it goes through pretty good agricultural country. The rest of it is nearly all pastoral country.
264. *Mr. Hassall.*] Are you aware when the leases fall in of the 934,700 acres of Crown leasehold? The latest, I think, fall in in July, 1900. The last reappraisal was in 1895, when the leases were extended for five years, and in July, 1900, all that land will be available.
265. The whole of that land will be available between the present time and July, 1900? Nearly all of it. A small portion may be kept open by exchanges.
266. In round numbers, nearly a million acres will be available in July, 1900? Yes.
267. The resumed area, according to your evidence, embraces 204,580 acres. That is a pretty good proof that all the land available on the resumed areas has been pretty well absorbed? Quite so.
268. Can you give the Committee any idea of the value or quality of the 204,580 acres still available? I do not think that on an average it is worth more than 5s. an acre.
269. I suppose there might be some chance of the State getting rid of it if there were a railway within a reasonable distance, and the land were classified? Yes; classification would tend to get rid of it.
270. You could not expect people to give £1 an acre for land like that when they are able to get land in this part of the country for the same price? Exactly; and most of that land is rough country. There is very little probability, I should think, of settlement there, or of facilities being given to induce people to settle there.
271. You think some steps will have to be taken—say, in the way of classification—in order to induce people to take it up? Certainly. I know of part of one run of about 30,000 acres, for which the holders will not pay. They do not consider it is worth paying for. I refer to country up in Gummin Gummin, right under the Warrumbungle Mountains.*
272. *Mr. Roberts.*] Do you regard the land between Coonamble and Gulargambone as the best along the proposed line from Coonamble to Dubbo? Well, I think pretty well all the land up the Castlereagh is fit for cultivation, and I am satisfied that if a railway were constructed there any quantity of it would be cultivated.
273. Is it of a superior quality to the land you find as you approach Gilgandra? I consider it all very good country from here to Gilgandra, and there is not much difference at either end. This end may be, perhaps, a little the better.
274. It is all good agricultural land? Yes; at any rate, adjacent to the river.
275. You would not like to give an opinion with regard to the land between Gilgandra and Dubbo? I might give an opinion, but it would not perhaps be entitled to much weight. I have had an official knowledge of the Coonamble district for nearly ten years, and I have been over the country no end of times; but the country between Gilgandra and Dubbo is out of my jurisdiction. I have been over it several times, and made an inspection or two on it, and I have been over it I suppose twenty times in the coach.
276. When were you last over it? I came up last Wednesday and was all over that country.
277. How would you describe it? For about 8 or 9 miles out of Dubbo the country is very good, but it is then inferior nearly all the way to Gilgandra.
278. Is it sandy country? Sandy country and heavily timbered.
279. And not likely to be taken up for agriculture? Of course if a railway ran through the middle of it, I am certain that a lot of it would be cleared and tried; but, as I have already said, I would not like to give an opinion that it would grow satisfactory crops. I have no doubt that some of it would, but taken all through I should not like to say it would be satisfactory.

Thomas William Medley, Inspector of Stock, Coonamble, sworn, and examined:—

- T. W. Medley. 280. *Mr. Hassall.*] What are you? Stock Inspector for the Coonamble District.
281. What territory does that district embrace? Approximately it is from 75 to 80 miles long, and about 60 miles wide.
282. Have you any returns giving the number of stock depastured in the district? I have the number of stock returned this year. There were 6,990 horses, 18,311 cattle, 1,732,560 sheep, and 235 pigs.
283. How do these returns compare with those of the previous year? There is a very slight difference. There were a few more last year.
284. Do the returns vary much—have they varied much during the last ten years? Not a great deal; there is sometimes a difference of 500,000 or 600,000 sheep. With regard to horses, sometimes they are on

* NOTE (on revision):—I have not quite expressed my meaning here with regard to the 30,000 acres. The facts are that the lessees have fenced off, and do not use that part, though they pay rent for it for the sake of the rest of the country. It is rough and scrubby, and mostly over-run with marsupials and vermin.

- on the increase and sometimes on the decrease, according to the season. Occasionally, when we have a bad season, many horses are sent away for grazing. I have also a return of the fat stock leaving the district during the last twelve months. There were 327,000 fat sheep. T. W. Medley,
23 Mar., 1898.
285. What is the general character of the country for grazing—is it good, sound country? Yes; it is good sound country. Some portions of the country are affected with anthrax or Cumberland, and some with fluke.
286. Is there any foot-rot? Very little.
287. Is Cumberland very prevalent? Yes, in some parts of the district.
288. Do those portions embrace a large area in the district? No; they include some of the small stations of about from 15,000 or 30,000 sheep perhaps. On the station adjoining they would have hardly any losses, while on particular stations, or some of them, they would have very heavy losses.
289. So that it is intermittent in its effect; it may exist in one spot and there may be no sign of it 15 or 20 miles away? Yes.
290. You look upon the district, however, as a fairly sound one? Yes.
291. Have you held the position of stock inspector in any other portion of the Colony? No.
292. I presume you have travelled over other portions of the Colony? Yes.
293. I suppose you could compare the Coonamble district with other portions? Yes.
294. What do you think of it as compared with the best pastoral country you have seen in New South Wales? I think it will compare favourably with any other pastoral district in the Colony. I was a good many years on the Bland and also in the New England country.
295. Is the district fairly well watered? Yes, fairly well. Of course, a great deal of it is artificial.
296. But it is country you think is admirably suited for settlement? Yes.
297. And with every prospect of a man progressing in the world if he settles down here? I think so.

Donald Fletcher, President, Railway League, Coonamble, sworn, and examined:—

298. *Mr. Roberts.*] Do you favour the proposed line from Warren to Coonamble? The Railway League favours no particular route. We want a railway, and we think that the Public Works Committee and the Railway Commissioners are in the best position to tell which is the proper route, and we leave that matter entirely in their hands. D. Fletcher.
23 Mar., 1898.
299. The view your league takes is this: You think the time has arrived when Coonamble ought to be connected with the railway system of the Colony, but as to the route, you are prepared to leave that question to the Government or the Parliament of the country? Yes; that is exactly the position of the league.
300. Have you prepared any statement that you would like to place before the Committee? No; but I have been a resident for over twenty-six years in this district, and I could give some evidence as to its capabilities.
301. What area of land do you hold? About 7,000 acres of freehold and conditional purchase, and about 6,000 acres of leased land.
302. How far are you away from Coonamble? Six miles in a westerly and north-westerly direction.
303. How many sheep do you run? My last return gave about 6,490 sheep, 487 cattle, and 59 horses.
304. In the Coonamble district how many sheep do you think it desirable to run to the acre;—what number do you generally run yourself? A sheep to from 2 to 3 acres.
305. Then, in your opinion, it would be rather an over-estimate to say that you could run a sheep to the acre in fairly good parts of the district? I think some portions of the country, in some seasons, would carry that quantity comfortably; but taking the whole district, and an average season, it would be too much.
306. It would be about one sheep to 2 or 3 acres? I think so, on an average.
307. That is with due regard to safety? Yes.
308. Will you point out to the Committee what, in your opinion, would be the advantages to this district if a railway were brought here? One advantage would be this: There are a great number of small settlers in this district who have a few fat stock at a time—too few to drive to the railway, because it costs as much to drive a small lot as a big lot. If a railway were here they could send these small lots of fat stock in to market whenever they had them. At present a man may have 500 head of fat stock, and he has to hold them until he has a thousand. By the time they should have increased to a thousand perhaps dry weather sets in, and he may then have none at all.
309. You think that if a railway were constructed a large number of fat stock would be trucked? I think so.
310. And the railway would get the benefit of that traffic? I think so. Then, again, I am satisfied from experience that there are very few better wheat-growing districts in the Colony.
311. You can speak from experience? Yes; I have grown wheat several times. Of course, I cut it for hay, because it is no use for anything else.
312. You have grown wheat for home consumption? Yes; I have grown over 3 tons of hay to the acre, and I estimated that it might have yielded over 40 bushels of wheat to the acre if it had been allowed to ripen. This also was the estimate of other practical farmers. Mr. Nash, in his evidence, seemed to consider that the black-soil country was no good for agriculture. I have proved it to be the best. The black myall soil grows wheat better than either the red or sandy soil according to my own experience. It is harder to work, but it grows magnificent wheat.
313. If a railway were constructed either from Warren or Dubbo, or Mudgee, you think that large settlement would take place when the land became available? I am sure it would. I am satisfied that as the land became available it would be taken up if a railway were in existence.
314. Do you know the three routes which the Committee intend to investigate, namely, from Warren to Coonamble, from Dubbo to Coonamble, and from Mudgee to Coonamble? Yes.
315. Have you been over all that country? I have been over a good deal of it. I have a good idea of the class of country along the three routes.
316. You heard the evidence given by Mr. Nash, in which he described the quality of the land in the different districts? Yes.
317. What is your opinion of the character of the country between Gilgandra and Dubbo? It is inferior grazing country. It is heavily timbered country with box.
318. Is it very sandy? Some parts are sandy, and some parts consist of a hard clay soil. A good deal of it is sand.

- D. Fletcher. 319. Do you think anything would grow there? I certainly think a good many portions of it would grow grain crops.
- 23 Mar., 1898. 320. Am I right in saying that you regard it as altogether inferior to the land nearer to Coonamble? Yes.
321. Either for agricultural or for pastoral purposes? Yes; I think it is inferior for both purposes. It is certainly inferior for pastoral purposes.
322. In other words, it is land that you would never think of taking up if you could get the land between Gilgandra and Coonamble;—is that a fair way of putting it? Yes; I would sooner have the land between Gilgandra and Coonamble.
323. Do you send your wool to Sydney? Yes.
324. How much wool do you send annually? About 100 bales.
325. Generally speaking, do you agree with Mr. Nash with regard to the class of country on the three different routes? Yes.
326. Besides the 100 bales of wool, do you send any live stock to Sydney? Yes; I send on an average 1,200 or 1,500 fat sheep and some cattle.
327. Do you send them to the Warren station? I have not done so yet. I have sent to Dubbo and Rylstone. The Warren station was not available last year.
328. Would Warren be the nearest railway station now? Yes.
329. Where do you generally send your wool and live stock? My wool has always gone to Dubbo since the Dubbo railway opened. Live stock I send to Dubbo and Mudgee, according to the road.
330. How many miles is it from your place to Dubbo? 106 miles.
331. What do you pay per ton generally for carriage? I generally contract with Wright, Heaton, & Co. to deliver in Sydney; I do not know what they pay the carrier.
332. *Mr. Hassall.*] What do you pay? I paid £6 12s. 6d. last year for carriage right through to Sydney.
333. Do you know the local rate? It is about £3 per ton to Dubbo.
334. *Mr. Roberts.*] Have you estimated what advantage the railway would be as regards a reduction in the cost of carriage;—you would get freight more cheaply, would you not? I should think so. We should certainly get it done more quickly, and that would be practically cheaper. I also believe that a large quantity of Queensland stock would be trucked here. At present a lot of the south-western Queensland stock travel through here and a large number of them I have no doubt would be trucked at Coonamble. A lot of the cattle that are now trucked at Bourke would be trucked here. They could come here equally as well as they could go to Bourke, and there would be less trainage.
335. From how far in the direction of Walgett would the traffic come to the railway at Coonamble? All the way I should think, and also from the other side of Walgett.
336. Do you think you would get a large amount of traffic from Walgett? I think so, from Walgett and west of Walgett.
337. Anything east of Walgett would go to Narrabri? Yes.
338. Does not all the traffic from Walgett now go to Narrabri? Pretty well all.
339. Unless the river is favourable, in which case it goes to Bourke? Yes.
340. You know all that country pretty well, I suppose? Yes; I have been over a good deal of it.
341. Does the same character of country that we saw about Coonamble extend up to Walgett? Yes, pretty well. There is less timber as you approach Walgett—very few of these belts of scrub, more open country.
342. As you approach Walgett, does not the land become less adapted for agriculture and partake more of pastoral country? I do not think so.
343. Say 20 miles this side of Walgett? I do not think so. There is a farmer named Bell on the Castlereagh, this side of Walgett, who grows splendid crops of wheat.
344. Then you think the land is equally good right through to Walgett? Yes, right to the flooded country on the Barwon.
345. How long has your railway league been in existence? In its present form some five or six years.
346. Railway communication has long been asked for by the people of Coonamble, has it not? Yes. When the late Sir John Robertson was Member for Mudgee he proposed a railway from Mudgee to Coonamble.
347. Was that after the completion of the line to Mudgee? Yes, immediately after.
348. Approximately, about fifteen years ago? Quite that, I should think.
349. Do you regard the country on the east of the line shown on the map from Warren to Coonamble as equal to that on the west? Yes, I think it is fairly equal.
350. In your opinion, which would serve the greatest number of people—a line from Dubbo to Coonamble, or a line from Warren to Coonamble—in view of the settlement that would probably take place if either line were constructed? A line from Dubbo to Coonamble would suit Coonamble better—and Coonamble represents a large proportion of the population affected—because it is shorter and a more direct way to Sydney.
351. The country to the west of the proposed line from Warren to Coonamble is all exceptionally good, is it not? Yes.
352. And if a line were constructed from Warren there would be a very large amount of settlement, and great wheat production would result? Undoubtedly; that is, always provided the price of wheat would stand the carriage to market.
353. If the Dubbo to Coonamble line were constructed it would not be of any use to the settlers in the part of the country just referred to? No.
354. As an old resident of the district and a man of long experience here, which, in your opinion, of the three railway routes mentioned would be the most desirable to construct? Personally, I think the railway from Mudgee to Coonamble would be the most desirable, but as President of the Railway League, and as a resident, I should like to see the railway brought from whatever point the Government determine.
355. Have you come to that conclusion by reason of the difference in mileage between Coonamble and Sydney? That is one reason.
356. What is the other reason? I think the country along the route from here to Mudgee is equally as good as that from here to Dubbo.
357. And how does it compare with the country on the route from Coonamble to Warren? Well, it is not so good. The land between Coonamble and Warren, taking the country right through, is better.

358. The country between Coonamble and Mudgee is more undulating than the country on either of the other lines? Yes. D. Fletcher.
359. And some parts are mountainous? Scarcely mountainous; but it would be more expensive, I should think, to build a railway over that country. 23 Mar., 1898.
360. Is the good country only patchy? There is a patch of inferior country between two patches of good country. The country in the valley of the Talbragar from Cobborah to Coolah is splendid country.
361. Capable of growing anything? I think so.
362. Do you know the country around Gulgong? Yes; it is very good country there.
363. Good country for growing cereals? Parts of it; it is patchy country.
364. Would it grow fruit? Yes; it would grow cereals and fruit. Of course there is an inferior patch of country from Gilgandra to Munderooran.
365. What percentage of the whole country between Coonamble and Mudgee would you regard as inferior? I suppose one-fifth.
366. Do you keep a record of the rainfall? Yes.
367. What do you make the rainfall at Coonamble? The average for a period extending over the last twenty years was from 22 to 24 inches.
368. Is that considered a suitable rainfall for the growth of wheat? It is considered by practical agriculturists quite sufficient for the growth of wheat. Last year was a bad year, and the rainfall was much below the average, and yet one man in the district—the only man that I know of who got his wheat in sufficiently early—had a really good crop. I refer to Mr. Whitney, whose place is 12 miles from here in an easterly direction.
369. I suppose he merely grew wheat for hay? Yes.
370. Is there anything else you would like to add? I would merely like to say, with regard to agriculture, that I am certain that if wheat is put in sufficiently early, a crop would not be missed more than one year in eight. I say this from experience during the last twenty-six years.
371. *Chairman.*] That is for wheat, not hay? For grain. You will get a fair grain crop when it is very little use for hay. If there is a dry spring it might be very short, still there would be a fair head of wheat.
372. *Mr. Roberts.*] Having in view the large wool traffic, and also the large wheat traffic—assuming that your anticipations would be realised—and the large number of fat stock that would be carried, do you think the railway, whichever way it might come, would pay? I think it would pay considerably over working expenses right from the start. The returns would increase every year.
373. Would that remark apply to either of the three lines we spoke of just now? I think so.
374. *Mr. Hassall.*] You say it has been your practice to send live stock to Dubbo or to Mudgee and train from there? Yes.
375. In the event of a line being constructed to Coonamble, would you still follow the same practice? As a rule, I think not. I am one of the small holders, and I would send away a few head, as they were fit. At present I have to wait until I have a sufficiently big mob to drive to either of these places. But if the railway were here I could send one, two, three, or four trucks as soon as the stock were fit.
376. In all probability the extension of a line to Coonamble would have the same effect as the extension of the line from Narrabri to Moree has had? Exactly the same.
377. It would put in the way of small holders facilities for sending away single trucks of fat stock when the market was good, and they had their fat stock available? Just so. This is exactly a similar line, and the circumstances of this part of the country are pretty well the same as those in connection with the line from Narrabri to Moree.
378. Your position in the matter is illustrative of that of hundreds of other settlers in the district who would be able to take advantage of means of transit to a good market when they had anything to send to it? Exactly so.
379. You do not think they would still follow the old practice, even when the roads were good, of driving the stock to Dubbo or Mudgee? I do not think they would, as a rule. Of course, if the market were low they might prefer to hold and send stock in that way, but I think the majority would truck.
380. It would be cheaper to hold them on the station, than to hold them on the road? Yes; but they might hold them on the station until they had a sufficiently large mob and then drive in if the market were very low. As a rule, however, I think they would do just the same as other people do, and use the railway. I notice that the majority in other places, as soon as they get the railway, truck the greater portion of their stock.
381. Do you think that the fact of a railway being in Coonamble would induce more people to travel than travel at the present time? I am sure of it. The fact of the railway coming to Warren has, I think, induced more people to travel here.
382. *Chairman.*] Suppose the line were constructed from Coonamble to Dubbo, instead of from Coonamble to Warren, would not the railway lose the western traffic coming on to the road between Coonamble and Warren, south of Bullagreen? The Dubbo line would lose that traffic; it would go to Warren.

William George Taylor, grazier, near Coonamble, sworn, and examined:—

383. *Chairman.*] What is the area of your holding? 47,250 acres.
384. How many sheep does it carry? 48,694. These figures are taken from the stock returns.
385. Your land is at present devoted principally to pastoral pursuits? Yes.
386. In your opinion, if there were proper means of communication, could cereals be grown here? I believe so. In any reasonably good season you can grow a capital crop.
387. How often would these reasonable seasons occur? I have been here since 1874, and during the whole of that time there might, perhaps, have been an aggregate of seven years when the crops would miss.
388. You believe you would get six crops out of seven? I think so.
389. What would be a fair average crop? The soil is remarkably good, and I believe our average would be from 26 to 30 bushels to the acre.
390. Are you taking plain country or the timber country? The plain country.
391. Do you believe the plain country is as good for the growth of cereals as the timber country? I may not be supported in my opinion by some others, but I believe the plain country will last far longer without manuring or other artificial aid.

W. G. Taylor.
23 Mar., 1898.

- W. G. Taylor. 392. Would you be prepared to go in for agriculture yourself if there were a railway here? I would to a certain extent. I am clearing land now. I have a little, but I am going in for a little more. I am cultivating principally for hay.
- 23 Mar., 1893. 393. Would you devote any of your country to the production of wheat? I would, undoubtedly. I believe that growing crops would pay us better than growing wool.
394. Where do you send your wool at present? For some years past I have sent it to Nevertire.
395. Where do you send your stock? I have sent my stock both to Dubbo and to Mudgee. I am getting two lots of sheep up now from Nevertire, but that is quite exceptional. I send principally to Dubbo and Mudgee.
396. Half and half? Well, not half and half, if the road suits me best I send to Mudgee for the reason that I save a good bit of trucking.
397. If the railway were here would you truck from here? I may say that I heard the evidence of Mr. Fletcher, and I perfectly agree with him with regard to the trucking of stock. It often happens that we have 200 or 300 head of fat stock fit to go to market, and it would suit us remarkably well to send them away; but we cannot send them with a drover for the lot is too small. If we had a railway we would put small lots of stock into the truck at once.
398. Do you know the district thoroughly? I think I do. My opinion with regard to the land between Coonamble and Warren is that there is not an acre which is not fit for the plough. I have been all over New South Wales, and the greater part of Victoria and Queensland, and I say without fear of contradiction that not excepting the Darling Downs, I have not seen in any of my travels a pastoral district so good as the Coonamble district.
399. And with regard to the country between Coonamble and Gilgandra? That is very good, the principal portion of it. As far as Gulargambone it is very good, and from there it is not so bad nearly to Gilgandra.
400. And from Gilgandra to Dubbo? It is very bad. It would, no doubt, all grow wheat for a time when cleared, but the expense of clearing would be enormous; but to the right, going up to Dubbo, and to the left, coming down the country, is very different. Turning towards Berida it is very fine country. There is some timber on it here and there, but it is good country. That is west of the road coming from Dubbo.
401. What do you think of the country east of that road? You have to get on to the river flats before it is any good. That would take in the timber belt I speak of. That is about 5 or 6 miles wide—the worst country. Even that will grow wheat, but it will not last so long.
402. Exactly where the road is located is inferior country? The most inferior country we have got.
403. That, you say, is a belt only a few miles wide? Perhaps it would run on an average 3 miles wide.
404. On either side of that the country is good again? Well, towards the river it is very good, and the Berida country is certainly very good.
405. What is your opinion of the line from Mudgee to Coonamble? I have never been to Coonabarabran.
406. Do you know the line right through to Mudgee? I know the country is very rough. In my opinion the country from Warren to Coonamble is the best on any of the three routes, and the adoption of that line appears to me to be the wisest way of solving the difficulty. What may be done in the future I leave the people of the future to decide.
407. You regard your station as capable of carrying a sheep to the acre? It has done so for a long time. It is usually a sheep-to-the-acre country, and I make that statement because I have been carrying that now for years past. I do not waste any of the land; I use it all.

Daniel Neil McAlary, selector, Weetalibah, sworn, and examined:—

- D. N. McAlary. 408. *Mr. Hassall.*] What are you? A selector. I reside at Weetalibah, about 20 miles from Coonamble.
409. What area of land have you? About 5,500 acres, and I run 5,990 sheep.
- 23 Mar., 1893. 410. Have you tried any agriculture? Nothing more than a little hay for my horses.
411. Is the carrying capacity of your holding equal to that of the rest of the land in this district concerning which we have had evidence? It will carry about one sheep to the acre; I generally carry a little more than that. It is exceptionally well improved.
412. By making the best use of the land, you will be able to carry at least a sheep to the acre? Yes. I kill all the timber, and make the best use of the land.
413. Do you consider the land held by you as a pretty good sample of the land in the district? Yes; a very fair sample.
414. And there are, I suppose, thousands of acres like it? Yes.
415. To what part of the railway do you send your produce? I have always sent to Dubbo.
416. You have not yet made use of the Warren extension? I had sent my wool before that line was opened, otherwise I would have sent it to Warren.
417. In the event of a railway being extended to Coonamble, I presume you would make use of it? Yes.
418. Do you think the extension of the railway would be beneficial to small settlers like yourself, who would be able to send away one or two trucks of fat sheep at a time, and who otherwise would not be able to send small lots to market? Yes; I am certain it would. We are often placed at a disadvantage by having small lots of fat sheep, which we cannot send to market. It will not pay to drive them 100 miles or so, and therefore we have to hold them, and possibly a dry time comes and the sheep lose their condition. It is very rarely that we have a flock of 2,000 fat sheep to send away, and it will not pay to drive less.
419. I suppose sometimes a dealer will go round and buy up a little lot from one and a little lot from another, and so make up a big lot? That very rarely happens. There is another thing: Very often we have fat sheep here, and there is a good price in Sydney, but owing to the roads being bad between here and Dubbo or other places, we cannot get our sheep to market. There is a scarcity of water on the road, or perhaps when you start from here with a lot of good fat sheep, before you get to the railway they will not be even good stores. I have been in that position. It is almost sacrificing them to send them away, unless there is plenty of feed and water on the road.
420. Are there many settlers like yourself in your locality? Yes; a good many.
421. All similarly situated to yourself? Yes; just the same.

422. Do you look upon this as a good district? Yes, an exceptionally good district.
423. Is there a good demand for land whenever it is thrown open? Yes; there is a very good demand.
424. I suppose there are more applicants than there is land to go round? Yes, I have known a great many people who have been waiting for months, and when a piece of land is thrown open there are twenty or thirty applicants for the one block.
425. Mr. Nash said there would be nearly a million acres of land the leases of which will fall in by the 30th July, 1900;—do you think there will be a good demand for that land when it becomes available? Yes, I am sure of it. I am sure there will be more applicants than there will be land to give them.
426. Do you regard the land as equally suitable for agriculture as for grazing? Yes.
427. Do you think the extension of the railway would cause a good deal of land to be put under the plough? Yes.
428. Would you put any of your own land under the plough? Yes; I intend to cultivate at least 500 or 600 acres as soon as there is a chance of getting the produce to market.
429. I presume others like yourself are similarly situated? Yes; many of my neighbours in talking over the matter say the same thing. We are only too anxious to get the chance.
430. Have you had any experience in farming? Not much in this district; only growing a bit of hay, and what I have seen of farming by other people.
431. You would find no difficulty in dealing with the land, if you had facilities? Not the least. I have had experience of farming in other districts, and was brought up on a farm.
432. You have heard the evidence given by Mr. Donald Fletcher and Mr. Taylor? Yes.
433. Can you corroborate what they have said? Yes; I consider they were very accurate in their statements; their evidence was reliable and to the point. I know both gentlemen, and consider they are very good authorities on the subjects upon which they spoke.
434. Since you have held the land which you now occupy, have you always carried a sheep to the acre? I have carried on an average over a sheep to the acre.
435. Year in and year out? Yes.

D. N.
McAlary.
23 Mar., 1898.

Edward Whitney, pastoralist, Nebea Station, sworn, and examined:—

436. *Mr. Roberts.*] What are you? A pastoralist, representing Nebea station, about 12 miles north-east from here.
437. What is the area of your holding? We are occupying about 80,000 acres now. There are about 40,000 acres of secured land—not all freehold, but secured to the station, and the remainder is leasehold and resumed area.
438. Do you devote the whole of that land to grazing? Yes; with the exception of a small paddock close to the homestead where we grow wheat for horse feed. We grow enough wheat for home consumption.
439. In growing wheat, have you been able to form any opinion as to the capability of the land;—how many bushels to the acre do you think the land would yield? Last year was not an exceptionally good one; in fact it was very dry all through the winter, yet most of the farmers who had a look at the crop said they reckoned it would give from 35 to 40 bushels to the acre; but we did not save it for wheat, we cut it for hay.
440. How many sheep have you? We have, besides sheep, about 300 head of cattle, and fifty-two horses.
441. Will your land carry a sheep to the acre right through? I do not think so.
442. What do you think would be a fair estimate of its carrying capacity? We have always proceeded on the principle of being understocked, and we have never run much more than one sheep to $1\frac{1}{2}$ acre or $1\frac{1}{4}$ acre.
443. *Mr. Hassall.*] Two sheep to 3 acres? Yes. From the way the selectors who have selected on our station have been carrying stock, it is possible that we could carry more than we have done, but it has been our policy so far to keep well understocked.
444. *Mr. Roberts.*] When you use the word "policy," I suppose you mean as regards bad seasons? Yes. I do not want any heavy losses. I would rather be a little understocked in a good season than take the full benefit of a good season with the risk of being caught by a bad season.
445. How long have you been in the district of Coonamble? I came to the station in 1881, so that I have had an experience of seventeen years.
446. Have you kept any record as to the good and bad seasons? I know them from memory. 1884 was a bad season; up to 1884 the seasons were very fair. They were good in 1881, middling in 1882 and 1883, and bad in 1884; 1885 was middling, and 1886 was bad again; 1887 was a terribly wet year, and in 1888 there was one of the worst droughts known in this district.
447. How long did it last? It was dry absolutely from October to March. Then from 1889 to 1892 we had a succession of very wet years. There was an abnormal rainfall which reached from 30 to 32 inches; in fact, I think that in one of those years it went as high as 33 inches.
448. What is the minimum rainfall? Ten inches, I think, was the lowest we had in 1888, and the maximum was about 33. When I went to Nebea in 1881, the average rainfall was considered to be 16 inches, and the average from 1881 up to the present time has been 22 inches.
449. Can you account for that in any way? No. For the last ten years the rainfall average has increased. The very heavy rains (1889–92) swell the average very much. There had been no heavy rain previously since the breaking up of the big drought in 1878 or 1879.
450. After your seventeen years' experience, are you able to say whether the droughts are periodical;—could you name any number of years when they are likely to occur—say every three years, or every four years? No; I could not say that. There seems to be no regular rotation, as far as I can see. We only have to be guided by Mr. Russell's idea of a nineteen-years' cycle. That seems to have come out fairly well, as far as I can tell; but it did not help us in 1888.
451. What sort of seasons did you have from 1888 to 1898? They were very wet for the first portion of the time, and then the rainfall kept gradually falling off.
452. I suppose it can never be too wet for you? Yes. Personally, I would rather have a moderately wet season than a very wet season.
453. But compared with drought? Of course, there is no comparison there. But as far as I can gather from experience here, it is not actually the quantity of rain that falls in the year, but the time of the year when it falls.

E. Whitney.
23 Mar., 1898.

- E. Whitney. 454. Which do you regard as your rainy season—winter-time? I can only tell you what the old residents tell me—that when you least expect rain that is the time you will get it. It is quite uncertain. Last winter, which should have been a wet season, was an exceptionally dry one. In other years I have known the road from Nebea into Coonamble to be almost running, say, for nine months.
455. I presume you send a large quantity of wool to Sydney every year? For the last few years the quantity has averaged about 800 bales, this year it is slightly under that, but for previous years it was, I think, 809, 814, and 806; last year it was about 720.
456. To which railway station do you send your wool? We contract with Wright, Heaton, & Co., and leave it to them to decide whether they will send it to Dubbo or Warren.
457. Do you, as a rule, sell the wool in Sydney? No; always in the old country.
458. What do you pay Wright, Heaton, & Co. to take your wool to Sydney? From £7 5s. to £7 10s. for greasy wool, and there is a condition that a pound extra may be charged for scoured wool.
459. Do you get your goods up from Sydney also by contract with Wright, Heaton, & Co.? It is not exactly by contract; they simply charge us with the railway rates, and add on so much for carriage.
460. Do you think the time has arrived when Coonamble should be connected with the railway system of the Colony? I certainly think the district is being kept back for want of a railway.
461. Are you very anxious for it yourself? I should like to see it. I think it will be a great advantage to us. I know we have good land out there, and although I do not suppose the present price of wheat may continue for all time, I think if we had a railway, and the rates were not too high, we should at times be able to send away a large amount of wheat.
462. What is your opinion with regard to the route;—I presume you know the country well on the three routes which have been referred to? I do not know the Mudgee line at all. I have travelled over the other two routes in the coach, but when I came from Dubbo it was nearly always at night time.
463. Have you never been from Coonamble to Dubbo by daylight? Yes.
464. Did you pay any attention to the character of the country? Yes; but I think it is very difficult, when simply travelling along one road, to form anything like an accurate idea of what the country is like 5 or 10 miles away. I do not know enough about the country on the different routes to give a definite opinion. Personally, I prefer the country I saw from the coach going towards Warren to that on the other line. But I have only travelled along the road, and I do not know what the country is like a few miles back.
465. If the land between Warren and Coonamble became available, do you think it probable there would be much agricultural settlement? I should think so, for the simple reason that it is a matter of rainfall. The rainfall there is just about the same as at Narromine, where they have been able to grow wheat successfully, and I think, as soon as the present leasehold areas are thrown open, there will be a very large amount of settlement between Coonamble and Warren.
466. Would that settlement be for purposes of agriculture? Primarily, I should think, for grazing, and no doubt if they had a railway, and if they found it paid them they would very soon go in for agriculture.
467. Is it not a fact that under favourable conditions agriculture gives a much more satisfactory return than sheep-farming? My experience with regard to the paddock of 15 acres on the station is that I get about £100 for the stack of hay, and if I run sheep on the land, even allowing that I might run two sheep to the acre, it would not amount to more than about £1 10s.
468. How much per acre do you make by sheep-farming in twelve months, a clear profit;—would you make more than 3s.? No, I do not think so—not clear profit, after paying all expenses.
469. Would 3s. be a fair estimate? I think it would be too high. I worked it out some years ago, and I think the net return was about 4s. without including interest on freehold land. Prices are lower now than they were then. We were getting then about 1s. 1d. for wool, as against 10d. this year. So that I think 3s. an acre would be rather high.
470. You can safely put it down at 2s. 6d.? Yes, I think so.
471. You said that the wheat you grew for hay would probably have yielded from 35 to 40 bushels to the acre;—is the land around the district capable of giving the same favourable result? I would not like to say that. This land we have ploughed up is close to the home station, and consists mostly of black soil. But our run comprises one-third black soil, one-third sand ridges, and perhaps one-third red soil. Of the latter I have no experience, but they tell me it is the best land for wheat purposes.
472. Is the black soil more difficult to work than the red soil? Yes, I believe so.
473. But is not the yield somewhat similar? From what I can understand you can get a better average return from the red soil.
474. You would not like to say that all the land around Coonamble would be equally as prolific as the land you cultivate on your station? No, I would not like to say that.
475. Do you send much fat stock to market? No; we have gone in mainly for breeding and selling to fatteners. Although we have some country on which we could fatten sheep, I do not think we could put the same condition on the sheep that other people could. Our next neighbours can fatten sheep in a way that we cannot do; they can put a top on them. When we have sent sheep down we have found that by the time they have got to Dubbo and have been trucked they have lost a lot of their condition.
476. Would a railway obviate that? There is no doubt we would send sheep away as fat where we do not send them now. We could send small quantities.
477. If the railway were constructed, do you think there would be a large quantity in live stock;—would it encourage the fattening of stock? I think so decidedly.
478. Would that occur more especially among the small settlers? They would be able to get stock away where they cannot very well do so now. It would not pay a man to travel down 100 or 200 sheep, but he might very easily put them into a railway truck and send them down.
479. Have you any knowledge of the country right out to Walgett? I have been out there once. I think it is the last time I will go there.
480. Why do you say that? Well, I got caught in the rain, and it is a horrible place to get out of.
481. Is the country similar all the way from Coonamble to the Barwon? I do not know about all the way.
482. Where does it change? To the north of Wingadee, when you run into a different kind of country. From here down to that point it is about the best country in the district.
483. How far is Wingadee from Walgett? About 40 miles.
484. Would that country be better adapted for pastoral than for agricultural pursuits? Yes; I should think it would. When I was down there it was pretty well all covered with water. 485.

485. Could you tell the Committee anything as to the traffic that might come from that direction if a railway came to Coonamble? No, I could not. At present I think a good deal of traffic from about Walgett goes down by Narrabri; but there is no doubt that from a point close up to Walgett the traffic would come this way. E. Whitney.
23 Mar., 1898.
486. Do you know much about Walgett and its trade and requirements? No.
487. Where did you reside before you came to this district? I was on a station on the Murrumbidgee, and before that on another station on the same river, below Hay.
488. How does the Coonamble district compare with the other districts of which you have had experience? I like it much better.
489. Do you regard it as an exceptionally fine district? Yes.
490. Well adapted for the purposes of an agricultural population? If they get a rainfall—yes.
491. If it suited an agricultural population one could, of course, be sure that it would be suitable for grazing? Yes.
492. For grazing and farming operations do you regard Coonamble as one of the best districts in the Colony? I do.
493. Taking all the circumstances into consideration, which do you think would be the best route for a railway to Coonamble? I am not well acquainted with the Mudgee route, but I believe it would involve heavy expense for railway construction. Speaking personally, I should like to see the railway from Warren, because if that route were chosen I believe we should get a railway almost at once. If the railway came from Dubbo there might be a saving in the distance to be travelled to Sydney, as compared with the Warren route, but I think it probable that if we were to select the Dubbo route we should have to wait a year longer, and I should like to see the railway at once. As far as the Mudgee line is concerned, I do not think I need bother myself about it, because by the time it was built I should not want to stop here.
494. Do you remember Warren before the railway was brought from Nevertire? Yes.
495. Has the construction of the railway tended to the improvement of Warren and the surrounding district? There seems to be more activity about Warren, but I have only travelled through once since the railway was extended.
496. Are the roads between Warren and Coonamble very bad at times? Yes.
497. Are they as bad as the roads between Warren and Nevertire were reported to be? No, I do not think so. That Warren to Nevertire plain is looked upon as one of the worst in the district. There have been some improvements to the road lately, and it is not nearly as bad as it was four or five years ago.
498. Do you think there would be a large passenger traffic from Coonamble to Sydney and intermediate places if the railway were extended from Warren to this place? Judging by my own case, I should think there would be a very large increase. With a railway I do not see any reason why I should not go down three or four times a year, but at present I never think of doing so unless absolutely obliged.
499. It was stated this morning by a witness that there was not an acre of land between Coonamble and Warren that was not fit for the plough; do you regard that as a correct estimate of the value of that country? I could not say that, because I do not know yet what sort of return that heavily-timbered country—that "monkey" country—would give if it were cultivated.
500. There is certain country between Coonamble and Warren known as the "monkey" scrub? Yes.
501. Do you regard that as the only poor country between Warren and Coonamble? Yes; and when you get close about Warren there is some country there of a similar nature, but I do not know how far it extends. It is timbered country, but for all I know to the contrary it may be excellent agricultural land.

John Landers, grazier, Tourable, sworn, and examined:—

502. *Chairman.*] Where do you live? At Tourable, down the Castlereagh, about 11 miles from here. J. Landers.
23 Mar., 1898.
503. What are you doing? Grazing.
504. What area have you? 21,000 acres. This area is held by Landers Brothers, I being one of the firm.
505. Any agriculture? None, except about 12 or 14 acres for hay.
506. Where do you send your wool? We contract with Wright, Heaton, & Co.
507. Do you know what it costs to take your wool to the railway station? I think Wright, Heaton, & Co. pay the carriers about £3 per ton conveyance to Dubbo.
508. Have you any idea of going into agriculture? No doubt I would do so if there were a railway to take the stuff away, but at present there is no market.
509. What experience have you had in growing cereals? I have tried a few times. I have grown some wheat in the district.
510. Do you believe it will do? I believe it will do well.
511. Do you desire to express an opinion with regard to the route the railway should take? No; I have no particular desire to express any opinion about it. In speaking of the country generally, I regard it as good country from Coonamble to Warren, and good country from Coonamble to Gilgandra. In my opinion the plain country will grow wheat. With regard to the country from Gilgandra to Dubbo, although it is poor adjacent to the road, I think it might be used for farming purposes, and at the back of this poor belt there is pretty good country.

John Rigney, grazier, near Coonamble, sworn and examined:—

512. *Mr. Hassall.*] Where do you reside? Ten miles east from Coonamble. J. Rigney.
23 Mar., 1898.
513. Are you a pastoral lessee? I am a conditional purchaser and a leaseholder.
514. What is the size of your holding? About 11,200 acres, comprising family selections.
515. Is it devoted principally to sheep farming? Yes.
516. You are conversant with the proposal before the Committee to extend the railway from Warren to Coonamble? Yes.
517. Do you approve of that extension? I do not care to express an opinion as to which route the railway should follow.
518. I presume you have heard a good deal of the evidence already given with regard to the character of the country from Warren to Coonamble? Yes.

- J. Rigney.
28 Mar., 1898.
519. As to its suitability for settlement, its excellent carrying capacity, and that also if railway communication were provided a great deal of this country would be put under agriculture? Yes.
520. Do you endorse those statements? Yes.
521. You have also heard it stated that the extension of the railway into the Coonamble district would be very beneficial to small settlers, as it would enable them to get their fat stock away to market whenever the stock were in prime condition and the market was fairly good, that it would practically give them command of a market for their fat stock, instead of the stock losing condition on the road when being taken to the present trucking point at either Dubbo or Mudgee? Yes.
522. I suppose you have not always a couple of thousand sheep to drive to Mudgee or Dubbo, and consequently have often to miss a good market, whereas if means of transit were available, you could send two or three truck-loads by the railway to your own advantage, and with benefit to the railway system? Yes.
523. Is the carrying capacity of your land equal to that of other lands already described as carrying, on an average, a sheep to the acre? Not quite as good.
524. It would appear that at the time you made your return of stock you were carrying a little over a sheep to the acre? Yes.
525. And judging from your own experience, I presume the carrying capacity of your land is pretty well equal to that of the other lands in the district? Yes.
526. I suppose you did not select recently? No.
527. You had a choice when you came here? Yes.
528. You would not pick the worst land, would you? No.
529. You are well satisfied with the progress you have already made? Yes.
530. And is it your opinion that the Coonamble district is a good district to live in, with every prospect of a man who settles down in it succeeding? Yes.
531. But you think your position would be materially benefited if you had better means of communication with the markets of the Colony? I do.
532. Have you tried agriculture? Yes.
533. Have you had any experience of farming? Yes; I am a practical farmer.
534. Do you think agriculture would pay you in conjunction with grazing better than grazing alone? I believe it would.
535. If you had facilities for sending produce to market would you be prepared to put a lot of your land under cultivation? Yes, if I could see my way clear to make a profit.
536. Being a practical man, you think you could deal with it profitably? Yes.
537. I suppose you think, like many others, that the time has arrived when Coonamble is entitled to railway communication? Yes.
538. You are here to support that to the best of your ability? Yes.
539. Are your neighbours of the same opinion as yourself? Yes.
540. You have a few neighbours who are similarly situated to yourself? Yes.
541. They are settled on good country? Yes.
542. Carrying on pastoral occupation at the present time, but hoping for a change in the programme which will enable them to combine agriculture with sheep farming, and so better their position? Yes; I believe that is the idea of most people in that locality.
543. Is your country well watered? Fairly well.
544. Artificially or naturally? Artificially—with tanks.
545. I presume you are under the impression that you could get artesian water if necessary? Yes.
546. And if the present supply failed you are aware that under the provisions of the Artesian Wells Act a group of settlers could make the necessary arrangements for a bore to be put down to serve the lot? Yes.
547. Has the discovery of artesian water in your opinion been of any great benefit to the district? I think so.
548. I suppose it has removed from your minds any anxiety which might otherwise exist as to the failure of the water supply? Yes.
549. And water supply in this country is absolutely necessary to enable a man to carry on? Yes.
550. Do you fatten many stock in the year? Yes.
551. How many? Just according to the season.
552. Do you go in for breeding or fattening? For fattening.
553. Do you buy wethers? Yes.
554. You cut the clip off them, fatten them up, and send them away to market? Yes; I sometimes send them away in wool.
555. You do not waste your country by breeding? No; I do not breed at all.
556. In the case of a man like yourself, the advent of a railway would mean a better command of a market with consequently better prices? Yes.
557. And I presume you would not object to pay the railway rates upon even a longer journey;—even if it were decided to bring a railway *via* Warren to Coonamble you would still use the railway to send your stock away? In some cases. For small lots I should certainly use the railway; but in the case of large flocks, if the roads were good, I should drive them.
558. Where to? Mudgee.
559. In consequence of the shorter distance that the stock would have to be carried by rail? Yes.
560. Suppose the railway were constructed, and the roads were always good to Mudgee, and you could always raise a couple of thousand sheep to send there, it would be no use bringing the railway here, would it? It would be for wool. But there is no fear of that, because the road will never be always good from here to Mudgee. It is only good at certain times of the year.
561. Have you any knowledge of the country between Coonamble and Warren, Coonamble and Dubbo, and Coonamble and Mudgee? Yes: I know the three routes.
562. You have heard the description of the country given by previous witnesses? Yes.
563. Is that description, in your opinion fairly accurate? There are two routes from here to Mudgee; there is a surveyed line about 20 miles north of Gilgandra. I can endorse the statements made by previous witnesses with regard to the character of the country.

William Farrell, grazier, near Coonamble, sworn, and examined :—

W. Farrell,
23 Mar., 1898.

564. *Mr. Roberts.*] What are you? A grazier.
565. How many acres have you? 2,560.
566. Where is it situated? At the back of Bundy, about 14 miles west from here.
567. Do you confine your attention entirely to grazing? At present there is nothing else to do.
568. Did you ever try any wheat? I did.
569. With what result? Very poor. Three years ago was a bad time.
570. Have you not tried any since? No; I have some land broken up this year.
571. You have heard previous witnesses speak of the agricultural capabilities of this district;—do you agree with the statements made, or do you hold an opposite opinion? The success of agriculture would depend upon the season. If we get a fair season, we can grow wheat. I have been here ten years, and I think we could have grown about eight crops out of the ten. I have seen crops growing in the district as good as ever I saw on the Hawkesbury—that is, for straw crop.
572. You have an intimate knowledge of farming? Yes.
573. What is your opinion as to the proposed railway from Warren to Coonamble; do you think the time has arrived when Coonamble ought to have a railway? Yes; I think it ought to have had a railway years ago. We would have been far more advanced if we had had a railway ten years ago.
574. Would you be a customer to the railway if it were constructed? Yes.
575. Where do you send your wool now? To Dubbo.
576. Would you put your wool on the Coonamble station, if there were a railway? Yes.
577. What does it cost you to send it to Dubbo now? Last year it cost £2 17s. 6d. a ton from my shed to Dubbo, and £3 5s. 3d. a ton on the railway from Dubbo to Sydney. I have a contract with Wright, Heaton, & Co. to take it from the shed and deliver it to Dalgety & Co. for £6 odd.
578. Where do you generally sell the wool? In Sydney.
579. What is the carrying capacity of your land;—can you run a sheep to the acre; you can put a sheep to the acre on, but will they live? You would starve them. I run 2,000 sheep, about fifteen head of cattle, and ten or eleven horses. I have now to sell 500 of the sheep off, or else starve the lot and get a bad crop of wool next shearing on account of the dry weather.
580. During the ten years you have been there have you had a good return from the outlay of your capital? In the first year I did not have a good return because of the 1888-9 drought.
581. But, taking the whole time, you have done fairly well? Not as well as many others. When I first began I had a bad class of sheep, which was a drawback.
582. You have made a good living? Enough to eat and drink; that is all.
583. Do you regard 2,560 acres as sufficient to enable a man in this district to get a good living and rear a family? No, not in a proper manner.
584. What would you regard as a sufficient area—4,000 acres? 2,560 acres will do for a single man; but to rear a family properly that area, unless you have the cream of the district, is not enough. All the cream of the district is gone.
585. Do you not regard your holding as portion of the cream of the district? I do not; there is too much bad country on it. I suppose out of the 2,560 acres there are 300 acres with no grass at all on—as bald as this table. It will not grow grass—scalded country.
586. Is there much of that class of country about this part of the district? Any amount of it. What is going to the ballot now is principally that class of country.
587. Did you hear all the witnesses to-day? Pretty well.
588. Do you disagree with anything that was said? I do not hold with everything.
589. On what points do you disagree with the evidence given by other witnesses this morning? In the first place, they talk of the carrying capacity of the country, but what is the good of a man saying it will carry so much stock when he has to cut down scrub four out of five months to keep his sheep alive? There are many who gave evidence this morning who have had to do that.
590. When you heard it stated that certain lands to which reference was made were indicative of the general character of the country, you did not agree with it? No; not all of it. Some of the land about here on the frontage is as good as there is on the face of the earth. Drovers from Queensland reckon Coonamble a paradise, and Gulargambone they consider the best country in the Colony.
591. Do you know the country from Coonamble to Warren? I have been along the road; I have not been over it for any distance.
592. Do you know the country from Coonamble to Dubbo? I have been along the road, and I have heard statements from others who have travelled over that country.
593. Taking the line from Warren to Coonamble, as shown on the map, what percentage of inferior land is there on the west side? I should not say there was much inferior land at all. With regard to the Dubbo route, portion of the country between that place and Gilgandra is good; I saw it as I went along in the coach. I should say it would do for agriculture for a few years; but it would cost a lot of money to clear it. Off the line, where the country is ringbarked, they tell me it is good land.
594. Taking a circle, with Coonamble as the centre, do you regard this district as exceptionally fine country for agriculture? It must be to return so much stock. I suppose the Coonamble sheep district returns more stock than any other district in the Colony.
595. You said there was some scalded country on your holding, and that there was any amount of it in the district? Yes.
596. How far from Coonamble? You need not go 6 miles from Coonamble to find it. You see only the pick of the country along the frontages. You get scalded country and inferior country further back.
597. Holding that opinion, how can you call Coonamble one of the best districts in the Colony? I say from what I have heard.
598. What percentage of inferior land is there within 20 miles of Coonamble? I think 25 per cent. is poor country. I mean country not equal to the other country.
599. Do you hold any opinion as to the best route for the railway to take? I suppose that for the present time the Warren route would be the best in the interests of the district, but for the future there is no doubt the Mudgee line would be the best.
600. Have you been over the Mudgee route? Yes. I have seen the country as I went along, and I have heard from others who farm there that there is a lot of agricultural land between here and Mudgee.

- W. Farrell. 601. Why do you favour the opinion that that would be the best line? Because it would open up a large extent of agricultural country in time to come.
- 23 Mar., 1898. 602. What advantage would you derive from railway communication? I could send live stock away. At present I have to wait until my neighbours have some, and so make up a flock. I endorse all that has been said by previous witnesses with regard to the carriage of live stock.
603. *Mr. Hassall.*] Your acreage is 2,560? Yes.
604. How long ago did you select your land? On the 16th December, 1887; but I did not come here until the following year.
605. You had pretty well a pick, I suppose, at that time? I was a "chum" at the time; a man showed me, and I dropped down where he put me.
606. Perhaps if you had had a little more knowledge you might have got a better piece? Yes; I could have got better country.
607. You say you have 300 or 400 acres not much good? Yes; scalded land.
608. If that land were cleared and made ready for agriculture, it would probably be as good land as the other? Not as good as the plain—not for agriculture.
609. Still, you might make some use of it? You would have to work it up to make it grow grass.
610. It is no good now? No; nothing but roley-poleys grow on it.
611. So that, practically, out of 2,560 acres you have 300 or 400 acres that are no good? Yes; inferior land. I reckon it is worth about 5s. an acre.
612. You could not get along with much less than 2,000 sheep? No.
613. You have 2,560 acres of land, of which you say 300 or 400 acres are no good, and this land carries, besides fifteen head of cattle and ten or eleven horses, 2,000 sheep, so that, practically, it is nearly as good as anybody else's land, and will carry about one sheep to the acre? Yes; the good land will.

William Nott, grazier, Gidgenbah, sworn, and examined:—

- W. Nott. 614. *Chairman.*] What are you? Sheep farmer.
- 23 Mar., 1898. 615. Where do you live? At Gidgenbah, about 12 miles west from Coonamble.
616. What is the extent of your holding? Eight thousand acres.
617. How many sheep do you run? I generally register about 8,000. I do not carry them all through the year.
618. Where do you send your wool? I have sent it to Nevertire and to Dubbo.
619. What is the road carriage to Nevertire? I do not know; I sent the wool right through by agents.
620. You have been sending your wool also to Dubbo? Yes.
621. In future, will you send to Dubbo or to Warren? To Dubbo.
622. How far is it to Dubbo? 112 miles from my place.
623. And how far to Warren? About 100 miles.
624. How long have you been in the district? I have been living in the Coonamble district about fourteen years.
625. Have you seen any wheat grown? I have seen a little hay.
626. Have you seen wheat growing in your neighbours' places in the district? Not in this district; I have only seen it growing for hay. I have never seen a crop of wheat in this district. I have never grown any hay.
627. Do you believe the district will grow wheat and hay? Only one year in every three.
628. You believe there is not enough rainfall? Yes.
629. Suppose there were a sufficient rainfall, could most of the district grow wheat? It would grow sometimes too much; there would be too much straw, and very little wheat.
630. You are doubtful about the agricultural possibilities of the district. Yes, I am. I lived in the Mudgee district for sixteen years. I grew wheat there.
631. Then, the railway question, as far as you are concerned, resolves itself into cheaper carriage for your wool to Sydney and the opportunity of getting away your fat stock in small lots—that would be the benefit of a railway to you? Yes; as long as it was not too far round, and the expense was not too great. In my opinion, the Mudgee line would be far the best, and next to that the Dubbo line. I do not care about the line to Warren at all.
632. What is your reason? It is too far round; it would cost too much in haulage.
633. Do you know how much more it would cost in haulage? No, I could not say. It would be difficult to say what the Government would charge. Where the line is surveyed from Coonamble to Mudgee is good agricultural land all the way. I have been along there and I know it.

Henry Lyons, manager, Wright, Heaton, & Co., Coonamble, sworn, and examined:—

- H. Lyons. 634. *Mr. Hassall.*] I believe you are in charge of Wright, Heaton, & Co.'s business in Coonamble? Yes.
- 23 Mar., 1898. 635. Would you kindly give the Committee as nearly as possible the road rates for the carriage of wool and general goods from Coonamble to Dubbo? I reckon about £3 a ton from Coonamble to Dubbo. From some places it would be less, and from others more, but £3 would be the average from the Coonamble district. Sometimes the rate is cheaper, and in a wet winter it might be dearer.
636. What is the lowest you have ever got for carriage? £2 a ton.
637. And the highest? About £2 10s. or £3.
638. So that you have an average of £3, and the price occasionally comes down to £2 when the season is exceptionally good? Yes.
639. When the rate is £2 a ton, I presume both grass and water are very plentiful? Yes.
640. And, in all probability, when the rate is £2, there is some agreement with regard to back loading? Generally, when the rate is £2 it is in the wool season, and the carriers have loading both ways which enables them to carry goods a little more cheaply than if they had to come back empty. The rate of carriage from Mudgee is about £2 10s., but there is very little carried. The average rate for road carriage from Coonamble to the railway system of the Colony is £2 15s. per ton.
641. Do you care to express any opinion personally about the route of the proposed railway? Personally, I would sooner see the line come from Mudgee, if we could get it.
642. Is that in consequence of the shorter distance to Sydney? Yes.
643. Do you think, from a national standpoint, it would be advisable to adopt the Mudgee route, though it might cost a great deal more? Yes.
- 644.

644. What would be the corresponding advantage? I suppose it would be about 80 miles nearer Sydney, and the line would open up a large extent of agricultural country.
645. You know the country pretty well? I do.
646. And you know that a line of railway through there would open up a large extent of land suitable for agriculture? Yes; in fact there is a lot of that country settled now—good farming country.
647. What is the country like between here and Mudgee? Where the line is surveyed, and a little off the line, it is very good agricultural country. From Gilgandra into Mundooran it is bad country. The railway line is more to the east, and goes through better country than that.

H. Lyons.
23 Mar., 1898.

THURSDAY, 24 MARCH, 1898.

[The Sectional Committee met at the Municipal Council Chambers, Coonamble, at 10 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. CHARLES JAMES ROBERTS, C.M.G. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Warren to Coonamble.

Clement Dillon, Crown Lands Agent, Coonamble, sworn, and examined:—

648. *Mr. Roberts.*] What are you? Crown Lands Agent at Coonamble.
649. What are the boundaries of your district? It embraces a radius of about 40 miles from Coonamble.
650. I understand you have prepared a statement? I went through the books, and I found that there were 1,465 conditional purchases in this land district representing an area of 443,363 acres, and 765 conditional leases with an area of 715,942 acres. There are thirty-two settlement leases with an area of 89,149 acres, thirty-five annual leases representing 35,065 acres, and eleven homestead selections representing 413 acres. These latter lands are suburban areas about the townships of Gilgandra and Gulargambone. In addition, there are the lands embraced in improvement purchases, auction purchases, volunteer land orders, special purchases, and special leases. The area of these lands would amount to some thousands of acres, but we have no record in the local office of the exact figures. Besides these, are the leasehold and resumed areas of pastoral holdings. There is a *Gazette* notice showing the pastoral leases. It does not give the area, but the majority of the leases fall in on the 10th July, 1900. There will then be a good deal of land available for settlement lease and other applications.
651. Are the applications for land very numerous? Yes, considering. There have been thirteen settlement lease areas declared, embracing twenty-nine farms, and they have been balloted for by 560 applicants. If Coonamble had been more easy of access, I am sure the number of applications would have been doubled. I have had many inquiries from Victoria, but when the parties ascertain that Coonamble is not on the railway line they do not go any further; they find that it is too expensive to get here, and that the journey occupies too long. There were several Victorians over here, but they did not wait or come here again.
652. Should the railway be constructed, do you think, when the leases fall in, all the available land would be speedily taken up? I am sure it would—that is, judging from the number of inquiries made now, and the number of applicants who come forward when any land is thrown open.
653. Have you any opinion as to the class of the country? There is one area to be thrown open on the 14th April. It is on the road from Coonamble to Warren on the Upper Merri Merri. There are three farms to be thrown open, and one farm comprises 3,022½ acres. The capital value is assessed at £3,777 16s. 3d. That would be at the rate of £1 5s. per acre, and the annual rent charge would be £47 4s. 6d., or about 3½d. an acre. I expect there will be over 300 applications for these farms. I may say that this land is described as in the artesian bore area, and I think there is a bore within a few miles of it.
654. Do you know whether the land is suitable for agriculture? I have no personal knowledge of that country.
655. How does the surveyor describe it? The farm we have just spoken of is thus described in the *Gazette* notice:—

C. Dillon.
24 Mar., 1898.

Ewenmar—Level country, with light sandy ridges, black and red soil on plains, and sandy soil in timber; about 1,000 acres of thick forest, timbered with box, pine, oak, budtha, wilga, and belar; also scrub of currant bush, &c., the remainder plain country, with a little scattered myall and box; suitable for agriculture, after clearing, in parts; all well grassed fattening country.

The other two farms are somewhat similar. There is to be a land sale here next Tuesday. The land to be sold is in different parts of the district, and the upset price averages £1 5s. per acre. Some of this land is situated 4 miles from Coonamble, some 26 miles, some 9 miles, some 12 miles, some 21 miles, some 25 miles, some 20 miles, some 19 miles, and other distances from Coonamble.

656. They will all be affected by the proposed line of railway? I think so—at any rate a great number of the portions will. I may say with regard to town and suburban lands, that on the 28th September last at a sale of Crown lands there were sold thirty-one town lots, embracing 13½ acres, which realised £608 5s., or an average of about £44 15s. per acre. That is the land situated round the artesian bore, and is within the municipality. Then there were fifty-five suburban lots of an area of 514 acres, which realised £1,914, or an average of about £3 14s. per acre. Again on the 8th February last, there was another sale, at which nineteen town lots were sold, representing 8 acres, and realising £363 5s., or an average of £44 4s. per acre, and at the same sale, eighteen suburban lots were sold, representing 16½ acres, which realised £797 5s., or about £4 17s. 6d. per acre.

657. Do the prices realised for these lands show a marked increase within the last few years—say five years? Yes; a big increase.

658. What could these town lots, which were sold for over £40 per acre, have been obtained for five years ago? If they had been put up for sale then, I do not think they would have realised half that price.

659. During what period has this marked increase in the value of land taken place—in the last two years, or eighteen months? I should say, the last two years.

C. Dillon. 660. What is the value of the land in the principal street of Coonamble;—is it sold by the acre or by the foot? I do not know of any being sold during the three years that I have been here. I know the owners want a very high price. The land in the main street, I believe, is sold by the foot. I think it is worth about £10 a foot. The amount of money paid through the office for lands is about £40,000 a year. That has been the amount for the last three years that I have been here. That approximately represents the amount paid to the Lands Office and the Treasury for lands in the Coonamble district, and is exclusive of rents for pastoral holdings.

Thomas Dun Bertram, Mayor of Coonamble, sworn, and examined:—

T.D. Bertram. 661. *Chairman.*] You are mayor of the town of Coonamble? Yes.
 662. Can you give the Committee any information with regard to the municipality? The town was incorporated in 1880. It has a municipal area of $23\frac{1}{2}$ square miles, equal to 15,040 acres. In 1897 there were 1,356 inhabitants within the municipal boundaries. The gross unimproved capital value of private lands within the municipality is £30,733. The improved annual value for municipal purposes is £13,145. The rates amount to £623. There is a general rate of 1s. in the £, a water rate of 1s. in the £, and a lighting rate of 2d. in the £. There is a debt of £1,000, and the amount owing to the Government in connection with the water scheme is £5,594, and we have a hundred years within which to pay principal and interest. The annual payment is about £255, and the return on the water shows a clear profit.

Peter Aloysius Polin, storekeeper, Coonamble, sworn, and examined:—

P. A. Polin. 663. *Mr. Hassall.*] You are a storekeeper carrying on business in Coonamble? Yes.
 664. How long have you been residing here? I came here in 1876.
 665. And you have practically seen the district grow up from small beginnings? Yes. I have been here continually since 1876, with the exception of about nine months.
 666. Was there much settlement in the district when you first came here? The settlement consisted only of the squattages; there was no such thing as a selector in those days.
 667. Was the town very large then? No; I do not think the population of Coonamble proper was more than 400 or 500 at the outside.
 668. From your experience, is it a good business district? Yes; if it were not I should not have remained here for twenty-two years. I have brought up a large family here.
 669. I suppose you deal in general merchandise, station supplies, and almost everything in the way of stores requisite for pastoral and agricultural occupation? Yes.
 670. Can you give us any idea of the quantity of goods brought into Coonamble? I can give you the amount I have paid during the last six or seven years for carriage from Dubbo to Coonamble.
 671. Do you get all your goods from Dubbo? Principally.
 672. Do you pay a through rate, or do you pay railway rates to Dubbo and road carriage from thence to Coonamble? We pay the railway rates to Dubbo. From July, 1891, to July, 1897, the amount we paid for carriage from Sydney to Coonamble was £7,364 18s. 11d. That does not include most of the flour we sold, which, of course, would be a very large item. The reason why the flour is not included in the figures just given is that very often we buy the flour landed in Coonamble, so that we pay the miller the carriage.
 673. Practically, the miller pays the carriage and you repay him in the increased price you give for the flour? Exactly so.
 674. Are there any other storekeepers in Coonamble doing anything like the same business that you do? There are other storekeepers, but I cannot say what business they do.
 675. In the event of a railway being constructed from Warren to Coonamble, would you obtain all your goods by that route, or would you still get them by Dubbo? I could scarcely promise that. It would depend on circumstances; but I should think the business people would avail themselves of the railway communication. I cannot say for certain.
 676. Taking the through railway rate from Sydney to Dubbo and the road carriage to Coonamble in round figures, it amounts to £6 a ton; the estimate of the railway authorities is that coming through from Sydney to Coonamble, *via* Warren, the rate would be reduced to about £4 3s. 11d.;—a considerable saving would therefore be effected in carriage if a railway were brought from Warren to Coonamble? Yes.
 677. I presume you will admit that railway carriage must be much cheaper than road carriage? Yes.
 678. And consequently, if your goods could be landed more cheaply here, even if the railway came round *via* Warren, than they can be brought by rail to Dubbo and by road to Coonamble, you would use the cheaper mode of carriage? Certainly; even if the railway were dearer we should have to use it for convenience sake.
 679. But there is no possibility of its being dearer? During the last five or six years teams have competed with the railway right on to Sydney, and goods have been delivered at Coonamble by team for less than we could get them by rail.
 680. How far do your business relations extend round Coonamble? About 30 miles.
 681. Beyond that radius I presume the people are served by Coonabarabran, on one side, and Walgett on the other? Yes, and Warren.
 682. The Western line running through to Bourke would tap the country in that direction? Yes.
 683. This being the distributing centre for the Castlereagh country, and, I suppose, portions of the Merri Merri and the Marthaguy? Yes, the Merri Merri. We do very little business with the Marthaguy; it is too close to Warren.
 684. Do you look upon this as a pretty sound district? I do.
 685. And a progressive district? Yes, certainly. The population is increasing daily. Properties have not depreciated much in value during the last few years.
 686. Has settlement increased largely (say) during the last ten years? Yes; I suppose it has increased fully 50 per cent. during the last few years.
 687. With every prospect of a further increase when more land is made available? Undoubtedly.
 688. Has it been your experience that there has been a great demand for land in this district when it has been thrown open? Yes.
 689.

689. And I presume a desirable class of people has come to settle here? Yes; I reckon that there are some of the finest settlers in the Colony round here. Men came here with a fair amount of capital. P. A. Polin.
 690. Have you noticed any progress in the direction of agriculture? Yes. 24 Mar., 1898.
 691. When did that commence? Twenty years ago, if there were a bit of hay grown in the district it was worth from £15 to £30 a ton, and now you can buy it for from £3 10s. to £5 or £6.
 692. That is in consequence of the increased quantity that is grown? Just so; in fact, it was not grown at all in those days, except by irrigation.
 693. Do you think this country is suitable for agriculture? I do not profess to be a judge, but I think a great portion of it is.
 694. You have had business transactions with people who have gone in for agriculture, and would be able to form an opinion? Yes. I think the whole of the country within a mile of the river on either side is well adapted for agriculture.
 695. Extending right up as far as Gilgandra? Well, at any rate to Gulargambone, a distance of 30 miles.
 696. Do you care to express an opinion as to which is the best route for a railway to Coonamble? I am a member of the Railway League, which is not pledged to any particular route. All we want is railway communication. Speaking personally, at the present time I should prefer to see the railway come from Warren, because I do not expect to live for more than twenty or thirty years longer, and I should like to have a little comfort in my old age, and be able to take my family down to Sydney.
 697. You think you would get a railway quicker by Warren than by any other route? Certainly I do.
 698. Is about £2 15s. a ton the average rate of carriage from Dubbo? The rate at present from Dubbo to Coonamble is £2 10s. I have paid £15 a ton.
 699. Is an average of £2 15s. about a fair thing? Yes; but I think it is a low rate of carriage. Store-keepers look upon £2 10s. as very low. £2 is the lowest I have paid, and the rate has varied from that price up to as high as £15. I suppose during the last twenty years it would average £5 or £6, or perhaps more.
 700. If you put it at £2 15s. that would be a fairly low estimate? I should think that would be the lowest. In a dry time it would be impossible for teams to carry for that money.

Arthur Edgar Newton, Road Superintendent, Coonamble, sworn, and examined:—

701. *Mr. Roberts.*] What are you? Road Superintendent. A. E. Newton.
 702. How long have you filled that position? For fifteen years. I have been about one year in the Coonamble district. 24 Mar., 1898.
 703. Where were you stationed previously? In different parts of the Colony. Immediately before coming here I was on the Lachlan, where I lived for ten years, and before that I was on the Manning, and in different parts of the Colony.
 704. What is the extent of your district? About 100 miles by 100.
 705. How far towards Warren does it extend? It joins the Dubbo district at Warren.
 706. You know the railway line, as surveyed, from Dubbo to Coonamble? Yes.
 707. Do you go over a great portion of that line? I go as far as Gilgandra in that direction.
 708. Is the road from Coonamble to Warren very bad unless the weather be very dry? It is very bad except in dry weather. It is all black soil.
 709. There are several parts of a road between here and Warren which have been corduroyed? Yes.
 710. What is the cost per chain of that kind of road? The cost so far has ranged from 7s. 6d. down to 4s. 6d. per yard, which would be £7 14s. a chain. We have not been constructing that sort of road very long.
 711. What would be a fair average for a chain? About £7 a chain, which would include drains. The corduroy, with drains and culverts included, would cost about £716 per mile—say between £700 and £800.
 712. How does that compare with the cost of maintenance for ordinary roads? It is about the average I should say, or perhaps a little above; we usually pay 7s. a yard for metal. We cannot do any metalling here, as there is no stone available. The corduroying is cheaper than metal would be in other districts of similar black soil formation to this district, as such country would require 1¼ or 1½ cubic yards of metal to the lineal yard of road.
 713. Apart from the corduroy, what does the road between here and Warren cost per yard? Without corduroy, we could not make any road that would stand. We could make a road for light traffic by throwing up the soil, but it would be destroyed by the first heavy team going over it.
 714. Is most of the money that you spend on the road between Coonamble and Warren confined to the corduroy? Yes; you might say exclusively, including the culverts and drains.
 715. How long have you been adopting the corduroy style of roads? About four years.
 716. Do you find it answers satisfactorily? Yes, it answers very well indeed. The surface is adzed so that the vehicles run smoothly over it. This is the first district in which I have seen it tried. The old-fashioned corduroy was always condemned by the Department, because it was not adzed on the surface. By adzing it on the surface and using pine, which is very straight, a capital road is made, and it should last at the very least fifteen years.
 717. Is there any indication of the white ant? We have not noticed any yet.
 718. I suppose your official work takes you about the country a good deal? Yes.
 719. Could you give an opinion as to the value of the country for the growth of cereals? I could not from actual experience, but only from observation.
 720. There is a good deal of wheat grown here for hay-making? Yes, a good deal.
 721. Have you seen it? Yes, I have used the hay.
 722. From what knowledge you possess, would you look upon the district as one likely to become an agricultural district? I think so. Of course, the whole point is in the rainfall. It is sufficient, I believe, but the success of wheat-growing depends upon the season at which the rain falls.
 723. Assuming that the rainfall is all that could be desired, do you regard the soil as admirably adapted for cultivation? I think so. Along the river towards Gilgandra very good wheat is grown, and that is about the poorest of the soil, being of a sandy nature. It grows very good wheat.
 724. How does this district compare with other districts you have been in, say the Lachlan;—in what part of the Lachlan were you? At Forbes, and I used to follow the Lachlan for about 120 miles. I should say this was better pastoral country than the Lachlan, although the flats on the Lachlan are richer than the richest land here. Still, on the average, I should say the land is a great deal better here.

- A. E. Newton. 725. You have been over the line, I suppose, from Coonamble to Dubbo, or, at any rate, as far as Gilgandra? Yes.
- 24 Mar., 1898. 726. How do the two lines compare—that from Coonamble to Warren and that from Coonamble (say) to Gilgandra? I should say that the Warren land was very much superior to the Gilgandra country. In wet weather the Warren road is almost impassable, because there is so much black soil, and the other road is fairly good, owing to the quantity of sand.
727. As a country suitable for cultivation, do you prefer the Warren route? Yes; I should say it was very much superior to the land on the other route for any purpose.
728. Do you know the land between Gilgandra and Dubbo? I have been through it in the coach, that is all; I do not know very much about it.
729. Would you care to give an opinion as to which line would suit the greatest number of people;—have you been to Mudgee? I have crossed that part of the country at different points; but I have not been along the route as much as I have along the other two routes.
730. Do you know it sufficiently well to draw a comparison? No; I do not think I do. Some of the country is good; but there are belts of bad ironbark in the country I have seen.
731. From your knowledge of the various facts that come into one's consideration when thinking over which line it would be best to construct in the interests of the country, would you like to give an opinion as to which line you think would best serve the interests of the people? I should have thought the Mudgee line would have been better, although it could not be a light line. I say this only from what I have heard. I cannot say it is the best from having seen the country. But if a light line were built I should say a better line of country could not be found than the Warren line.
732. Do you prefer the Warren route to the Dubbo route? The Dubbo route would, of course, be shorter, and there is more present settlement along it; but it could not be a light line. I think whichever line were constructed it would take about the same amount of traffic. The traffic would find an outlet by railway even if the distance were a little greater, especially in wet weather, when all the roads are practically impassable.
733. Are the Committee to understand that you would prefer to see the line from Dubbo rather than from Warren? Personally I would agree with the evidence that has been given, and with the view of getting a line at a comparatively early date I should favour the Warren line, because there is a shorter length of construction, and it would be a cheap and easy line to make.
734. Do you regard the Coonamble district as an exceptionally fine district, and one well adapted for settlement? Yes; I should call it a very rich district from my experience of other parts of the Colony.

George Charles Arthur Cobb, Coonamble, sworn, and examined:—

- G. C. A. Cobb. 735. *Chairman.*] You are a resident of the town of Coonamble? Yes, I have been here for thirty years.
- 24 Mar., 1898. 736. Does Coonamble require railway communication? I think Coonamble has now come to a stage when it does require railway communication. I think every town of the size and importance of Coonamble should have railway communication, for several reasons. As a rule in the winter time when there is heavy traffic on the roads, they are very wet and it is difficult to get along. In the next place the cost of bringing produce to the district in a dry season is very considerable, and would be very much lessened by railway communication. I think that is one of the most important points, because this is a large pastoral district, and there is a large amount of stock requiring sustenance in dry weather. This cannot be procured in the district, and a railway is necessary to bring it here. In my opinion the railway should be the nearest that could be constructed to Sydney.
737. You regard the trend of trade to be from and towards the metropolis? Certainly.
738. Would you regard the western trade of as much importance? Certainly, the western trade is to be considered as well.
739. And in view of the western trade it appears probable that the Warren and Coonamble line would be the most satisfactory? In one way it would and in another it would not. When I say I consider that we should be connected with the nearest point to Sydney, and should go the straightest way, the object is to provide against any competition which might arise between road carriage and rail carriage. If a railway is constructed the carriage on which will cost 10s. or £1 per ton more than the road carriage, it is natural to assume that the latter would have the preference, because people as a rule do not throw their pounds away in that way.
740. Is the western trade from Coonamble-Warren out towards Bourke of any value? Out towards Bourke it is of very little value indeed. Nothing goes from Coonamble to Bourke. I am doubtful, although hopeful, with regard to the agricultural possibilities of the Coonamble district. If it be proved that cereals and hay will do satisfactorily in the district, there will be some benefit in our having the most direct route to the west; but weighing the matter carefully, in my opinion that is of less importance than a direct route to the Sydney market. I desire to say also that I think it improbable that it will pay to take wheat to Dubbo or to Sydney. I do not think we could compete with nearer districts.
741. It appears that a through rate on the longest route to Sydney, that *via* Warren, would be about 4d. per bushel on your wheat—would that be prohibitive? No, it would not. The only thing is that the cost of production would be so much higher here, that it would be a question whether at that rate of carriage we could compete with districts having larger areas and better conveniences for cultivation, including cheaper labour.
742. You think we should take the Mudgee line, with its 337 miles to Sydney, as against 470 miles by the proposed route? Certainly, if it be possible; but if not, then I would take the next nearest route. I am not confined to any one route. My argument is that the shorter the railway line the less chance of competition by road carriage. In my opinion, the most direct route to market—in other words, to the metropolis—is the right line to be constructed for this district. I understand, however, that the question of construction has to be taken into consideration. Still, having weighed the case fairly, I should take first of all the line from Mudgee to Coonamble. If I could not get that, then the line from Dubbo to Coonamble; and, if I could not get that, I would take what I could get.
743. Would you like to make a statement with regard to the possibilities of the district? As a pastoral district it cannot be beaten in the colonies. There is no doubt it contains also any quantity of really good agricultural land. The only deficiency is in the season of the rainfall. If you get a fair average rainfall
you

you will get good crops. The difficulty is, that we generally get the rain here when it is not required for agricultural purposes. Our principal rains should come in February. We have been getting them a little earlier lately, and later in winter. With regard to the carrying capacity of the land in the district, I am aware that a run close to Coonamble has been carrying a sheep to the acre, and perhaps the returns show this; but, in my opinion, to be safe the limit of one sheep to 2 acres should not be exceeded. I desire to state that the cost of getting goods from Dubbo to Coonamble by road at present rates is less than the cost is likely to be of bringing them to Coonamble *via* Nevertire on the railway. A good portion of the traffic now going to Nevertire would compete with the Northern line *via* Narrabri.

744. How far is it from Coonamble to Narrabri? About 130 miles. The Northern rates are much lower than the Western rates. Wool consigned through Narrabri to Newcastle is sent at a much lower rate, and a bonus of 7s. a ton is given by the Department.

745. Do you ever send wool away? Yes, I send wool to Nevertire. I send 8,000 bales every year.

746. You do not send it *via* Dubbo? No.

747. Still, Dubbo could be reached for a few shillings less than Nevertire? Yes; the reason why it goes to Nevertire is not a trade reason.

G. C. A. Cobb.
24 Mar., 1898.

Mark Herrmann, storekeeper, Coonamble, sworn, and examined:—

748. *Mr. Hassall.*] How long have you resided here? Twenty-eight years in Coonamble, and about thirty-five years in the district.

749. You have heard of the proposal to connect Coonamble with the railway system of the Colony? Yes.

750. Have you reasons to offer why such a thing should be done, or why it should not be done? My reason for opposing the Warren line is that the distance to Sydney is too far. If a line came here from Dubbo we should save 40 or 41 miles trainage, and if it came from Mudgee we should save 80 miles trainage.

751. You do not object to a railway coming to Coonamble? No; not in the least. But we, as storekeepers, will make very little use of it according to the present rates. Our goods will still come from Dubbo.

752. Your objection is to the proposed route by Warren? Yes; there would be too much trainage to pay.

753. Taking the nearest point, and the most direct route to Sydney, which would be the Mudgee route, and considering that the cost of constructing that line would amount to nearly half a million of money, and considering also that the ruling grade on that line is 1 in 60, does it not stand to reason that the cost of carriage over that length of railway must be greater than the cost over a length of railway that could be constructed for about £2,200 per mile, and over which you could draw nearly double the load? Yes.

754. For the reasons just stated, is it not likely that the rates over the longer route would compare favourably with those over the more direct route? It would all depend upon the rates the Commissioners would fix. If they adhere to the present rates, then carriers must compete with them, and our goods will still come *via* Dubbo. It all depends upon the Railway Commissioners.

755. You give the Commissioners credit for being smart business men? Yes.

756. If they found that road carriage was competing against them successfully, it is not likely that they would allow the railway to remain idle when, by granting certain concessions, they could secure all the traffic? No. I sent carriers from here to Sydney three years ago. The same carrier went twice all the way to Sydney and back again.

757. Perhaps he owed a store account? No; but I gained over £100 by sending him.

758. *Chairman.*] Did he gain anything? Yes; he did very well out of it. He did two trips between the months of October and January.

759. *Mr. Hassall.*] Taking wool down, and returning with back loading? Yes; and he brought his horses back in first-class condition.

760. Though in the case of non-perishable goods you could do that, yet in the case of other goods requiring rapid transit, you could not afford to send them by road? No.

761. What is your road carriage from Dubbo? £2 10s. a ton, and in the wool season we get it done for £2.

762. I presume you could not get it done at £2 except for the wool and the return loading? Last year carriers went in from here and brought loading back several times for £2. They went in empty.

763. Your opinion of the district, I presume, is a favourable one? Yes.

764. Otherwise, I suppose, you would not have stayed here so long? No.

765. You are perfectly satisfied it is a sound district and admirably suited for closer settlement? Yes.

766. And it is a district which in your opinion is bound to progress very much? Yes; it all depends on the land laws I suppose.

767. Is your volume of business pretty considerable? My average trainage since the railway opened to Dubbo has been about £600 or £700 per annum.

768. Your business transactions, I suppose, extend over a radius of 30 or 40 miles from Coonamble? Yes.

769. This is evidently the distributing centre of a very large district? Yes.

770. Do you think it would be a payable speculation to construct a railway here, judging from the knowledge you have of the district, and the settlement that has taken place? It all depends upon the rates which the Commissioners may impose. If they stick to the present rates the carriers will compete against them.

771. If they would land the stuff at Coonamble for a little more than they charge to Dubbo it would be all right? Yes. The present rate of carriage for third-class goods is £8 5s. 5d. *via* Mudgee, and £8 19s. 5d. *via* Dubbo. The rates for second-class goods is £6 8s. 11d. to Dubbo, and first-class goods £5 3s. 8d. Then the B rates are £2 9s. 3d., and A rates £1 8s. 6d., and then there is the miscellaneous class of goods the rate for which is the lowest, *viz.*, £1 4s. 2d. The rate for third-class goods *via* Warren is £9 15s. 3d.

772. Have you heard the evidence of any of the previous witnesses? I heard that of Mr. Cobb, and Mr. Polin.

773. And you can practically endorse their statements with regard to the capabilities of the districts and so on? Yes. I have heard people give evidence here that the country will carry a sheep to the acre. The same people, when they go to the Land Court for their assessment, say it will take 10 acres to the sheep.

M. Herrmann.
24 Mar., 1898.

- M. Herrmann. 774. What do you think it will carry? On an average about a sheep to 3 acres. We have to reckon the droughts, because we suffer very often from want of rain. If you over-stock, of course, the sheep must die but if you do not stock your land very heavily—say, on an average a sheep to 3 acres—then you can stand it. The best agricultural land in the district is between here and Mudgee, this side of the Warrumbungle Mountains.
775. There is some good agricultural land in the vicinity of Coonamble along the river, is there not? Yes; along the river. Of course, when you go back further to the black soil, though it is good grass country, it is not good for agriculture.
776. Why did you not keep the carriers going? I would have kept them going, but they were too lazy to go. I would keep them going all the year if they would only go. It was a good season at the time.

James Denny, farmer, Coonamble, sworn, and examined:—

- J. Denny. 777. *Mr. Roberts.*] What are you? I am a farmer, residing within 3 miles of Coonamble in a westerly direction. I am a tenant of Mr. Herrmann.
- 24 Mar., 1898. 778. How much land do you hold? One square mile.
779. What rent do you pay? For the square mile as it stands I pay a rental of £78 per annum, or about 2s. 6d. an acre.
780. To what use do you put the land? Grazing and agriculture at present.
781. How many sheep do you run? I do not run any sheep; I graze horses and cattle, which I take on agistment.
782. What area of land have you under agriculture? Fifty acres.
783. What do you grow? Wheat, barley and oats.
784. Have you been successful? This last year I have been. With regard to hay and oats, for hay purposes these crops have been successful this year. In the previous year, owing to the excessive drought they were not successful. For wheat-growing the land could not be excelled in the colonies.
785. Have you had much experience of farming? Yes; in the valley of the Murray I had an experience of twenty years—farming largely too.
786. Was that anywhere near Berrigan? Nearer to Deniliquin and Echuca.
787. That country down in Riverina enjoys quite a reputation for the excellence of the wheat produced? It does.
788. How does this country compare with that? I have not very long been a resident here, but from what I can learn as to the amount of rainfall and the nature of the soil, this is superior country for wheat-growing and general agricultural purposes to the country, generally speaking, in the valley of the Murray. Undoubtedly the character of the soil is superior; it will make a more extensive growth when the season is suitable.
789. How many years have you been growing wheat here? I have only been in the district between three and four years. I have been growing wheat for one year.
790. Out of those three or four years have you had any failures? One last year. I have only had three years proper experience.
791. Do you attribute the failure of the crop entirely to the insufficiency of the rainfall? Entirely so.
792. Did you put the crop in at the usual time? My crop went in rather late, but other crops that were put in much earlier were very little better, so that I consider the failure of that year was entirely due to the want of rain.
793. Does the rain in this district fall in months most favourable to the farmer? My experience here has not been sufficiently long to say. This last season the rain fell at a very favourable time, and the result was a very favourable year for hay-growing. Wheat-growing is not carried on to any extent, simply because there is no outlet for wheat, and it can only be grown for hay to supply the local demand. This year there was but a moderate amount of rainfall, and I saw the largest and the heaviest crops of hay that I have seen in my experience, and I have had experience in South Australia and the southern portion of the Colony for twenty years, with the same amount of rainfall.
794. How many bushels do you get to the acre? Within 20 miles of here some of the crops are averaging up to 30 bushels to the acre. I could show you as fine a sample of wheat as you ever saw, grown last year within 20 miles of this place.
795. How many bushels to the acre do you get? Last year was a failure. This year I allowed a little to go for wheat, and I have not threshed it, but I reckon, from the look of the crop, that it will go from 20 to 30 bushels to the acre.
796. Do you find a good market for all the produce off the 50 acres that you cultivate? We do not; we can grow in excess of the demand. The town can be supplied by a few farmers growing hay, and hay is the principal product, for the simple reason that there is no outlet.
797. How many inches of rain would you consider to be absolutely necessary for successful wheat-growing? A good deal depends upon how the rain falls during the year—that is, whether it is necessary for grain-growing. A rainfall of less than 20 inches will not produce successful crops either in South Australia or in this Colony.
798. Are you able to get along? Well, fairly only, on account of the seasons we have passed through lately. There has been rather a difficulty all over the colonies in that respect, but otherwise I have no reason to complain.
799. You get a fairly good living for yourself and family? Yes, so far.
800. Have you felt the want of a railway? Very much. I have at present any amount of hay to dispose of, and if I could have turned that hay into wheat I could have sent it along the railway to the centres of population. At present, however, on account of the over-supply of the product, I cannot dispose of it. If I could have turned it into wheat I could have gone on extending my operations until I made the farm a good agricultural farm, as I intend to do.
801. Have you formed any opinion, from your knowledge of the district and the class of country, as to which would be the best route for a railway? I think most of the people in the district interested have formed some opinion of their own. Some, of course, may be interested by having land on the various routes. I have none on any of the routes, and I look upon the question entirely from an agricultural point of view. It is important to take into consideration the fact that a very small difference in tariff makes

- makes a great difference in grain carrying. If this district is to compete with other places a very cheap rate will be necessary to enable you to reach the Sydney market. J. Denny.
802. You regard Sydney as your market? Certainly; it must ultimately become the market for every part of the Colony. 24 Mar., 1898.
803. Are the Committee to understand that you favour the route *via* Mudgee as being the nearest? I favour it, undoubtedly, for more reasons than because it is the nearest.
804. Do you know the country? I know some of it; I have been out on it a good deal. Between here and Coonabarabran, round the Warrumbungle Ranges, which is the route the railway to Mudgee would take, the land is eminently suited for agricultural purposes, especially wheat growing. I refer to the western side of the Warrumbungles.
805. You think a large farming population would become settled all the way from Coonamble to Mudgee? I should think so, as there are hundreds of farmers there already struggling under great difficulties to produce wheat, and there are thousands of bushels of wheat produced there at the present time. I heard a gentleman say that this year 5,000 bags of wheat were grown between here and Toorawheena.
806. How do you view the route from Warren to Coonamble? Not favourably.
807. On account of the extra haulage? Yes; and the number of people likely to be benefited will be much greater on the other route.
808. If the shorter line from Warren to Coonamble were constructed, would it have beneficial results with regard to the settlement of an agricultural population? It would, undoubtedly, to a considerable extent. No matter what line was made that would be the result.
809. The land is all very good is it not? The land is all good in this district. The land is very good on the Warren line for grazing sheep; but it does not always follow that the best grazing land is the best agricultural land.
810. What is your opinion of it for agriculture? I think the land between here and Warren is all very fair agricultural land, but I do not think it is equal to the land in the direction we have been speaking of.
811. Are you able to form an opinion as to what would be the yield per acre from the land between Warren and Coonamble best adapted for agriculture? When you take averages for agricultural districts, if you look at some of the best districts in the Colony, you will find that the average yield is not so large as is supposed. A district which for a particular year would average 20 bushels to the acre, would not, perhaps, give a general average of more than 14 bushels, and I reckon that this district would be exactly like the other districts. In a good year we might produce 30 or 40 bushels on the average, but taking an average extending over a number of years, it would not be, perhaps, more than 14 bushels, as in other western districts.
812. From what you know of the land and its capabilities, you think there would be a large population settled here, and that agriculture could be combined with grazing? Undoubtedly. I think there will be a large population, no matter in what way the land is dealt with.
813. Did I understand that you were storekeeping also? Yes; I have a store in town, and my sons and myself work the farm.
814. What sort of goods do you generally buy in Sydney? We send for corn and oats occasionally, and we send for a variety of other things.
815. Which way do you get them? From Dubbo.
816. Did you hear the evidence of the previous witnesses who are engaged in storekeeping? Yes.
817. Do you endorse the evidence given by them? Yes; I think they were correct. I was asked as to what line I would favour most. I would favour the Mudgee line, provided we could get it constructed, but if not, I would favour the Dubbo line. Along that line there are hundreds of farmers already engaged in agricultural pursuits. The valley of the Castlereagh is much better adapted for wheat-growing than anywhere else. I have been along the surveyed line from Dubbo; half of the country is suitable for agriculture, the other half is very medium grazing land.
818. Then it is not good country on the whole? It is not what you would call first-class country. I produce samples of barley and wheat grown on my land.

James Colley, manager, Commercial Banking Company of Sydney, Ltd., Coonamble, sworn, and examined:—

819. *Chairman.*] You are manager of the Commercial Bank at Coonamble? Yes. I desire to inform the Committee that I have been three and a half years in the district, and have had an ample opportunity of forming an opinion as to its suitability for settlement, and its agricultural and pastoral potentialities. In my opinion, it is a first-class pastoral district. There should also be a considerable amount of land placed under cultivation for the growth of cereals. The people are in a solvent state usually. The town I regard as sound financially. The district compares favourably with any other district I know of in the Colony. J. Colley. 24 Mar., 1898.

Sidney Richard Skuthorpe, solicitor, Coonamble, sworn, and examined:—

820. *Mr. Hassall.*] What are you? A solicitor, residing at Coonamble. I have been in the district since its infancy. S. R. Skuthorpe. 24 Mar., 1898.
821. I suppose you have seen the district progress almost from its infantile state to its present condition? Yes.
822. You have heard of the project to construct a line from Warren to Coonamble;—are you in favour of that proposal? I should like to see a railway extended here, but, like a number of other gentlemen who have just been examined, I belong to the local railway league, and we are pledged not to advocate any particular line; but we want railway communication.
823. Do you know the country pretty well on the various routes proposed? Yes; I have been along each of them.
824. On which of the routes is the best country situated? There is less bad country on the Warren line than on either of the others, and less on the Dubbo line than on the Mudgee line.
825. It is admitted that the connection *via* Mudgee would afford the shortest route to Sydney? Yes; and from my knowledge of the country I think that is the only recommendation in its favour.
826. Its disadvantages would be the heavier grades on the line and the much greater cost of construction? Yes. 827,

S. R.
Skutkorpe.
24 Mar., 1898.

827. Have you any samples of what has been grown in the district? Maize, a sample of which I produce, has been grown within 30 miles of Coonamble, at Gulargambone, during the present year.

828. Was there a pretty good crop? There was only a small area under crop. There was a fair crop, considering the season. There was an exceptionally unfavourable season for maize-growing, and the yield was at the rate of about 30 bushels to the acre. At Gulargambone, where that maize was grown, I have known over 40 bushels of wheat to be grown to the acre. In 1881 there were 6 or 7 acres under wheat, and a patch of it was kept for grain, and it went at the rate of over 40 bushels to the acre. The wheat was a better sample than that submitted to the Committee by Mr. Denny.

829. That proves that wheat can be grown successfully and profitably? Yes.

830. Even if there were no cultivation carried on in this district at all, do you think the importance of the district, taking into consideration the settlement which has taken place here during the last twenty years, and the rapid advancement of the district, should warrant railway communication? Yes; I think there should be a railway, independently of the agricultural prospects of the district.

831. Do you think the traffic on the railway from pastoral occupation would be sufficient to pay interest on the cost of construction? I think the railway would induce closer settlement.

832. And would lead to still larger settlement in the district, with the result that any available land would be readily taken up? Yes.

833. I suppose you would have some experience of the demand for land in this district? I know that where land which has been thrown open lately—and in the majority of cases it has been balloted for—there has been a large number of applications for each piece, with the exception of two or three areas of country which is practically worthless, but there is not much land of this latter description in the district. The portions referred to are away to the eastward of the Castlereagh, out from Gilgandra. There is a patch of bad country there—sandy scrub country.

834. But where good land is made available there is a decided rush for it? Yes.

835. Having heard the evidence given by previous witnesses during this inquiry, can you corroborate their statements? Yes; I generally endorse what has been said.

836. Is there anything you might wish to add? There is one thing with regard to getting stock away from here. Nevertire and Dubbo are the points generally sought to be reached. The stock routes to these places are unprovided with water, and after a few weeks' dry weather there is practically no water for travelling stock. Last Christmas there was no water available between here and Gulargambone—a distance of 30 miles; and water was only obtainable at Gulargambone on sufferance. The water there was surrounded by private lands, and stock were only allowed to get it on sufferance. After leaving there they had to go to Gilgandra—another 30 miles, and there is only a small supply there. On the other route from here to Warren or Nevertire, since the bore has been running, they would get a little water at Bourbah—that is very nearly 30 miles, and there is a tank at Bullagreen for stock. I believe stock has to be watered there from troughs, and paddock stock are shy of drinking at troughs.

837. The main stock route to Dubbo, although it traverses the bank of the Castlereagh River, is practically waterless? Yes.

838. Because, although it is called a river by courtesy, in a dry season it is a bed of sand? That is so.

839. There is plenty of water underneath? Yes; water can be obtained by sinking; still, paddock stock are shy of drinking from troughs.

840. Your inference, then, is this: that the construction of a railway to this district would materially assist those who have to send fat stock away to market? Yes.

841. And you think the railway would be largely availed of as a means of transit for fat stock? I think so.

842. In view of the difficulty of obtaining a water supply between here and the trucking points at present in existence at Dubbo and Warren? Yes.

843. I presume you are also of opinion that a railway would be of great advantage to small holders in enabling them to send away small consignments of stock, which they are unable to do at the present time, in consequence of the expense of droving to trucking points? Yes. I know something about that because my brother earns his living by droving. I know something, therefore, about the stock that would go away. They do not go away now unless there are pretty large mobs. It often happens that a small lot will be fit to be sent away, but they get poor while they are being kept waiting for the others to fatten.

844. So that very often the market is lost for a small number of stock, which would not be the case if the railway were running into the town? That is so. There is one thing with regard to the construction of the line from Warren. I think we are more favourably situated so far as rainfall is concerned than the district away to the west—Cobar, and out there. I am of opinion that in the future that district will support a pretty large mining population. It must be rich in minerals, and if the railway were constructed from Warren, trade would probably spring up with that district, which we could supply with produce and stock.

845. In that case the line from here to Warren would be the better line to construct? Yes; I think there is that in its favour. Against that, the line to Dubbo would benefit a larger number of present settlers. I do not, however, wish to be understood as advocating any particular line. I think the extension of a railway to the district, no matter where it came from, would be a general benefit.

846. No matter what route were adopted, you think the line would be used by practically everyone in the district, and would be largely availed of for sending away produce? Yes; and there would also be a passenger traffic.

847. There is at present a considerable passenger traffic between Coonamble and both Dubbo and Warren? Since the railway has been extended to Warren the passenger traffic is principally with that place.

848. The passenger traffic on the railway would, you think, be a considerable item in the revenue? Yes.

849. And with greater facilities I suppose more people would travel than now travel by coach? Yes; there would be a considerable increase.

Donald Fletcher, President, Railway League, Coonamble, sworn, and further examined:—

D. Fletcher.
24 Mar., 1898.

850. *Mr. Roberts.*] Have you any information you wish to add to the evidence you have already given? I am not quite sure that Mr. Medley gave correctly the figures relating to the stock. The acreage of the district, including Crown lands, is 2,770,644, and the stock depastured comprise 6,990 horses, 18,311 cattle, and 1,732,562 sheep. With regard to the carrying capacity of the district, taking those figures, and reckoning eight sheep for one head of cattle and eight sheep for one horse, which is an absurdly low estimate,

estimate, the result is 1,900,000 sheep to 2,700,000 acres. That is equivalent to one sheep to about $1\frac{1}{2}$ acre. Those are the official figures showing what the land actually carried last year, which was not a good year. Mr. Dillon's figures as to the revenue derived from the Lands Office of Coonamble sufficiently prove that we are entitled to a railway, and the figures of Mr. Newton, as to the cost of road-making, show that a railway could be built almost as cheaply as a road. Then again there is another point in what Mr. Skuthorpe said—that in a dry time there are practically only two drinks of water between here and Dubbo. I should like to endorse what Mr. Skuthorpe said on that point. Three months ago there were two 30-mile stages from here to Gulargambone and from there to Gilgandra, and then one stage of 40 miles to Dubbo.

D. Fletcher.
24 Mar., 1898.

Thomas Clarke, secretary, Railway League, Walgett, sworn, and examined:—

851. *Chairman.*] You are an accredited representative from Walgett? Yes; I am secretary to the Walgett Railway League, and my business is that of an auctioneer. T. Clarke.
852. Where do the people of Walgett desire to be connected with the railway system of the Colony? At Narrabri. At 24 Mar., 1898.
853. If you were given a preference, which line would you take? From Narrabri to Pilliga, and thence to Walgett, through Come-by-Chance and Goangra.
854. What are the reasons why you prefer that line to one *via* Coonamble? On account of the larger amount of traffic that would accrue, and also because a line from Walgett to Coonamble would be a continual tax upon the persons who would use it.
855. Have you the lengths? The line *via* Coonamble is 24 miles further round than from Walgett, *via* Narrabri, to Sydney. The people of Walgett and the district look upon Narrabri as the natural outlet for their produce, and by that route it would be 124 miles nearer the seaboard.
856. It would be 124 miles nearer to Newcastle, *via* Narrabri, than it would be to Sydney, *via* Warren? Yes.
857. And it would be 78 miles nearer, if the line went *via* Dubbo; and 44 miles nearer, if it went *via* Mudgee? Yes.
858. The Committee would like to hear your views with regard to a line located on the northern side of the Namoi between Narrabri and Walgett? My opinion is that although the country there is as good as that on the southern side of the Namoi, it is more subject to floods. There are really three creeks to cross; you cross Pian Creek twice, and another creek not far from Wee Waa. There are about 30 miles of country almost always subject to flood. On the southern side of the Namoi there is not a mile that is always subject to flood. There was some length of country that was under water during the 1890 flood, but that was the only occasion within the recollection of one of the oldest residents of the district.
859. Your first objection then is that the cost of construction would probably be greater on the northern than on the southern side? Yes.
860. What is your next objection? Another objection is that the traffic would not be so great on the northern as on the southern side.
861. Suppose bridges were to cross at the various centres such as Pilliga and Come-by-Chance? It would merely mean a question between Coonamble and the stations on the other side of the river.
862. If the railway is on the southern side, the wool from the stations on the north, and the productions from the north will have to come across the Namoi? Yes.
863. If it is on the northern side, the productions from the south will have to cross the Namoi? Yes. At the same time there are one or two very large stations who would very likely send to Coonamble in preference to sending across the Namoi.
864. Therefore you think there would be less freight for a line located on the north of the Namoi than for one located on the south of that river? I think so.
865. Now take the case of Walgett itself;—would it affect Walgett? I do not think it would affect the town itself in any degree, unless there might be such a thing as local jealousy, such as one person saying, "The railway being on the other side of the river will make your country a bit better than mine."
866. But if it were located on the northern side of the Namoi, as close to Walgett as possible? I do not think it would then make the slightest difference to the town of Walgett, nor to the people on the far side of Walgett from here.
867. You have another outlet—by the Barwon River down to Bourke;—will you describe that? I thought we had already knocked the bottom out of that. The Barwon River I believe has been navigable seven times in fourteen years; therefore you could not call that a factor in the transport of any kind of produce. It has been said that the people of the district of Walgett would prefer to send their goods down the Barwon River to Bourke in preference to paying the railway carriage from Walgett to Sydney; that is to say, they would prefer to send them 500 miles at the very least by river, and thence by rail from Bourke, which would be at the least 40 miles by rail further to Sydney. I have it from Mr. Scott, part owner of Gingie, that under no circumstances would he send another bale of wool down the river Barwon. This year the whole of his clip went *via* Narrabri, and whether the railway goes to Walgett or not, he will never send another bale down the river. Then again, Mr. Wiseman, of Mourabie, states that Rich's man was at him several times this year to get his wool, and the carriage is not only so uncertain, but it is actually dearer. Mr. Wiseman can bring his wool 30 miles into Walgett, and send it thence to Narrabri at a cheaper cost than he can send it down the river, notwithstanding the cheap carriage to Bourke which they speak of. These are two gentlemen who have told me themselves, and I can assure you that there are at least a dozen others who are of the same opinion. Then again, as a means of transit for stock the river is absolutely worthless; you can never get stock away by the river. I have been in Walgett myself for five years, and during that time the river has been navigable for two seasons.
868. The Walgett stuff now goes to Narrabri? Yes; almost all of it.
869. What is the rate of carriage? £2 a ton. The highest I have known it during the last five years has been £2 10s. I reckon £2 10s. a very fair average.
870. I believe you have an estimate of the cost of construction, working expenses, and returns on a line of railway on the south side of the Namoi, from Narrabri to Walgett;—can you give us particulars? The total cost per annum, including working expenses and interest, is £18,172. The total revenue, including all items that in my opinion would contribute to the railway revenue, is £19,543; this is calculated on through rates. The profit, therefore, to the railway system of the Colony will be £1,371 per annum. The area I now intend to describe is comprised in the land district of Walgett. The area of freehold land

T. Clarke. is 392,612 acres, and the area of rented land is 65,731 acres. This last is included in the first area. The area of the Crown lands is 4,315,981 acres, giving a total area of 4,774,324 acres held by 340 persons. These figures are taken from official returns. The number of stock in the Walgett district according to the returns of 1896 was—sheep, 1,978,088; cattle, 13,244; horses, 8,418; and the acreage was 5,024,047. Between Narrabri and Pilliga there is a large tract of excellent ironbark timber which would supply the whole of the sleepers for that line; it is about 20 miles wide. With regard to the Crown lands open for settlement, in the Walgett district, there are 171,607 acres available for application under the Conditional Purchase clauses, 8,167 acres for homestead blocks, and 2,638 acres for settlement lease farms, making a total of 182,412 acres; and in Walgett north there are 33,740 acres available for homestead lease. During the next six months there will be available 59,000 acres on Bugilbone, 22,000 acres on Bogewong, and 31,000 on Euroka, making in all 112,000 acres.

Kenneth Murchison, land-owner, Coonabarabran, sworn, and examined:—

- K. Murchison. 871. *Chairman.*] Where do you live? At Coonabarabran. I desire to place before the Committee certain information with regard to the Coonabarabran district for the year ending 31 March, 1897. 24 Mar., 1898. The number of holdings in the district from 1 acre upwards is 366. The area alienated is 563,999 acres, and the Crown lands occupied, 1,364,260 acres. The total area cultivated is 4,302 acres. The area under wheat is 2,029 acres, and the yield last year was 27,268 bushels. The area under maize was 730 acres, and the yield 8,841 bushels, and the area under other grains was 24 acres, and the yield 983 bushels. There was under lucerne 263 acres, potatoes 63 acres, grapes 5 acres, other fruits 53 acres, all other crops 52 acres. The figures relating to stock show the following: horses, 4,986; milch cows, 1,683; ordinary cows including calves, 13,200; sheep including lambs, 891,265; swine, 658. These apply to the police district of Coonabarabran. The agricultural statistics showing the increase from 1894 to 1897 give these results—in 1894, the area of alienated or freehold land was 57,000 acres, and in 1897 the area was 63,000 acres. In 1894 the area of the rented land was 4,658 acres, and in 1897 it had fallen to 2,000 acres. In 1894 the Crown lands embraced 347,000 acres, and in 1897, 292,000 acres. The area under cultivation in 1894 was 2,214 acres, and in 1897, 3,102 acres. The area under wheat for grain in 1894 was 1,154 acres, and in 1897, 1,743 acres. The total yield of wheat in 1894 was 16,872 bushels, and in 1897, 27,512 bushels. The years between may be regarded as proportionately dividing the amount. Although the area under cultivation does not seem very large it is divided among a good number of small holders. The area under wheat does not seem very large, but we occupy an isolated position, being situated so far from the railway; we are placed in a kind of central position between the Western line and the Narrabri line. There are two mills at Coonabarabran which are not kept constantly going; they could grind more wheat than we can grow. The proprietors had to cease buying this year, with the result that the settlers are thrown on their own resources. They have had to send either to Dubbo or to Gunnedah because the local production has overgrown the demand. The cost of road carriage of wheat to Gunnedah is £2 10s. a ton, and to Mudgee £3 10s. a ton. Therefore, the freight per bushel is 1s. 3d. for road carriage to get to the North-western line, and 1s. 9d. to get to Mudgee, while to get to Quirindi the cost is 1s.
872. Does 1s. a bushel represent your cheapest outlet? Yes.
873. What is the rainfall at Coonabarabran? About 30 inches.
874. What would be the return of the wheat crop under ordinary circumstances? The returns go as high as 40 bushels; I suppose a fair average return would be about 14 bushels.
875. From your experience of twenty years, do you believe that the district of Coonabarabran is suitable for the growth of cereals? It is suitable, especially on account of the climate.
876. And the people are prepared to go in for the growth of cereals if they can get means of communication? To any extent. They are now ready. We had a fairly good season last year, and we got good crops. We look upon the district as one in which the crops of wheat will never fail. Sometimes when drought occurs the returns are not so good, but on account of the character of the climate the district is very good throughout, and we look upon wheat as a certain crop. This year, however, the people do not know what to do, simply because they cannot get their wheat away, having more than is required for local consumption. Fruit is wasted in the district for want of proper means of communication. The climate renders the district especially suitable for fruit.
877. What is your idea of an outlet? The idea that brought us here, as representing the people of Coonabarabran and the farmers of the surrounding districts, is that our best way to get to the coast is to go to Newcastle, and that our outside market, other than the local market, is Coonamble and Walgett, and the country in that direction, because we grow wheat and they do not.
878. Take your eastern outlet first—your outlet to the seaboard? The line we propose would give us the choice of Newcastle or Sydney.
879. With regard to the outlet from Coonabarabran, easterly or southerly, will you give your views and describe the route? The easterly route is the one we ask for.
880. *Mr. Hassall.*] To run on to Werris Creek? Yes; with perhaps a line coming from the other end to deviate from the proposed Werris Creek to Dubbo line somewhere about Bomera, and to come somewhere near Coonabarabran. It would come north-westerly from Bomera, and would necessarily come near Coonabarabran in order to get through the gap in the Warrumbungle Mountains, and it would then come down to Coonamble.
881. *Chairman.*] What kind of country is there between Coonamble and Bomera, and between Bomera and Werris Creek? From Coonabarabran to Bomera, where we think the proposed line should run, and on the south of it, the larger part is agricultural land.
882. With brigalow scrub to the north? No, it is not brigalow scrub; it is poor country to the north—it is ironbark? The brigalow is nearer to Narrabri.
883. And what is the country like from Bomera to Werris Creek? It is mostly the Liverpool Plains country. I desire to emphasise the fact that although the country north from Coonabarabran is inferior, still there is very valuable timber there, principally ironbark, which is even now coming into use at Coonamble, 70 miles distant.
884. Do you know the country from Coonabarabran, going down the Castlereagh and on to Mudgee? Yes.
885. What is the country like due south from Coonabarabran, down the Castlereagh? It is good country. There are patches of pine and poor country, but on the whole it is good country down to Mundooran on the east of the Warrumbungle Ranges. 885.

886. And further into Mudgee? There is fairly good country.

887. From Mudgee on to Coonabarabran, therefore, the country would be fairly good to Mundooran, and from Mundooran north the country on the whole would be good and suitable for agriculture? Yes.

K. Murchison.

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888. But with patches of inferior country? Yes.

889. Would the line from Mundooran to Coonabarabran be a heavy one to construct? It would be a heavier line than the one we propose.

890. Much heavier? Perhaps not much heavier. But it is surveyed, and there is a report upon it to Mundooran from Mudgee. So that from Mundooran up to Coonabarabran it would not be heavy; it would be a heavier line than the one we propose.

891. There is another possible extension from Coonabarabran joining on to the line at Muswellbrook or Singleton; do you regard that as so costly as to be not worth considering? Yes; Mr. Jones has reported that it would be likely to cost £650,000, and therefore we leave it out of consideration.

892. Why does a man at Coonabarabran desire to get to Coonamble, and further on to Walgett? Because those districts would afford an outlet for our products—for our wheat and flour, and all other things we can produce, and for the production of which we have special advantages. These places are our markets now. When coming here to-day we passed five or six loads of flour on Coonabarabran teams, some going to Coonamble, and some going to Walgett. The construction of a line from Warren to Coonamble, by bringing the Coonamble market within reach of the flour produced on the main Western line, would take away from Coonabarabran what it regards at present as a market for its surplus flour. I want to mention the distances to show the length of the line from Coonamble to Newcastle, the natural port of Coonamble and Coonabarabran. From Newcastle to Werris Creek the distance is 154 miles; from Werris Creek to Bomera it is 45 miles, and from Bomera to Coonabarabran 41 miles, making a total of 240 miles from Newcastle to Coonabarabran, and from Coonabarabran to Coonamble the distance is 69 miles. Therefore it is 309 miles from Newcastle to Coonamble, or 409 miles from Sydney to Coonamble, as against 417 miles, *via* Warren, to Sydney. Some of the leading pastoralists between here and Coonabarabran, including the Messrs. Ryder, of Calga station, 25 miles from here, have told me that if the line be constructed from Warren to Coonamble they will not send their wool by it because of the extra haulage; they will send their wool, as they do now, by team to Dubbo, Mudgee, or Quirindi. I would like to point out that fruit, maize, wheat, and other agricultural products give a larger return per acre to the railway than does wool, say 6 lb. of wool to 600 lb. of wheat.

William Nash, grazier, near Coonabarabran, sworn, and examined:—

893. *Chairman.*] Where do you live? Seventeen miles from Coonabarabran.

894. You have heard the evidence given by Mr. Murchison? Yes.

W. Nash.

895. In general principles is it correct? Yes.

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896. The statements made by him should convey to our minds a fairly correct view of the Coonabarabran district and the difficulties you are suffering from in the way of isolation and the different modes of approach to the district? Yes.

897. Is there any other point that you think you might do well to emphasise? The country round Coonabarabran, and from there on to Werris Creek, is more suitable for wheat and fruit-growing than any country on this side, on the plains; and by reason of our climate, the character of the soil, and the number of small holders, the settlers must be compelled to go in for farming. The figures given in the official returns show the great bounds that wheat-growing has taken within the last few years. The farmers around me and right on have just grown themselves out. This year, for the first time, the millers have closed their doors and ceased buying. The consequence is that the people who held back for a higher price have to send their wheat to Quirindi or Dubbo. I know it has gone to both places, that being the cheapest way they can get to a market, though it is at a cost of at least 1s. a bushel. A railway from Warren to Coonamble would shut out the Coonamble and the Walgett districts from Coonabarabran as a market for its produce. Adjoining my place there are twelve selectors. I feel sure that when once a train goes round from Warren to Coonamble, and on to Walgett, these men, being deprived of their market, will be willing to let me have their homes at my own price within seven years. They must perish. They cannot live except by agriculture. I am quite satisfied, from the money the farmers have made within the last three years, and the ploughs and machinery they have purchased, that they have been successful, and will continue to be successful if they can find a market. The other night I was talking to a person, and it was said that it was not advisable that we should encourage the mill, as it was only helping the selectors against us. I pointed out that two years ago I started the halves system. I gave a man 20 acres of land partly cleared. He said one day that he wished he had that 20 acres to grow a crop of grain. I said, "Certainly, you can have it. It wants fencing; I will find you the wire, give you the teams and ploughs and you can cultivate it." He did so, and made £75 out of it. Since then, everybody has been inclined to go in for the halves system, and I am sure that all my neighbours as well as myself would be glad to let every acre of land they can on the halves system. I pointed out to Macmasters Brothers that if they were willing to let their land on the halves system they would find hundreds of young fellows, who, perhaps, might not have the brains to go in for cultivation for themselves, but who, if they had someone to steer them, would do very well. If you start these men with four horses and a three-furrow plough, find them seed and plant to the amount of about £50, and give them 100 acres of ringbarked timber, they will soon burn the timber off, and get under weigh. Let them have the land for ten or fifteen years on the halves system. Assuming a man grows 10 bushels to the acre, and sells it at a profit of 1s. a bushel, that would give him 5s. an acre. You would never graze sheep if you could get 5s. off the land in that way—putting it at a very low estimate. So that I am satisfied that the greater portion of Coonabarabran, and further on towards Quirindi, will be a large wheat-producing district. But this is not possible unless the State furnishes us with cheap carriage. This year we have overdone production. Fruit is now rotting in the gardens. At the Coonabarabran show there was some of the best fruit I ever saw in the Colony, and I came from the Hunter. Coonabarabran is a good district for wine-making.

898. *Mr. Roberts.*] What is the nearest railway station? Gunnedah; but the road is bad. It is about 90 miles to Quirindi, and the carriers prefer going that way. If the railway came through Coonabarabran to Coonamble there would be a great advantage by reason of the wool going to Newcastle instead of to Sydney. We do not allow that connection with Sydney is any advantage to us. Newcastle would be the outlet for our produce.

899.

- W. Nash. 899. *Chairman.*] You think you would export from Newcastle? Certainly.
 24 Mar., 1898. 900. *Mr. Roberts.*] Do you send your wool to Newcastle? No; it goes to Mudgee, as a rule. I desire to emphasise the fact that the extension of agricultural operations is impossible in the district of Coonabarabran with the present cost of road-carriage. There can be no such extension with better means of communication.

SATURDAY, 26 MARCH, 1898.

[The Sectional Committee met at the "Castlereagh Hotel," Gulargambone, at 7:30 p.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. CHARLES JAMES ROBERTS, C.M.G. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Warren to Coonamble.

John Thomas Skuthorpe, Gulargambone, sworn, and examined:—

- J. T. Skuthorpe. 901. *Chairman.*] How long have you been resident in the district? About thirty years.
 26 Mar., 1898. 902. Have you had an opportunity of seeing the surveyed railway-line from Coonamble to Mudgee? Yes. For about the first 50 miles it passes over pretty well the same kind of country as you find east and south from Coonamble, until you reach the foot of the Warrumbungle Mountains, near Toorawheena. Then you pass through rough ironbark country for a distance of 15 or 16 miles. This country I regard as pretty well valueless except for the timber. Then you find yourself on a table-land for about 8 miles, which is good country. Leaving the table-land, the country to Mundooran, a distance of 12 miles, is rough ironbark country, similar to that between Toorawheena and the table-land. Further on, to Cobborah Gap, a distance of about 18 miles, there is rather good country, suitable for agriculture, or almost anything. Further on to Cobborah there is rough, ridgy, country, and in some places small flats, on to the Talbragar River. After that, for 3 or 4 miles, you get good, sound country again, and then you get into broken country with ironbark ridges, with flats here and there. This description of country extends for about 14 miles, until you get to the foot of the Goodaman Range. Then there is rough, ridgy, country for about 8 miles with small flats intervening, and further on to Gulgong the land is of fair quality. Further on to Mudgee there is broken country again with ridges. Some of it is fairly good, and in other places the ridges are rough, and the slate reef comes to the surface in a good many places.

John Kearney, Gulargambone, sworn, and examined:—

- J. Kearney. 903. *Chairman.*] You are a resident of Gulargambone? Yes.
 26 Mar., 1898. 904. How long have you been here? Twenty years.
 905. The Mudgee line as surveyed lies about 12 miles to the east? Yes.
 906. The line to Warren lies about 13 miles to the west? Yes.
 907. The line to Dubbo lies about 2 miles to the west? Yes.
 908. Would you like to make a statement? I consider that a railway from Warren will do us here on the frontage of the Castlereagh and east of the Castlereagh no earthly good whatever. We could not use it. This opinion is also held by my neighbours. The country lying to the south and east from here as far as Mundooran could make no use of the line *via* Warren. We prefer the Dubbo route.
 909. How many small holders are there within 10 miles of where we are now sitting—(say) holders under 3,000 acres? I believe there are one hundred, holding under 3,000 acres within 10 miles of here.
 910. Are there any farmers cultivating in the district? Yes. I can give you one instance of a successful farmer in Mr. S. Organ. Off 200 acres of land, after reserving a sufficient area for his horses and milch cattle, he has been able to send 500 bags of wheat to market. The farmers have not been able to grow wheat, because unless the prices are very good they cannot afford to cart their wheat 75 miles to Dubbo. But up and down the creeks there is a considerable area of land suitable for the growth of cereals, and, in my opinion, a great portion of the plains at the back are also suitable for cultivation. Another resident, Mr. W. Zell, also grew wheat satisfactorily last year. Our isolated position tells against us. In my opinion, wheat would succeed in five years out of seven. I wish to impress upon the Committee the fact that the inhabitants of this place desire the Dubbo line, that being really the only one that could be of any value to them. I desire also to emphasise the great fertility of the flats on the Castlereagh River. I speak from my own personal experience. To give the Committee an idea of how fertile the land is, under favourable circumstances, I may mention that I got 100 bushels of wheat off 2½ acres of land, and also 5 bushels of fowl wheat. Not only will cereals grow here, but also maize, lucerne, and such crops, and fruit will thrive well. I produce samples of fruit grown in the district, including quinces, peaches, and apples. From my personal experience I am able to state positively that oranges, grapes, plums, and, in fact, almost any fruit can be grown in the district.

John Murphy, hotelkeeper, Gulargambone, sworn, and examined:—

- J. Murphy. 911. *Mr. Roberts.*] How long have you been residing here? About seven years in the town.
 26 Mar., 1898. 912. Have you had any experience in farming? Yes; I have done a little farming and grazing.
 913. Are you the holder of any grazing property now? No, not personally.
 914. What farming have you done? Just merely growing hay; there is no market for anything else. I have grown corn and wheat and always used it for hay.
 915. Has the distance from a railway precluded you from going extensively into farming? Yes.
 916. What are your views with regard to railway communication? I think the line from Dubbo to Coonamble is the one that should be constructed. I do not approve of the proposed line from Warren to Coonamble.
 917. How far are you from Bourbah? About 14 miles.
 918. If a line were constructed from Warren to Coonamble passing through Bourbah, would you not regard 14 miles as being sufficiently near to enable you to go to and from the railway with a load in a day?

- day? Yes; but you have to cross the Castlereagh River. There is no bridge, and the river is very bad to cross. J. Murphy.
919. Though that is the state of things at present, is it not fair to assume that if a railway were constructed from Warren to Coonamble, and the traffic warranted such a course, the authorities would give you a bridge to get over the river? I suppose it would come to that in time. 26 Mar., 1898.
920. If the Dubbo to Coonamble line were constructed, you would still require a bridge to get to the railway station? Yes.
921. So that, as far as the approaches to the railway are concerned, the difficulties would be the same in both cases? Yes.
922. Having heard the evidence given by the previous witness, do you endorse what he said in regard to the capabilities of the district? Yes; I am quite certain about the capabilities of the district.
923. How long have you been living in the district? About thirty years in the vicinity of Gulargambone.
924. Out of those thirty years, for what period were you grazing? About fifteen years.
925. Where did you reside on that grazing property? About 8 miles from Gulargambone on the road to Coonamble.
926. What area of land did you occupy? About 1,400 acres altogether.
927. And you devoted your attention to sheep-grazing and also to farming in a small way just for home consumption? That is so.

George Joseph Skinner, butcher, Gulargambone, sworn, and examined:—

928. *Mr. Hassall.*] What are you? At the present time I am a butcher in the town of Gulargambone. G. J. Skinner.
929. How long have you known the district? I remember it for the last twenty-five years. 26 Mar., 1898.
930. At that time there was very little settlement? Not much.
931. There was not a fence for hundreds of miles? No.
932. At that time the settlement was exclusively pastoral, and the country was under lease to the squatters? Yes.
933. When did you see settlement commence in this district? Twenty years ago, I suppose.
934. That was some little time after the 1861 Act of Sir John Robertson came into force? Yes.
935. But the settlement was only scattered at that time? That is all.
936. When did the district become thickly settled—during the last eight or ten years? During the last ten or fifteen years, I suppose.
937. What is the principal occupation of the people residing here—the smaller settlers? Sheep-farming, principally.
938. I suppose none of them are farming on a large scale? No.
939. Practically, their farming operations are confined to a small area of ground, and what they grow on it is principally for local consumption? Just so.
940. Have you command of a market in Coonamble? No; unless in a dry time for a bit of hay.
941. So that there is no outlet for any farm produce, even if you grew it at the present time, in consequence of the distance that you have to carry it to market? Yes.
942. What is about the general carrying capacity of the land;—taking the district around Gulargambone, what sheep will it carry? About one sheep to the acre.
943. Do you think it would carry two sheep to 3 acres, taking one season with another? Yes; it would do that.
944. Do you think that would be a fair average? Yes.
945. As a business man, I suppose you can form an opinion as to the soundness of the district;—are the people in a fairly good position? Yes; they seem to manage to make a living.
946. Where do your supplies come from? Dubbo.
947. That is your nearest point to the railway? Yes.
948. Is Dubbo nearer to you than Warren? Warren, I think, is a little nearer, but the line has only recently come there.
949. Warren would be a little nearer than Dubbo, but you think it just as well to send to Dubbo for what is required, as to go to Warren and have to make a circuit by the railway? Well, the goods would cost you more by the time they went round by Warren.
950. So that, practically, it is cheaper to go to Dubbo than to Warren? Yes.
951. If the line were extended from Warren to Coonamble you would be brought within 12 miles of a railway? From 12 to 14 miles.
952. Suppose the railway were carried that way, would it be of any service to you? It would be better than where it is at present.
953. It would be of some service, but certainly not of as much service as a line from Dubbo to Coonamble would be? Exactly.
954. But in any case, if either line were constructed, you would require a bridge across the Castlereagh to enable you to get backwards and forwards to the railway? Yes.
955. With regard to the Mudgee line, you know the surveyed line through there? I have crossed it.
956. It is about 12 miles to the east, is it not? Yes.
957. Would a line there be of any service to Gulargambone? Well, it would not be necessary to construct a bridge in order to reach it.
958. But I presume it would not be of as much service to the district as the line to Dubbo? No; still there are a great many farmers on that route; it is nearly all farming country that way.
959. If a line were constructed through there it would be a great benefit to those farmers? Yes.
960. And would to some extent be of service to the Gulargambone people? Yes.
961. You have heard the evidence by Mr. Kearney and Mr. Murphy? Yes.
962. Do you agree in the main with what they have said? Yes.
963. As residents of long standing in the district you think they are able to convey the opinion of the people residing in and around Gulargambone? Yes.

William George Tupper, Gulargambone, sworn, and examined:—

- W. G. Tupper.
26 Mar., 1898.
964. *Chairman.*] You have been a resident of the district of Gulargambone for sixteen years? Yes.
965. You have heard the evidence given by the three last witnesses? Yes.
966. In general principles do you agree with it? Yes.
967. Do you think there is anything vitally wrong with it? Nothing at all.
968-9. Would you like to say anything further? No.

Edward Henry Holland, Gulargambone, sworn, and examined:—

- E. H. Holland.
26 Mar., 1898.
970. *Chairman.*] You heard the evidence given by the first three witnesses? Yes.
971. Do you approve of it? Yes.
972. Do you believe that in general principles it is correct? Yes.
973. How long have you been here? About 30 years.

Henry Harvey, sworn, and examined:—

- H. Harvey.
26 Mar., 1898.
974. *Chairman.*] What are you? A road-maintenance man. I travel through the whole of the Coonamble district on the roads.
975. How long have you been in this district? Four years.
976. You heard the evidence given by the first three witnesses? Yes.
977. Do you believe it to be correct? Yes.

MONDAY, 28 MARCH, 1898.

[The Sectional Committee met at the "Gilgandra Hotel," Gilgandra, at 8 p.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. CHARLES JAMES ROBERTS, C.M.G. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Warren to Coonamble.

Alfred Arthur Mudie, auctioneer and commission agent, Gilgandra, sworn, and examined:—

- A. A. Mudie.
28 Mar., 1898.
978. *Chairman.*] How long have you been here? I have been at Gilgandra for about three years.
979. Do you know the district generally? Yes.
980. For how long? Well, I was born in the Coonamble district. I have been here for thirty-one years.
981. You are also secretary to the Gilgandra Railway League? Yes.
982. You desire to hand in a petition? Yes; the petition states:—

We, the undersigned residents of the Curban, Gulargambone and Coonamble districts respectfully urge that the connection with Dubbo and Coonamble by railway be made *via* Balladoran, Gilgandra, Curban, and Gulargambone, where there is a very large extent of land highly suitable for agricultural purposes. A line has been surveyed between Dubbo and Coonamble which would suit all requirements.

To that petition are attached 166 signatures. With the exception of some half a dozen, the signatures are those of people within 15 or 18 miles to the west, and perhaps 25 miles to the east, and north-east of Gilgandra.

983. How many are resident on Gilgandra and west from Gilgandra? There would be over 100.

984. Therefore, two-thirds live at Gilgandra and west from Gilgandra? Yes.

985. Then the present population is down the river, or rather towards the west, and not to the north and the east? That is the case as regards those signing the petition. I desire to give the Committee some statistics showing the importance of the district of Gilgandra. The first is with reference to the revenue of the local Post and Telegraph Office. The revenue for 1897 is not obtainable; but for the year 1896, the official return shows a revenue at this office of £728; that includes post and telegraph returns as well as postal notes and money orders. I have some figures also with reference to the rainfall. I have taken an average for seven years, from 1891 to 1897 inclusive. The average rainfall at Gilgandra for that period was 25·8 inches. For the months of January and February of this year the rainfall has been 9·83 inches.

986. What is the rate of carriage for goods from here to Dubbo? About £2 a ton, or probably a little more.

987. Is that for wool? I think the average for wool would be rather higher. Store goods would average about £2. The rate ranges from 1s. 6d. a hundred, which is very rare, to 3s.

988. The approach by road to any part of the railway system of this Colony represents, roughly speaking, £2 per ton? Yes, I think that is about a fair average.

989. With such variations as the seasons, back loading, and such things permit? Exactly.

990. Do you know how much stock passes through here? No.

991. And you do not know the volume of traffic going through? I notice a great deal of it, but I can hardly give an estimate. It is considerable in the wool season. Dubbo is the *dépôt* for everything passing through this district except stock. Some of the stock finds its way to Mudgee. I am not able to say the proportion. The number of stock going to Dubbo would greatly preponderate. I should like to point out that the farming operations in this district have increased considerably within the last three years, and the residents are now about to form a company to build a flour-mill. I believe if the land-carriage of 6d. per bushel were reduced by the existence of a railway the people would put their land to the best use, namely, agriculture.

Sydney James Barden, grazier, near Gilgandra, sworn, and examined:—

- S. J. Barden.
28 Mar., 1898.
992. What are you? A grazier, residing within 8 miles of Gilgandra, down the river, towards Coonamble.
993. How long have you resided there? Since the 9th December, 1875.
994. What is the area of your property? About 7,400 acres.
995. Is it devoted wholly to sheep-farming, or do you keep some for cultivation? I cultivate a certain amount.

S. J. Barden.

28 Mar., 1898.

996. Sufficient for your own use? More than that. Last year I cultivated about 100 acres.
997. How many sheep do you run? About 7,000.
998. Any cattle? Yes, about fifty head—just a milking herd.
999. Can you run 7,000 sheep on your land with a feeling of perfect safety that you are not overstocking the run? Yes, on that country.
1000. Is that a fair indication of the carrying capabilities of the district, or is yours exceptionally good country? I think it is exceptionally good country.
1001. What crops do you cultivate? Generally wheat.
1002. For how many years have you devoted land to that purpose? On a small scale, I have been growing stuff for about twenty years.
1003. And how many failures have you had? During the whole of that period I cannot call to recollection one total failure; that is to say, if we did not produce grain there was a certain amount of hay crop during the whole time.
1004. What would be a fair estimate as to the number of years the crop would fail, judging from the experience you have had? I consider you would get four seasons out of five; there would be one failure in five years.
1005. What would be the yield per acre? Not less than about 17 bushels.
1006. In saying that you are not giving what would be the average yield in the district, but are speaking from your own personal experience? I am speaking from my own personal experience, as regards my own property, and that of the neighbours around me.
1007. Holding land favourably situated like yours? Yes.
1008. Have you been gradually increasing the area under cultivation? Yes; the first year I put in 4 acres. That was about twenty years ago, and I have since increased the area until I have now about 100 acres under crop. This year I expect to have 300 acres.
1009. How many acres of cultivation are necessary for the use of the station—I mean for fodder? About 12 acres.
1010. That would leave 88 acres, the product from which you sent away to market? Yes.
1011. Where did you send it? To Dubbo.
1012. Is that the nearest railway-station? Yes.
1013. Was it sold in Dubbo, or did you send it to Sydney? It was sold in Dubbo.
1014. Is there a fair market for it in Dubbo? Yes; very fair.
1015. Is there a mill there? Yes; a co-operative mill.
1016. When you get the 300 acres under crop will you still send wheat to the mill at Dubbo? Yes; I have no other market.
1017. Would it not pay you better to send it to Sydney? I think not.
1018. Before sending it to the mill at Dubbo for sale I suppose you went into a calculation as to whether you would get as good a price there as if you sent it to the Sydney market? Yes; but judging from the ruling prices I did not see that there was anything to be gained by sending it to Sydney.
1019. You think the average price at Dubbo would be equal to what you would get at Sydney after paying all expenses? Yes; and taking into consideration the risks.
1020. And what would you get for it in the Sydney market? In the Sydney market the price was about 4s., and in the Dubbo market about 3s. 8d.
1021. What was the freight up? I think about 8d.
1022. What would it cost for cartage from your station to Dubbo? Wheat is being carted for 6d. a bushel.
1023. Did you sell it delivered at Dubbo? Yes.
1024. What did you pay for the delivery of it? 6d. a bushel.
1025. And you got 3s. 8d.? Yes.
1026. What would be the net price after paying all expenses? About 3s. 2d.
1027. What do you consider is the cost of producing wheat—how much does it cost you? I do not know, because it was mostly done with our own labour.
1028. What would be the price at which a man in this district would get a living growing wheat on land like yours? Three shillings—that is with the facilities we now have for getting to market; but it would be 2s. if we had a railway.
1029. Do you think a man could get a living at 2s. if you had a railway? Yes, I am sure he could—farming on a large scale.
1030. You would not like to give an estimate of what the wheat for which you got 3s. 2d. per bushel cost you? No; I could not say exactly.
1031. Have you ever made an estimate of what an acre of ground under wheat would return as compared with an acre devoted to sheep farming? Yes; I reckon that the acre under wheat would give 100 per cent more. As against 5s. an acre out of sheep, you would make 10s. out of wheat.
1032. You estimate that you clear 5s. per acre out of sheep? Yes, taking everything.
1033. Would that be net after paying all expenses? Yes; and reckoning the increase to the wool and everything. They would be very bad sheep if you could not. I think there is no comparison between sheep and wheat.
1034. Having had some years' experience, in the event of a railway being constructed from Dubbo to Coonamble, would you go in for a marked increase in cultivation? Yes; if we had the luck to get railway facilities, instead of having 300 acres under wheat, I should in a very short time have 2,000 acres. Every acre of land that was available for cultivation I should devote to wheat-growing.
1035. Feeling assured that you would make 100 per cent. more out of your land in that way than by sheep-farming? Yes.
1036. Is that the prevailing opinion of men in the district? That seems to be the opinion throughout the Gilgandra district—that if they had railway facilities they would utilise all the land they could for the purpose of growing wheat.
1037. Do you grow corn or any other crops? Yes; I have grown all kinds, including corn, oats, wheat and lucerne. I have grown wheat principally.
1038. Do you grow much fruit? Yes; I have an orchard of about 2 acres.
1039. Do you grow the fruit for sale, or just for home consumption? Just for home consumption, and I give some away to my neighbours.
1040. It would not pay you, I presume, to grow fruit for sale? No.

- S. J. Barden. 1041. Do you think the land is admirably adapted for orchards? Yes.
- 28 Mar., 1898. 1042. If a railway came this way, would there be a market for the product of the orchards in many of the large towns between here and the metropolis? I could not say.
1043. Do you send much wool down to Sydney? I send the whole of the clip. I have had from 5,000 up to 11,000 sheep. I generally have, on an average, 7,000 sheep, and about 120 bales of wool. That would be 20 tons per annum.
1044. What is the carriage on that? £2 a ton to Dubbo.
1045. You know that the line referred to this Committee for its consideration is one from Warren to Coonamble? Yes.
1046. If that line were constructed, would it be of any use to you? No; it would be injurious to us.
1047. In what way? We could not send our stuff to it, and it would debar us from getting a railway here.
1048. How many miles from your property would the line from Mudgee to Coonamble be, taking the surveyed route? I think about 18 miles to the north-east.
1049. Do you know the country well between here and Mudgee? I have travelled over it several times.
1050. What is your opinion as to the Mudgee and Coonamble line? If I were to give my opinion with regard to that line I should say that on national grounds the Mudgee-Coonamble line was the proper one.
1051. You are putting personal interests, I suppose, on one side? Yes; I say on national grounds.
1052. If the Mudgee-Coonamble line were constructed it would be of great advantage to you? It would be an advantage, but not nearly so much advantage as the Dubbo-Coonamble line. There would be no comparison between the two.
1053. Is the character of the country such as to cause the construction of a railway from Mudgee to be much more expensive than a line from Dubbo to Coonamble? Very much so; it would be a very expensive line.
1054. On what portion of the line would the heavy cuttings be? It would be necessary to cut the dividing range between Cobborah, and to go through this side of the Warrumbungles, and it would also be necessary to put a bridge across the Castlereagh. On the eastern side of the Warrumbungles the country gets better as regards construction.
1055. There is a large amount of very fine land on the route? Yes, agricultural land.
1056. Extremely fertile? Yes.
1057. Capable of growing anything? Yes, good land.
1058. If the Mudgee line were not constructed you would favour the Dubbo-Coonamble line? As far as I am personally concerned I favour the Dubbo line; but from a national point of view I must admit that the line from Mudgee is the proper one.
1059. The line from Warren to Coonamble would be of no use to you personally? No.
1060. What is your opinion as to the desirableness or otherwise of constructing a line from Warren to Coonamble? In the first place I think it would be a non-paying line for all time, and in the next place there is very little settlement on it, and there is no land there that would offer inducements for people to settle and engage in agriculture. There is very little agricultural land between Warren and Coonamble.
1061. Do you know the country well. Yes; I know every inch of it.
1062. Do you know it not only along the line, but for any distance on either side? Yes; I have been all through the district, and have known it for years.
1063. Is there not some very fine agricultural land along that line? There may be patches, but only patches.
1064. Is it more patchy than along the line between Gilgandra and Coonamble? There is no comparison between the two as regards agricultural land.
1065. Do you regard the country between Gilgandra and Coonamble as far superior for cultivation to the country on the line from Warren to Coonamble? Yes; I think there is no comparison as regards agriculture. For grazing purposes, I think the land between Warren and Coonamble is quite equal to any of the land between Gilgandra and Coonamble.
1066. If the Committee have had evidence from people who say that from long experience they believe the land between Warren and Coonamble to be admirably suited for the growth of cereals, you would beg to differ from those witnesses? Yes.
1067. And you regard it only as good grazing land? With the exception of a few patches here and there.
1068. How do you regard the country around Bullagreen? As grazing land.
1069. Would it not be suitable for agriculture? No; I should think not.
1070. What are your reasons for that opinion? I have worked similar ground.
1071. Where? Down here, and at Yalcogrin.
1072. Do you think there will ever be an agricultural population settle around Bullagreen? I do not.
1073. Could you compare the character of the soil on the Warren-Coonamble line with that on the Dubbo-Coonamble line? Nearly the whole of the land between Warren and Coonamble is myall country, and if you touch that land at any time while it is moist it goes together like a brick, so that you cannot work it in dry weather. Of course, it will not go together while it remains dry, but immediately rain comes on the soil sets like a brick, and then a very short time afterwards it all opens in great cracks. One can almost shove one's leg down in many places.
1074. Now tell us how you regard this country as compared with that? Nearly the whole of the country between here and Coonamble is rich agricultural land, consisting of yellow box, apple-tree, and kurrajong.
1075. *Mr. Hassall.*] You are dealing with river frontages? Yes; the whole of the river frontages.
1076. *Chairman.*] The line on the western side of the Castlereagh virtually follows the road from here to Coonamble? Yes.
1077. Since the railway is on the western side of the Castlereagh River, and you describe the country as fit for agriculture, it will be necessary to construct bridges to enable those on the eastern side to reach the railway? There are roads and good places to get up and down the river every few miles.
1078. How wide is the flat on the Castlereagh—what you regard as good agricultural land on the bank of the creek? I should say, on an average, three-quarters of a mile on both sides.
1079. That is your best land? Yes.
1080. How wide is the agricultural land on the Marthaguy? I should say only about a quarter of a mile on either side. That is the river frontage land—the best land. Between the Marthaguy and the Castlereagh, at Gilgandra, the distance is about 6 miles, and it gradually widens, since one river runs north-west,

- north-west, and the other pretty well west. Between the two rivers lies what is known as the Monkey Scrub. Some of this I regard as useless, but in places it is firm, and, in my opinion, fit for cultivation; but as you go further to the west of the Monkey Scrub there is splendid land suitable for cultivation.
1081. Between the Monkey Scrub and the land you have described as the best land in the district, having a frontage to the Castlereagh, what intervenes? That is all high-class agricultural land, right to the river flats.
1082. What kind of country is Collie? Good country.
1083. Fit for agriculture? Yes.
1084. Is it fit for agriculture only on the banks of the Marthaguy? No, there is a large area of good agricultural land.
1085. And Berida—is it good agricultural land? Yes; parts of it.
1086. Going due north from Berida, say about 6 or 8 miles west from the surveyed line, what sort of country would you go through? High class grazing land—grazing land right along the line.
1087. As good as that at Bullagreen? Yes; it is a similar country to that which the Committee saw to-day.
1088. *Mr. Hassall.*] This being a proposal to construct a railway to Coonamble, in the event of the State not being willing to stand the expense of a line from Mudgee, and also, perhaps, thinking that a line from Dubbo might cost rather too much, looking upon the extension from Warren to Coonamble as the cheapest, would you object to the Coonamble people getting the line from Warren if you did not get the railway this way? If it were in my power I would in the interests of the country.
1089. You consider that the only outlet for the Castlereagh country, failing the connection with Mudgee, is Dubbo? Yes.
1090. The agricultural country you think is better between Dubbo and Coonamble than between Warren and Coonamble? Yes.
1091. And the grazing country is quite equal? Yes. I consider that the grazing land from here to Coonamble is equal to the very best grazing land on the Warren to Coonamble line; and as regards agricultural land, I think there is no comparison between the two routes.
1092. What is about the average wheat yield per acre in this district? My yield has been from 14 to 30 bushels.
1093. What is the extent of agricultural land on the eastern side? There are thousands of acres of good agricultural land on towards the Warrumbungles. The river flat towards the Warrumbungles is many miles in width, and consists of high-class agricultural land.
1094. Is it a fact that the sandy portion of the Monkey Scrub disappears altogether a few miles from Gilgandra? Yes.

S: J. Barden.
28 Mar., 1898.

John Francis, grazier and farmer, Gilgandra, sworn, and examined:—

1095. *Mr. Hassall.*] What are you? A grazier and farmer, residing about 2 miles from Gilgandra, on the banks of the Castlereagh. I am president of the Railway League.
1096. What area do you hold? About 1,000 acres.
1097. How much of that is devoted to grazing, and how much is under cultivation? About 60 acres are under cultivation, and the rest is devoted to sheep.
1098. Is your country equal in its carrying capacity to that described by Mr. Barden? It is not quite as good as Mr. Barden's land.
1099. Not quite a sheep to the acre? It is in some seasons, but I would not say it would carry that every season.
1100. Would it be better to put its average carrying capacity down at 2 acres to the sheep? I think we can carry one sheep to the acre.
1101. How long have you been resident of the district? About sixteen years.
1102. Then you have seen settlement increase in the district? Yes.
1103. Was there much settlement when you came here first? Very little.
1104. I suppose Gilgandra was only a small town then? There were about two houses in the place, I think.
1105. The growth of the town and the increase of settlement in the district, I suppose, afford the strongest proof you could have of its suitability for settlement? It is one proof, a very strong proof.
1106. Do you look upon this as a prosperous district? I do. It would be more so if we had a railway.
1107. Your drawback is want of better means of communication? Want of transit for what we grow.
1108. You heard the evidence given by Mr. Barden? Yes.
1109. Do you corroborate his evidence? I do in every respect.
1110. You can endorse the opinions he has expressed with regard to the character of the country and its suitability for agriculture throughout almost the length of the Castlereagh valley? I can more than endorse the statements of Mr. Barden, because it appeared to me that he only spoke about one side of the river. He omitted reference to the capabilities of the eastern side of the river.
1111. What is your experience of the eastern side of the river? I am on the eastern side myself, and I know from what I have seen, and from the experience I have had, that there are a hundred thousand acres out there equally as good as the land I occupy.
1112. That is the land lying between the river and towards the Warrumbungle Mountains? Yes, all of it is good agricultural land.
1113. Is the grazing capacity of that land equal to what has been stated? No, it is not, because it is all scrub land.
1114. But you think, if the land were cleared, it would be better, or quite as good, as any of the land on the river bank? If that land were cleared, it would be as good for carrying crops as any land you can find on the river. It is perfectly useless now; in fact, it is only a harbour for noxious animals.
1115. How far up the river does that land extend—right up to where the river leaves the Warrumbungle Ranges? Of course, there are patches of good land, cleared land, but the scrub land extends nearly from here to the Warrumbungles.
1116. With regard to a line from Dubbo to Coonamble, how far distant would the farms in that portion of the country be from the railway? The distance would vary, of course, but I should say they would be from 15 to 20 miles away.
1117. You think they could reach the railway within 15 to 20 miles? Yes; I do not think the whole of them could, but a very large number would be able to do so.

J. Francis.
28 Mar., 1898.

- J. Francis.
28 Mar., 1898.
1118. Those on the river, at any rate, for some considerable distance, would be within 15 miles? Those on the river would only be about 7 or 8 miles away.
1119. How far is Balladoran from the river? About 8 miles.
1120. Then a railway running near Balladoran, which is 12 miles from here in a southerly direction, would be only 8 miles from the Castlereagh? Yes.
1121. So that you could go back from the Castlereagh for another 7 or 12 miles, and still be within a radius of 15 or 20 miles of the railway? Exactly.
1122. Is the country lying between the road from here to Berida and the river good agricultural country? The whole of it is good agricultural country.
1123. So that you think that in that stretch of country you have a strip (say) 25 miles in width, running eastward, suitable for agricultural settlement? Yes.
1124. Is much of that country taken up? Very little of it.
1125. And it is not likely to be, I suppose, until you get better means of communication? No.
1126. Then, practically, it resolves itself into this—that you have at the present time a large tract of valueless land, a harbour for vermin, and consequently a menace to everybody settled near it, and you think the construction of a railway line would be instrumental in bringing that land under occupation, to the benefit of the State and of the individual? I am positive of it. I should like to say that I think it is of more advantage to the State to construct a railway through an agricultural district than through a pastoral district.
1127. What do you estimate to be the cost per bushel of producing wheat? I estimate the whole cost of the production of wheat, if you have to employ labour, at from 30s. to £2 an acre. If you have your family employed, of course, it does not cost you so much. That estimate includes all the work required in order to place the article on the market.
1128. What does it cost you per acre to clear the land ready for the plough? It depends on circumstances. If you clear land that has been rung for several years the work is easier, and you can clear it at a cost of from 15s. to 20s. an acre. If you have to deal with green timber the cost will be from 30s. to £2 an acre.
1129. Land that you can get cleared for from 30s. to £2 an acre is not very heavily timbered? Labour is cheap, and if land is fairly heavily timbered you can get it cleared at from 30s. to 40s. an acre.
1130. Is there much land ringbarked in this part of the country? No large quantity has been ringbarked for any length of time. All the river flats have been ringbarked, because that has been the only country that has been occupied for any length of time, and all the stations have done a large amount of ringbarking.
1131. But the country you speak of is practically in its natural state? Yes.
1132. Heavily timbered and scrubby? It is heavily timbered, but the scrub is heavier.

Arthur Frederick Garling, storekeeper, Gilgandra, sworn, and examined:—

- A. F. Garling.
28 Mar., 1898.
1133. *Chairman.*] How long have you been resident here? I have lived in the district about four years and in Gilgandra township for about one year.
1134. Do you know the district sufficiently well, and the occupation of the people, to corroborate the statements made by Mr. Barden? Yes; especially as regards the eastern side of the Castlereagh.
1135. And you believe it to be correct in every way? Yes.
1136. What does it cost you to get store goods from Dubbo to Gilgandra? Generally about 2s. a cwt., according to the quantity of loading we make up. Sometimes it is as high as 3s., and sometimes as low as 1s. 6d., but generally it is about 2s. The railway freight during ten months paid to Wright, Heaton, & Co. in Dubbo amounted to £412 6s. That represents freight paid by Wright, Heaton, & Co. for the carriage of goods on the railway from Sydney to Dubbo. The amount paid to teams for carriage between here and Dubbo was £250. I estimate the total tonnage at nearly 160 tons. During the past eight months I have had about 36 tons of flour from Dubbo, for which I paid from 1s. 6d. to 2s. a cwt. carriage.
1137. What proportion of the trade of the district as a distributor do you think you had? I could hardly say, but I should imagine that quite three or four times the quantity mentioned came from Dubbo this way. With regard to the Mudgee line, I should like to mention that on the eastern side near Gummin Gummin there is a deposit of kerosene shale which seems to be of good quality. Its extent is not known, but the distance from a railway prevents anything being done with it. There is a very large deposit of tripolite in the Warrumbungle Mountains, within 12 or 14 miles of the proposed Mudgee line. This would find a ready market if there were cheap freight, but the team carriage of 100 miles to Mudgee prevents anything being done. In my opinion the right line for the country to construct is the Mudgee-Coonamble line. It would pass through the largest area of good country and the greatest amount of settlement, and, besides that, the distance to Sydney, *via* Mudgee, would be considerably less than the distance *via* Warren. That would be a very great consideration in getting goods to market and in sending stock away. If sent *via* Warren the stock would be so many hours longer in the train, and the greater cost in freight would be a big item to the inhabitants of Coonamble and the people in the surrounding districts. Then again, the line from Mudgee would pass through better country—country that could be cultivated perhaps from Mudgee to within 30 miles of Coonamble. It would be better to have a line running through that would be within easy distance of many of us, though it would not suit us quite as well as the line from Dubbo. At present some of our goods come through Mudgee to this place. I am speaking from a national point of view. I produce seven samples of wheat grown contiguous to the Mudgee line north-east from Gilgandra. The market for that wheat has been Dubbo, and it has been sent through Gilgandra. Most of it is being grown within 5 or 6 miles of the proposed Mudgee line, and the country from here to there is good with the exception of a few strips. With regard to the cost of wheat production, having done a little farming I can give you an approximate estimate. Much depends upon the manner in which the work is undertaken. The total cost of production would be about £1 per acre, leaving a good margin. I do not include the cost of clearing, which is a permanent improvement. The average yield of wheat in this district for the present year has been 20 bushels, and I do not regard it as a first-class year. We have practical evidence that the land here is suitable for the growth of tobacco, and oranges and other fruits can be seen growing.

Thomas Gardiner, blacksmith, Coonabarabran, sworn, and examined:—

1138. *Chairman.*] What are you? A blacksmith. I am a native of Coonabarabran, in which district I have resided all my life. T. Gardiner.

1139. Will you describe the country in the Coonabarabran district likely to be affected by the proposed railway construction? Coming down from Coonabarabran a valley nearly 30 miles wide extends from the river until the Warrumbungle Range becomes too abrupt for cultivation. On the eastern side the area of land suitable for cultivation is still wider. From Coonabarabran, coming right down towards Gilgandra, there is a belt of country that I believe to be 60 miles wide, which is fit for cultivation. The flat narrows up very much towards Coonabarabran.* 28 Mar., 1898.

TUESDAY, 29 MARCH, 1898.

[The Sectional Committee met at Hitchen's Hall, Gilgandra, at 9:30 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The HON. CHARLES JAMES ROBERTS, C.M.G. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Warren to Coonamble.

Archibald Campbell Berry, senior police constable, Gilgandra, sworn, and examined:—

1140. *Chairman.*] What are the boundaries of your district? My boundaries for the purposes of the statistics which I collected are these:—On the western side of the Castlereagh, 10 miles past Curban; to the west, as far as Berida; to the south-west as far as Bundemar; on the south-east by the Coolbaggie Creek up to Runter's Creek; thence by that Creek downwards to the Castlereagh River at Breealong. I start from Breealong, and go as far as Toorawheena, which is about 27 miles from Gilgandra; thence I go down the Terrible Creek to the Castlereagh. I hand in statistics relating to land and cultivation:— A. C. Berry.

County Ewenmar, Police District of Dubbo, 1896-97.

Number of holdings.	Alienated lands.		Crown lands.	Total area under cultivation.	Area under wheat for grain.	Total yield of wheat.	Remarks.
	Freehold.	Rented.					
47	Acres. 93,324½	Acres. 5,280	Acres. 262,676	Acres. 187½	.....	.....	The major portion of these Crown lands is far better cultivation land than grazing land.
42	80,090½	5,400	248,440½	231	48	908	The reduction in land this year from last is caused through sales, and the areas being taken in another police district.
County Ewenmar, Police District of Coonamble, 1896-97.							
32	47,601	990	63,233½	479	75	1,052	
1897-98.							
31	42,239½	2,898½	82,432	518½	241	4,787	A much larger increase of cultivation will be shown next year.
County Gowen, Police District of Coonamble, 1896-97.							
46	14,816½	780	79,641	276½	77	920	A very large portion of these Crown lands is more suitable for cultivation than grazing.
1897-98.							
49	18,852½	1,364	69,881½	567	222½	4,337	A much greater increase in wheat cultivation will be shown next year.

These holdings in both counties are within 40 miles of Gilgandra, and would all assist in supplying produce for the proposed railway.

There is an estimated population of between 1,500 and 1,600 within the boundaries of the district as previously given. Going up and down the river the distance would be 27 miles, and right across from south-west to north-east the distance would be between 60 and 70 miles. I hand in figures giving the revenue in connection with the Court:—

	1896.	£	s.	d.
Total receipts all classes	...	...	...	...
Actual revenue	...	...	...	...
		130	19	6
		87	9	10
Public moneys	...	£43	9	8
	1897.			
Total receipts all classes	...	...	...	...
Actual revenue	...	...	...	...
		272	2	1½
		124	15	8
Public moneys	...	£147	6	5½
	1898.			
Total receipts to date	...	...	...	...
Actual revenue	...	...	...	...
		31	13	7
		14	7	10
Public moneys	...	£17	5	9

James

* NOTE (on revision):—I did not mean to say that the whole of the area between the Warrumbungle Ranges and the river was fit for cultivation, as there are belts of scrub and mountainous country between the main range and river which would not be fit for any cultivation. Some of the best wheat-growing land in the Coonabarabran district is found to be at the foot of the main range, while lower down it again becomes, in places, too mountainous for agriculture. I think about one-third of the area mentioned would be fit for cultivation.

James Barling, grazier, Bongeabong, near Gilgandra, sworn, and examined :—

- J. Barling.
9 Mar., 1898
1141. *Mr. Hassall.*] What are you? A grazier, residing at Bongeabong, about 6 miles from Gilgandra.
1142. How long have you resided in the locality? About three years.
1143. What is the extent of your holding? About 28,000 acres including leasehold.
1144. How much longer has the leasehold to run? About two years; it falls in in 1900.
1145. I suppose your land is devoted principally to grazing? Yes.
1146. What number of sheep do you carry? At present I am understocked, but 14,000 is about the carrying capacity.
1147. Would you carry 14,000 in all seasons? Yes.
1148. Of what does the land principally consist? Forest chiefly—a little plain, box, and buddha.
1149. Is there much scrub? In portions of it there is a good deal of scrub.
1150. But it is essentially good pastoral country? Yes.
1151. I suppose it is sound country, there is no disease? I have not known disease of any sort since I have been here.
1152. You look upon it as country admirably adapted for grazing pursuits? Yes, and also for agriculture.
1153. It also contains agricultural land? Yes; a large proportion of it—nearly the whole of the scrub land—is suitable for agriculture.
1154. Have you tried cultivation on a small scale? Yes, on a very small scale, and it has answered admirably.
1155. Practically it has been mainly experimental work? Yes.
1156. Do you find the scrub land or the plain land the better adapted for cultivation? As far as I have had any experience, I should say the scrub land was the better—the timbered country at all events.
1157. The soil, I presume, is more loamy than is the case on the plain? Yes; the plains consist of black soil, myall country; not so suitable, I should say, for agriculture as the timbered country.
1158. You heard the evidence given by Mr. Barden in that respect, and your experience, I presume, would corroborate his evidence with regard to myall country being difficult to deal with? Yes.
1159. Do you find it is good fattening country? Yes; portions of it consist of very good fattening country.
1160. Do you send fat sheep to market? Yes.
1161. Where do you truck? At Dubbo.
1162. Forty miles by road? A little over 40.
1163. I presume the construction of a railway from Warren to Coonamble would be of no use to you? None whatever. It would, in fact, be an injury, because it would prevent the construction of a line anywhere else.
1164. You would be as far away from the nearest point on the Warren-Coonamble line as you are from Dubbo? Quite as far, or very nearly so. I should never think of trucking sheep on any portion of that line, or sending goods of any sort there.
1165. Are there many settlers around you? Yes; a considerable number.
1166. Do they confine their operations chiefly to sheep-farming? Yes; but they are all more or less going in for agriculture.
1167. They are adopting mixed farming? Yes.
1168. In the event of a railway being constructed from Warren to Coonamble, that would be of no service whatever to you, or to the residents along this portion of the Castlereagh? None whatever.
1169. So that they could expect no increase of traffic from this quarter on that extension? None whatever.
1170. Which line would suit this district in your opinion? The Dubbo-Coonamble line; that would be the best, and it would be the nearest for myself and others here.
1171. It would be the shorter distance to Sydney than going round by Warren? Yes.
1172. In the event of an extension of the railway from Dubbo to Coonamble, a result that might naturally be expected in this grazing country would be that settlers upon the smaller areas (say) 2,560 acres, and family selections of 5,000 acres, would be able to send away one truckload of fat sheep or fat cattle? Yes; where it would not pay to do so at the present time on account of the cost of droving.
1173. No man cares for the expense of droving 100 sheep to Dubbo, or eight or ten head of cattle? No.
1174. Although they may have fat stock they may not have a sufficient number to justify the expense of droving to Dubbo, and, consequently, they have to let their stock remain on the place, and sacrifice them? Yes.
1175. Or wait till the middle-man comes along? Yes.
1176. There can be no doubt that the extension of the railway through this country would be very beneficial to the small holders as well as to the large holders? Most certainly.
1177. Are there many large holdings about here; what is the largest holding in the vicinity? I could not say, but I think Berida would be the largest. I think they shear 50,000 or 60,000 sheep.
1178. What quantity of wool do you send away? Last season I sent 120 bales and the season before 160 bales. The quantity varies according to the season.
1179. Your wool is sent to Dubbo? Yes.
1180. And the station supplies come back *via* Dubbo? Yes.
1181. You look upon Dubbo as your point of departure from here on the railway? Yes.
1182. How many fat stock do you send away in the year? I could hardly give you the number; I sent away 1,200 a week or two ago.
1183. In a good season, I suppose, you would send 4,000 or 5,000 fats away? I could do so, if I went in for fat stock.
1184. This country is too good for breeding, is it not? I do not think so.
1185. Judging from what you have seen of the country, do you think it is suited for what is termed closer settlement; when the land becomes available as the leaseholds fall in, do you think there will be any great demand for it? I believe there will.
1186. Which is the nearest land office—where do you transact your land business? A portion of my property is in the Dubbo district, and the other portion is in the Coonamble district. The Marthaguy Creek is the dividing boundary between Dubbo and Coonamble. The country on the western side of the Marthaguy is in the Coonamble district, and the country on the eastern and southern sides is in the Dubbo district.

1187. So that the land business transacted in this district is distributed between Dubbo and Coonamble? Yes. J. Barling.
1188. Is there any great demand for land here, when it becomes available? I can hardly answer that question. There is very little land available at the present time, I believe; but when the runs were divided some years ago there was a great rush for land. All the land that was worth taking up was immediately rushed and taken up. 29 Mar., 1898.
1189. That was when the marked increase in settlement took place in this district? Yes.
1190. And that, you think, would be a pretty fair guide as to what might occur in the future, when the present leaseholds fall in? Yes; seeing the way in which land is rushed wherever it is available now, I think the rush is likely to be even more marked than it was formerly.
1191. Have you any idea as to whether those who have already settled in the district and taken up land on a small scale are doing fairly well? Yes; I think as a rule they are doing fairly well.
1192. Any careful, steady man can get along? I think so.
1193. You have not had a sufficiently long residence in the district to form an opinion as to whether the seasons will be disastrous to you, or whether they will be fairly favourable? I think we had rather a hard time since we have been here. We have had unfavourable seasons, but we have managed to pull through fairly well. I am in hopes we have seen the worst.
1194. The present season is fairly good? Yes; I think the Coonamble district fares better than a great many other districts—better than Bourke.
1195. Do you think the Castlereagh country will stand a drought fairly well? Yes, as far as I have had experience.
1196. Judging from your experience of cultivation, do you think that agricultural and grazing pursuits might be profitably combined? I think so.
1197. That considerable quantities of land might be put under wheat with advantage, and the straw saved for fodder for the stock in dry times? Yes.
1198. With regard to water supply, have you sunk for water? I have sunk in one of the paddocks. I sunk over 80 feet for water, and I got a good supply. I watered all the sheep I had in the paddock in the dry time—about 1,200 sheep.
1199. Then there is a possibility of water being found at a reasonable depth by persons of small means, who might come and take up the country when it was available? Yes.
1200. So that they need have no fear on that score? I think not the slightest; and the rainfall is sufficient at all times to enable a supply to be maintained by means of dams.
1201. There are other wells sunk in the district? Yes; I believe so. I believe that water is found at depths varying up to 80 feet—a good supply of good water.
1202. With regard to the proposed line from Mudgee to Coonamble, have you given any thought to that proposal? No. I know nothing of the country, and know nothing about it except from looking at the plans.
1203. Summing up your evidence, you believe that the best way in which this district could be served would be by an extension of the railway from Dubbo to Coonamble? Yes; I believe that would benefit the greater number of people in the district, and would be the best line.
1204. The extension from Warren to Coonamble would be of no service to this part of the country, and certainly of no service to the country between here and Dubbo? None whatever. As far as agricultural pursuits are concerned, though I have only a limited area under crop at present, I am preparing about 120 acres, which I hope to get in this season.
1205. In the event of a railway being constructed through the district, I suppose there is no doubt you would cultivate a much larger area? Yes, much larger; all the land available, eventually.
1206. How many men would you employ in preparing the 120 acres which you hope to get in this season? It is to be done by contract. I think the contractor has five or six men working at it now.
1207. It will mean the employment of a few hands in ploughing and sowing, and in harvesting the crop, and so on? Certainly. It will mean one or two hands extra, at all events, for the working of the place.
1208. And the larger the area put under cultivation of course the greater number of hands employed? Yes.

Richard Hitchen, butcher and farmer, Gilgandra, sworn, and examined:—

1209. *Mr. Roberts.*] Have you resided in the district for a long period? Nearly twelve years. R. Hitchen.
1210. Has the district around Gilgandra made any marked progress during that period? Yes; wonderful progress. 29 Mar., 1898.
1211. Was there much settlement when you came here twelve years ago? Very little; there has been a great deal of settlement since.
1212. You heard most of the evidence given before the Committee? I have heard that given by Mr. Barden and Mr. Garling.
1213. Do you approve of the gist of that evidence? Yes.
1214. Are you prepared to endorse all that Mr. Barden said? Yes.
1215. You know the three lines which are under the consideration of the Committee? I do not know a great deal about the Warren line; I know the country about Bullagreen and towards Merri Merri.
1216. Have you formed any opinion as to the quality of the soil at Bullagreen, as compared with what you see around you in this district? Yes.
1217. What conclusion have you arrived at with regard to the two districts, and their suitability for the growth of cereals? I do not think there is any comparison between the land about here and the Bullagreen land for farming purposes.
1218. You know the country very well between here and Gulargambone? Yes.
1219. Do you regard that as good agricultural country? Yes; a great deal of it.
1220. Have you never heard it mentioned as being too sandy? No; far from it. There are only very odd patches of it that are sandy. It is mostly very good soil right through, especially down along the river. There are just odd patches of myall in places.
1221. Do you purchase much live stock yourself? Yes; a good deal.
1222. Do you purchase locally? Yes.

- R. Hitchen. 1223. Is there much stock fattened in the district? Yes; there is a good deal of both sheep and cattle fattened about here.
- 29 Mar., 1898. 1224. That stock would be trucked at Dubbo? Yes.
1225. Is there a large passenger traffic through from Dubbo to Coonamble? Yes; pretty good.
1226. Has it fallen off at all since the line from Nevertire to Warren was constructed? I could not say. Some of the plains, in my opinion, are unsuitable for agriculture. The black soil would be no good at all for farming, because it bakes and cracks.
1227. *Chairman.*] What plains are good for agriculture? What they call the Buddtha Plains. At Berida there is a considerable area of agricultural land. Going north from there to Merrigal you are on the plain country. I have about 30 acres under cultivation, and next year I expect to have from 130 to 150 acres. If we have a railway that area will be increased to from 400 to 500 acres. In my opinion, wheat can be produced in this district at a cost of from £1 to 25s. per acre.

Peter O'Neill, farmer, Gilgandra, sworn, and examined:—

- P. O'Neill. 1228. *Chairman.*] Where do you live? About 2 miles from here, towards Dubbo.
- 29 Mar., 1898. 1229. What is your occupation? Farming.
1230. How long have you been farming? About fifteen years.
1231. In this district? Yes.
1232. What are you growing? Wheat, corn, and sometimes potatoes and oats.
1233. What kind of country are you farming? River flats.
1234. In your opinion, is that the best land in the district? I think it is; I believe there is some quite as good out from the river.
1235. What is your area? 660 acres. I have about 60 acres under cultivation.
1236. What yield do you get in wheat? An average of from 15 to 20 bushels.
1237. Over what period? Fifteen years.
1238. The same country? Yes; except that the area has been gradually extending.
1239. How many failures have you had in the fifteen years? One absolute failure.
1240. What was the next worst year? About a quarter of a crop.
1241. That would be about 4 or 5 bushels? Yes.
1242. And the next worst year? I do not think I had any other bad seasons.
1243. After those two you went on pretty well, with an average of 15 bushels? Yes.
1244. Do you think these plains will grow wheat? Some of the plains around here will grow wheat.
1245. The red plain will, and the black plain will not—is that right? Yes; open forest country will grow wheat. Generally speaking, we divide them into red or chocolate plains, and black plains. The black, in my opinion, will not grow wheat. Patches of the land at Bullagreen will grow wheat.
1246. Do you know Berida? Yes.
1247. What is your opinion of that from an agricultural standpoint? There is a lot of good agricultural land there.
1248. And Merrigal? That is more for grazing.
1249. Do you know Kickabil? There is a lot of land on Kickabil that will grow wheat.
1250. Do you know the line as surveyed from Gilgandra to Dubbo? Yes; I know pretty well the way the survey goes.
1251. From Gilgandra to Dubbo what do you think of the country as a rule? I think it is nearly all good wheat land. There might be odd patches, but most of it I am quite positive is good wheat land.
1252. What would it cost to clear? It is fairly heavily timbered. It might cost in green timber about 30s. an acre, and if ringbarked about £1. I produce a sample of wheat grown 2 miles from here along the Dubbo road on the edge of the Monkey Scrub. The maize I produce was also grown there. This is land which was at one time considered unfit for cultivation. A great many large land-owners are commencing to go in largely for wheat, but I do not think the undertaking will be a success without a railway.

Edward Maher, selector, near Gilgandra, sworn, and examined:—

- E. Maher. 1253. *Mr. Hassall.*] What are you? A selector.
- 29 Mar., 1898. 1254. Where do you live? Ten or 12 miles from Gilgandra, adjoining Berida on the west side of the Castlereagh River.
1255. How far back from the river? Four miles.
1256. You are practically out in the dry country? Yes.
1257. What area of land do you hold? 2,000 acres.
1258. What do you do with it? I use it principally for grazing sheep.
1259. Wool-growing? Yes.
1260. You do not send any fat lambs away to market, I suppose? No.
1261. Can you fatten sheep there pretty well? Yes.
1262. What do you do with the fats? Send them to Sydney, or sell them locally to the butchers.
1263. Have you a sufficient number to truck from Dubbo? Sometimes.
1264. What is the largest number you ever sent away? 800.
1265. Then you must have pretty good country? Yes.
1266. How many sheep will it carry? It carries about two sheep to 3 acres—that is about the average.
1267. You run about 1,600 sheep altogether? Yes; sometimes more, and sometimes less.
1268. How long have you been residing there? Twenty-two years.
1269. On the same place? Yes.
1270. I presume when you selected, you had this advantage, that you could select almost anywhere—there was not much settlement when you first took up your land? I think I was the second selector in the district.
1271. You have practically seen the settlement grow up around you? Yes.
1272. Did you not get more than 2,000 acres? No; I was hemmed in. At the time I selected, I could only get a conditional purchase of 320 acres, and before I could increase my area, I was hemmed in.
1273. Have you tried any cultivation in the back country? A very small portion.
1274. How do you find it acts? Splendidly.
- 1275.

1275. Then you have some good cultivation land on your holding? Yes; I have grown as much as 3 tons of hay to the acre in a good season. E. Maher.
1276. Have you cultivated wheat at all? It is wheat that I grow, but I make hay of it, because there is no market for wheat. 29 Mar., 1898.
1277. Have you had any experience of farming? Yes; I have been a farmer all my life.
1278. Having found that your land is suitable for agriculture, I presume if you had the means of sending your products away you would put a considerable portion of your land under the plough? I should do so if I only had the chance of getting the stuff away. It would pay me better than the work I am now engaged in.
1279. How far is your place from Dubbo? About 50 miles.
1280. How far would you be from the nearest point on the Warren to Coonamble railway? I think 40 miles. I am not acquainted with that district.
1281. Do you know anything of the country on the eastern side of the river, out towards the Warrumbungles? Yes.
1282. Did you have a good look around there before you selected? I did not know it then, but I have seen a lot of it since.
1283. Do you look upon that as good agricultural land? Yes, splendid land.
1284. As good as you have yourself? Just as good as you could find in the Colony—parts of it.
1285. So that you look upon the country on both sides of the Castlereagh as suitable for agriculture? Most certainly.
1286. Do you think there will be any great demand for the land when it becomes available? I believe that as soon as ever it is available every acre of it will be taken up. That has been my experience since I came to this district.
1287. Do the people who come and settle down here stick to the district pretty well? A number of people who came here about the same time as I did myself are here now. Some who selected have sold and others have remained.
1288. But there are a considerable number of the old hands still remaining on the land they selected years ago? Yes, a lot of them.
1289. That speaks well for the district? Yes; I think the district is as good as any we have seen, only we want an outlet.
1290. I suppose a railway coming in this direction from Dubbo to Coonamble would be of great service to you in enabling you to send away small lots of fat stock which you cannot send away at present? Yes. It would not pay me to incur the expense of sending 100 at a time.
1291. You might have perhaps a couple of hundred sheep pretty prime? Yes. The local butcher can certify that I sold him 100 sheep a short time ago; but it would not pay me to send them to Sydney.
1292. Had you been able to send them to Sydney you would have reaped the benefit? Yes.
1293. You think the whole of the selectors about here would use the railway as a means of sending their stock to market? I do.
1294. And they then would be able to realise better prices? Yes, we would have a better chance of a market.
1295. You heard the evidence given this morning? Yes.
1296. Can you, of your own knowledge and from your acquaintance with the district, corroborate the statements of previous witnesses? I can.
1297. Do you think the Warren to Coonamble railway would be no good to you? Yes.
1298. And an extension from Mudgee to Coonamble would not be of any great benefit to you? It would be a benefit to us, but not so great a benefit as the Dubbo to Coonamble line; that is the one that would suit us best.

George Park Barnett, grazier, South Balladoran, sworn, and examined:—

1299. *Mr. Roberts.*] How many miles is your place from Dubbo? Thirty miles north from Dubbo. G. P. Barnett.
1300. That would be about 10 or 12 miles from Gilgandra? Yes. 29 Mar., 1898.
1301. Is it on the road between Gilgandra and Dubbo? Yes.
1302. What area of land have you? About 7,000 acres.
1303. Is it all devoted to grazing? It is at the present time.
1304. Is any of the land suitable for agriculture? Yes.
1305. Why have you not devoted it to the growth of cereals;—seeing that it was within 30 miles of Dubbo it struck me that agriculture might possibly have paid you? The reason is partly want of means, and partly want of facilities for sending the produce to market. I am going to try it this year in any case.
1306. It is not because you doubt the capability of the soil for the purpose? Not at all.
1307. Do you regard it as fair wheat-growing country? Yes.
1308. Is it anything like as good country as that which we see around us? It is similar country to what you have seen about here—a little better, I think, for wheat-growing.
1309. Is there any wheat growing there? Yes; on land adjoining my place about 20 acres were cultivated last year, and the yield was 23 bushels to the acre. About 12 acres were devoted to hay, and the result was 2 tons to the acre.
1310. Was this produce sent to market? It has not been sent yet.
1311. You will send it to Dubbo, I suppose, where there is a mill? Yes, if there is a favourable market for it.
1312. How would you describe the country between here and Dubbo? It is timbered country.
1313. What is it fit for? It is more suitable for agriculture than for grazing; it is box-timber country, principally.
1314. Would it be expensive country to clear? Fairly expensive.
1315. What would probably be the cost per acre? It would depend upon the length of time it had been ringbarked—from 12s. to 30s. or £2 per acre.
1316. Is most of the land between here and Dubbo taken up? A good deal of it is not taken up.
1317. Would that be on account of the difficulties in the way of clearing and so forth, or because better land can be procured further north? A lot of it has not been open for settlement. What has been open for selection has been pretty well taken up.

- G. P. Barnet. 1318. Have you given the question of the construction of a railway to Coonamble much consideration? Yes.
- 29 Mar., 1898. 1319. Will the proposed line from Warren to Coonamble be of any use to you? No, not a bit.
1320. Would the suggested line from Dubbo to Coonamble go through your property? It would go through the stock reserve along my frontage on the Dubbo to Coonamble road.
1321. Is there much settlement in your neighbourhood? Yes.
1322. Even from the start a good many people would be served by that line if it were adopted? Yes; all along the route.
1323. Do you think the land in your district is of a sufficiently fertile character to warrant you in saying that if the line from Dubbo were constructed, and the land between here and Dubbo were available for settlement, such settlement would quickly take place? Yes; I have no hesitation in saying that.
1324. I understand you wish to hand in a document? As secretary to the Balladoran Railway League I desire to hand in a petition similar to that presented to the Committee last evening; it contains ninety-three signatures. I also hand in statistics collected in the Balladoran district giving particulars as to the area under crop, &c.—

RETURN showing the area of land, stock, and cultivation in the district of Balladoran.

Alienated Lands.	Crown Lands.	Number of Sheep.	Woolfor 1897.	Actual carrying capacity.	Area under crop 1896.	Area under crop, 1897.	Total yield, 1897.		Area for 1898.	Remarks.
							Hay.	Wheat.		
acres.	acres.		bales.		acres.	acres.	tons.	b'sh'ls.	acres.	
2,560	...	1,500	17	2,500	...	...	...	...	...
400	...	300	2	300	...	2	4	...	20	To be increased to 100 acres.
817	1,200	...	...	...	...	...
6,615	...	4,400	44	8,000	...	20	...	320	150	Will be increased to 500 acres.
3,840	...	3,300	49	4,500	...	...	...	...	...	Would cultivate 200 acres if line were constructed.
6,060	...	3,000	41	7,000	...	...	...	...	20	
2,560	2,000	...	3	5	...	100	1,000 acres intended for cultivation.
2,560	...	1,400	19	3,000	...	...	...	...	...	A railway would be an inducement to farm.
1,000	...	660	11	1,000	...	...	...	...	...	Clearing 50 acres for cultivation.
1,100	...	930	16	1,200	...	...	...	...	5	100 acres to be prepared for cropping.
800	...	220	...	1,000	...	...	...	...	15	
2,560	...	1,000	14	2,000	...	...	...	...	5	Intend cultivating 100 acres.
1,400	...	900	14	1,400	...	...	...	...	4	50 acres for next year; would increase with railway.
6,470	32,000	10,400	170	17,000	...	...	...	...	...	Would cultivate 1,000 acres if line were built.
3,817	23,160	10,000	123	14,000	...	10	20	...	120	Will further extend cultivation.
7,116	...	2,500	32	7,000	...	9	20	...	9	Cultivate extensively if line were built.
7,680	...	10,000	...	10,000	...	...	...	...	...
2,560	...	3,000	...	3,000	...	...	...	...	...
9,480	...	7,200	...	...	...	...	...	...	...
10,240	...	4,250	57	7,000	10	10	20	...	67	Total area intended for cultivation 400 acres.
2,560	15,000	3,000	42	5,000	...	...	...	...	100	Would cultivate 500 acres if line were built.
1,600	...	500	...	1,300	22	38	30	460	90	Will increase cultivation to 200 acres.
8,160	...	1,500	70	10,000	...	6	18	...	40	400 acres for cultivation.
2,560	...	1,600	21	2,500	...	3	5	...	4	Area of cultivation will be increased.
5,120	...	3,000	30	5,000	...	...	...	...	60	300 acres cultivation if line be constructed.
5,120	...	600	10	3,500	...	...	...	...	...	Railway would be inducement to farm.
5,000	...	1,500	21	4,000	...	...	...	...	12	Would extend area of cultivation with a railway.
109,755	70,160	76,660	803	124,400	32	101	122	780	821	

NOTE.—The foregoing statistics have been collected by the Balladoran Railway League, and are for that portion of the proposed line between the Coolbaggie Creek and the Marthaguy Creek, west from Bobberah, and due east from Bobberah to the Castlereagh River. The alienated land includes freehold, conditional purchases, and conditional lease lands. The Crown lands mentioned do not cover anything like the full area in that part of the district described above, a large portion of the Crown lands being attached to holdings outside the district. There are also unoccupied lands and reserves not specified, also the railway reserve, which is 2 miles wide, the Coolbaggie, and the Marthaguy Creeks. The figures with reference to the cultivation show that the 60 acres cut for hay yielded 122 tons, an average of a little over 2 tons per acre; 4 acres cut for grain yielded 780 bushels, an average of 19 bushels per acre.

There is an extensive forest reserve from which large quantities of sleepers are taken every year, besides bridge and other railway timber. There are about a dozen selectors along the road between Gilgandra and Balladoran.

1325. What freight do you pay to Dubbo? One shilling and sixpence a cwt.

Charles William Brown, grazier, near Dubbo, sworn, and examined:—

- C. W. Brown. 1326. *Chairman.* Where do you live? Twenty-two miles from Dubbo, on the north side of the Coolbaggie.
- 29 Mar., 1898. 1327. How far from Gilgandra? About 24 miles.
1328. In point of fact, you are half-way between Gilgandra and Dubbo? Yes.
1329. What do you do? Principally grazing; I have been farming.
1330. What area have you? 10,000 acres; it is a family holding.
1331. Are you close to the surveyed route of the railway? My land abuts on it.
1332. How far are you from the bridge over Coolbaggie Creek? Three miles.
1333. What sort of country have you got? Partly open box country, pine, oak, and a little ironbark in places.
1334. Is it suitable for the growth of wheat? Yes.
1335. Have you tried it? I have had about 10 acres in during the last seven years.
1336. How often has it been a failure? I have never had a failure. The smallest crop was $\frac{1}{3}$ a ton of hay to the acre. I saved a small portion for wheat, and I reckoned in a rough way that the yield was 25 bushels to the acre, approximately.
1337. What freight do you pay from your holding to Dubbo? £1 a ton.

1338. Of what value would the railway be to you? I should probably go on increasing my area under agriculture up to 400 or 500 acres. Saving the road carriage would enable me to do this. The railway would be a great help. C. W. Brown.
29 Mar., 1898.

1339. Have you any neighbours? Yes.

1340. Would they do the same? Yes; many of them are making preparations for cultivation.

1341. Some of the land in the vicinity of your holding is at present being prepared? Yes.

1342. Are you preparing any yourself? Yes; I have now 60 acres ploughed. I may add that I have grown fruit at my place to perfection—fruit of almost all kinds, and particularly apples, oranges, and quinces.

Ernest Joseph Wheble, grazier, Everton, sworn, and examined:—

1343. *Mr. Hassall.*] Where do you reside? At Everton, 4 miles from here, on the Marthaguy. E. J. Wheble.

1344. What is the size of your holding? Where I live I have 6,500 acres. I have another holding which I work in conjunction with that. One is all Crown land, and the other is secured. There are 32,000 acres of Crown land, and 6,500 acres of purchased land. I am holding altogether about 38,500 acres. 29 Mar., 1898.

1345. What do you use it for principally? Grazing sheep and a few cattle.

1346. Have you tried any agriculture? Only just a little for hay.

1347. Do you find the country good sound country for sheep? Yes.

1348. No disease? No.

1349. And what is about the carrying capacity? The purchased land will carry a sheep to the acre.

1350. In the event of any settlement taking place in the district when the land becomes available, what will be the carrying capacity of the land? It takes 2 acres to the sheep.

1351. So that on 32,000 acres leasehold you would carry about 16,000 sheep? Yes.

1352. Your trucking depôt, I suppose, is Dubbo? I have never trucked any, but that would be the depôt.

1353. Have you been residing here long? Seventeen years.

1354. What do you do with your fat stock? Any fat stock I have had I have sent to the boiling-down establishment at Dubbo.

1355. You have not tried the Sydney market with any fat stock? No.

1356. Of course you sent them by road? Yes.

1357. If the railway were here would you still send them by road? It would depend on the grass. If there were any grass on the road I should send them in; it does not take very long to do that distance.

1358. You have heard the evidence given this morning by the other graziers? Yes.

1359. From your seventeen years' experience of this district can you substantially corroborate that evidence? Yes, I can.

1360. As to the character of the country? Yes, except that I have never been out towards Bullagreen. I can corroborate the evidence given with regard to the country between here and Dubbo,

1361. And I suppose you can corroborate the evidence given that the Warren to Coonamble extension would be of no use to you? It would be of no use at all to me.

1362. Of what advantage would the extension from Dubbo to Coonamble be? It would enable people here to go in for farming.

1363. What advantage would it be to you? It would mean all the difference between my going in for farming and not doing so. I do not think it is possible without a railway to go in for farming.

1364. What proportion of your land is suitable for agriculture? Most of it.

1365. Is the purchased land suitable for agriculture? Yes, it is more suitable than the other; nearly the whole of it is suitable for agriculture.

1366. But you would not take up agricultural pursuits unless there were a railway conveniently situated? I do not think so.

William John Berryman, grazier, Curban Creek, sworn, and examined:—

1367. *Mr. Roberts.*] Where do you reside? Eight miles from Curban—up the Curban Creek towards the ranges. W. J. Berryman.
29 Mar., 1898.

1368. What area have you got? Nearly 12,000 acres.

1369. How many sheep do you carry? The whole of the area is not yet improved, but we have about 8,000 sheep at present.

1370. If it were improved would it carry one sheep to the acre? Yes, I believe it would.

1371. Do you intend in the near future to improve it so that it will carry that amount of stock? Yes, we are improving it every year—ringbarking more and scrubbing more.

1372. How long have you been there? Seven years.

1373. Would the line from Warren to Coonamble be of any use to you? It would be utterly useless to our part of the country. It would pay us better to send to Dubbo by team.

1374. How far distant would you be from the Warren to Coonamble line? As nearly as I can ascertain we should be between 30 and 40 miles away.

1375. How far is it from your place to Dubbo? Between 50 and 60 miles. On account of the extra railway haulage, by the Warren route, we should continue to make Dubbo our head-quarters.

1376. Is that where you get all your goods from now? Yes.

1377. Do you send your wool to Dubbo? Yes.

1378. How much do you pay for the carriage of it? For the last two or three years we have paid £2 a ton. We paid more previously.

1379. And with back loading you get all your goods from Dubbo? Yes. The winter roads are heavier than the summer roads. Back loading in the wool time is slightly easier than at other times. Back loading costs from £2 to £3 a ton.

1380. I suppose the rate of carriage would vary according to the weather and the state of the road? Yes; the winter rates are higher on account of the state of the roads.

1381. What advantage, if any, would the suggested line from Dubbo to Coonamble be to you? It would give us an inducement to grow wheat, for which we think our land is well adapted.

1382. Have you made any experiments in that direction? We have been cultivating a few acres for hay ever since we have been there, and the result has been very satisfactory.

1383.

- W. J. Berryman.
29 Mar., 1898.
1383. So satisfactory that if you had the means of carriage by rail, you would go in for agriculture? Yes; we have been used to agriculture in Riverina, and we would adopt it here if we had railway facilities, and we fully intend to do so.
1384. Have you had much experience in farming? Yes; we were farming for twenty years on land about 12 miles from Moama.
1385. It is very fine agricultural land down there, is it not? Yes, it is a splendid wheat district.
1386. How would you compare the land on your property with the land down near Moama? We consider it equally as good, and we have some land out towards the mountains better than any we had in the Moama district, especially for root crops. We have tried potatoes and maize there, crops which we could not grow on the Murray. It is a light sandy soil out here, and very similar for wheat-growing to the land we had in Riverina.
1387. What was a fair average yield on your farm in Riverina? I should think 15 or 16 bushels.
1388. And you think you could realise that here? Yes; we have no doubt about it, from what we have seen.
1389. Is the rainfall about the same in the two places? There is a better rainfall in this district; there is more summer rain.
1390. Is not the annual rainfall about the same? It is better here. The rainfall map shows an average of 15 inches for the Murray, and 22 inches for this district; and our experience during the last seven years has been favourable in regard to rainfall.
1391. Does the rain fall here when it is most needed, or does it fall at a time when it is of no use to a man growing wheat? Our little experience in growing wheat has been so successful that we consider it falls favourably to the growth of wheat.
1392. For how many years have you tried wheat-growing? I have grown wheat six years out of the seven, successfully.
1393. Without any failure whatever? Well, the year before last was a slight failure owing to the dryness of the season, which was general. The crop was much below anything we had previously.
1394. What was it? I should not think it went more than half a ton of hay to the acre.
1395. And that is the worst year you have had in six? Yes.
1396. Do you intend to put any more land under wheat at present? We are not likely to do so under present conditions, and not unless there are some facilities for getting it to market. We consider it would not pay to grow wheat under present conditions.
1397. How far are you from the surveyed line from Dubbo to Coonamble? About 12 miles.
1398. That distance would enable you to cart your wheat to the railway and get back again the same day? Yes, about that.
1399. Have you many neighbours? Yes, there are several selectors through that district.
1400. Do they all hold the same views with regard to the country as yourself? As far as I know, they all consider it is well adapted for wheat-growing.
1401. In your opinion, would there be a very large area under wheat soon after the railway came? I have no doubt of it whatever.
1402. Is there anything else? I hand in a petition similar to that presented from Gilgandra and Balladoran. Over 100 signatures were obtained from Curban towards Coonamble. The Gulargambone people all signed.

Timothy Marchant, farmer, Curban, sworn, and examined:—

- T. Marchant.
29 Mar., 1898.
1403. *Chairman.*] What area of land do you occupy? 1,000 acres.
1404. How much do you cultivate? About 75 acres.
1405. Where do you live? At Curban.
1406. Have you heard the evidence given by other witnesses with regard to the suitability of the soil in the district for the growth of cereals? Yes.
1407. Do you agree with it? Yes.
1408. How many crops have you had in at Curban? About twenty.
1409. How many failures have you had? I have not had a total failure, though the crop has been very light in several seasons.
1410. What freight do you pay from Curban to Dubbo? £2 a ton.
1411. What line do you approve of? The line from Dubbo to Coonamble. I came here with Mr. Berryman, as a representative of the Curban people, and therefore my view of the question is very much the same as that expressed by him.

James Alfred Berryman, Hillside, Curban, sworn, and examined:—

- J. A. Berryman.
29 Mar., 1898.
1412. *Mr. Hassall.*] You have heard the evidence given by your brother? Yes.
1413. Have you anything to add to it? I do not think I could add much, except about the surrounding country. I have travelled about it more towards the mountains, and I think there is a great deal of land there very suitable for agriculture; I mean in the direction of the Warrumbungles.
1414. Has much of that land been taken up? Yes; there are a number of selectors all round that country.
1415. What do they principally go in for? They combine grazing along with growing a little wheat, potatoes, and corn.
1416. What do they do with their crops? I think most of the wheat grown about Toorawheena goes to Coonabarabran, where there is a mill.
1417. What effect would the construction of a railway to Coonamble have upon these selectors? I think it would induce them to very much increase the area which they now cultivate.
1418. In the hope of getting the produce away to a central market? Yes.
1419. Would the Warren to Coonamble line be of any service to you? No; I think it would be quite useless.
1420. I presume the Mudgee-Coonamble line would suit them better than any other? Yes; the people out there would favour that line, I think, because it is nearer to them than Dubbo.
1421. There is a large extent of agricultural land towards the mountainous country, is there not? Yes; nearly the whole of it there is suitable for agricultural purposes.
- 1422.

1422. You refer to the land lying between the Warrumbungle Mountains and the Castlereagh River? Yes. Of course there are some patches of plain country that would not be so good; but the greater part of the land is timbered country, suitable for agriculture.

1423. How far distant would these settlers be from the Dubbo connection? I think from 15 up to 30 miles.

1424. Do you think they would be able to traverse that distance with their produce? I think so. I know they do in other parts. In Riverina, for instance, which is a large district, farmers cart their wheat 20 and 30 miles.

1425. And here you have this advantage: that the roads being practically level, farmers could bring a decent load in to truck at any point near Gilgandra, and, with a bridge across the river, there would be nothing to prevent them getting through? Exactly.

J. A.
Berryman.
29 Mar., 1898.

Stephen Chandler, farmer and grazier, Yalcogrin, sworn, and examined:—

1426. *Mr. Roberts.*] Where do you reside? At Yalcogrin, about 7 or 8 miles down the river from Gilgandra. It is on the eastern side of the river from Coonamble.

1427. What is the area of your property? About 16,000 acres.

1428. How much of it is secured? 3,526 acres.

1429. How many sheep do you run? I have not many sheep at the present time; I have been selling off.

1430. What are the capabilities of the property? It will carry about 14,000 sheep.

1431. Would it run nearly a sheep to the acre? Yes; just about that.

1432. Have you gone in for much farming? Not a great deal; I am getting 100 acres cleared, and I intend to farm.

1433. Have you had any experience in farming? Yes, a great deal.

1434. Where? In the Carcoar district, the Molong district, near Cowra, and the Forbes district.

1435. Do you regard the land in this district as equally as good for farming as that to which you were accustomed in the districts you mention? Yes; every bit, if not better.

1436. Do you intend to go in for wheat cultivation, whether the railway comes or not? Yes.

1437. Would it pay you to cart the wheat to Dubbo? It would pay better than growing wool, I think.

1438. What yield do you estimate to get from the land? The lowest yield I have had has been about 16 bushels to the acre. I should say from 16 to 30 bushels of wheat.

1439. For how many years have you cultivated wheat? Five years.

1440. How long have you been residing here? Between five and six years.

1441. Have you ever sent any wheat to market, or have you only grown it for your own use? Only for my own use.

1442. And you are satisfied now, from the experience you have had, that it will pay you very much better than sheep-farming? Yes.

1443. What will be the cost of the carriage from your place to Dubbo if you have to send the wheat to the Dubbo market? The carriage from here is generally about 30s. a ton.

1444. You would be able to grow wheat and make it pay at that? I think so.

1445. Do you have to pay a carrier, or do you employ your own team? I have my own teams, but 30s. a ton is generally what we pay for wool.

1446. In any case, whether you did the work yourself or employed others, the carriage would be worth 30s. a ton? Yes, about that.

1447. Do you regard this as an exceptionally fine district, destined to be one largely devoted to wheat-growing? I do. I think it is as good a district as any I have been in, and I have been in a good many. I produce four different samples of corn grown on my place on the bank of the river.

1448. Does it pay to grow corn? Yes; there is a sufficient local demand at remunerative rates.

S. Chandler.
29 Mar., 1898.

George Lithgow, farmer, near Gilgandra, sworn, and examined:—

1449. *Chairman.*] Where do you reside? Six miles north of Gilgandra, on the bank of the river.

1450. What are you? A farmer. I produce three pumpkins which I grew this season on my land, and also a vegetable marrow. The pumpkins weigh about 28 lb. each, and the vegetable-marrow weighs 17½ lb. I had a little wheat in last year, and it went 22 bushels to the acre. I have only been resident in the district three years.

G. Lithgow.
29 Mar., 1898.

WEDNESDAY, 30 MARCH, 1898.

[The Sectional Committee met at the office of the Land Board, Dubbo, at 3:30 p.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. CHARLES JAMES ROBERTS, C.M.G.

THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Warren to Coonamble.

William Makin Thomas, staff surveyor, Department of Lands, Dubbo, sworn, and examined:—

1451. *Chairman.*] How long have you been in the district? Nearly two years.

1452. What position do you occupy? Staff surveyor.

1453. You are acting to day on behalf of the District Surveyor? Yes.

1454. You know his views fairly well? Yes.

1455. And the information you will give to the Committee will be such as is disclosed by Departmental records and maps? Yes.

1456. In addition to your personal experience? Yes.

1457. If you look at the map before you, you will see a line marked "A" which represents the trial line as surveyed from Dubbo to Coonamble. It goes pretty well north from Dubbo, and a little west of Gilgandra on to Coonamble? Yes.

W. M.
Thomas.
30 Mar., 1898.

1458.

W. M.
Thomas.
30 Mar., 1898.

1458. You will see also a line marked "B." This line leaves the main north-western railway about midway between Dubbo and Narromine, crosses the Macquarie just below the junction of the Coolbaggie, runs almost direct north to the Marthaguy, crossing it about 2 miles east of Berida station, and meeting line "A" 9 miles further north? Yes.
1459. Then you will see on the map line "C," which leaves the main line 10 miles east of Narromine, running north-west until it crosses the Macquarie, and travelling thence 12 miles approximately parallel to that river, and about 3 miles distant from it, thence nearly due north crossing the Marthaguy, 4 miles east of Collie, and then going nearly due north and striking the trial survey, or line "A," approximately opposite Gulargambone? Yes.
1460. Then you will observe that line "D" on the map represents the proposed line from Warren to Coonamble? Yes.
1461. Taking line "A," will you describe the country, and give your views as to its pastoral and agricultural possibilities, and anything else you may think pertinent to the question. You might observe a margin of 10 miles on either side of the line? Line marked "A" leaves Dubbo near the township, and passes through 10 miles of good agricultural and pastoral country. Then for 15 miles the country is poor. On the eastern side it is in close proximity to a big State ironbark forest, into which it was proposed some years ago to construct a tramway for the purpose of carrying sleepers. At 36 miles from Dubbo the line enters what may be considered as the valley of the Castlereagh, having crossed the Marthaguy just before. From there to Coonamble it traverses plain country, rich pastoral land, and parallel generally to the course of the Castlereagh.
1462. Any of it fit for agriculture? All the land near the banks of the Castlereagh is fit for agriculture, and the red-soil plain and timbered land on the other side is also fit for agriculture. I am now describing the eastern side of the Castlereagh, and by the other side I mean the western side of the line. The area of agricultural land is practically only limited by the rainfall.
1463. How wide is the agricultural land on the western bank of the Castlereagh;—would you say a mile? The soil itself is fit for agriculture for 8 or 10 miles from the Castlereagh. Speaking approximately, the land suitable for cultivation is 10 miles wide from Gilgandra to Coonamble.
1464. Now take the other side of the Castlereagh—the eastern side; how wide would you say the agricultural land was there? To within 30 miles of Coonamble the cultivable soil is not more than 4 miles from the river.
1465. You get then into the open plains? You get then into poor land.
1466. Poor agricultural land? Yes.
1467. Good pastoral land? No; it is poor land. A large area, say half, of this poor land, when cleared, will produce medium crops. I am referring now to the land lying immediately north from Gilgandra, and a little east and west of a line north from that place.
1468. Going still down the river after passing Curban, what have you got then? Beyond Curban you have agricultural flats on the banks of the river 3 miles wide.
1469. And behind that? First-class pastoral country. In my opinion, a line passing a little west from Gilgandra, keeping on the western side of the Castlereagh down to Coonamble, would pass through and adjacent to as good an area of land for the cultivation of wheat as any I know in these districts.
1470. And on the eastern side, immediately north from Gilgandra, half of the country could probably be used for the growth of cereals? Yes. To the east of the country I have described there is good pastoral country.
1471. And to the west of the country you have described—that is to say, 8 or 10 miles back from the Castlereagh? That is first-class pastoral country.
1472. From the Marthaguy to Balladoran—what is your opinion of the country? That may be described as mixed country—about half of it good, and half fair, patchy country.
1473. To the east of line "A," (say) about the parish of Eurah, what is the country like? For 30 miles it is poor ironbark country with only patches fit for settlement.
1474. Going then towards the south, taking the southern boundary of the parish of Donnelly, and going straight on to the line due east, what is the country like? Very poor, except within half a mile of the Coolbaggie Creek.
1475. Caledonia, immediately adjoining the line, is what? Fairly good. Goonoo may be described as fair.
1476. And at the back of these two parishes eastward? Very poor.
1477. Therefore, a line going from Dubbo to Gilgandra, following the surveyed line, would have on the east of it, after leaving the road for a short distance, a considerable area of country only valuable for timber? That is correct.
1478. Now, go to the western side of the line;—what is your opinion of the country going down the Marthaguy, taking Bungey and south from Berida? That is good pastoral country, and there is a fair amount of agricultural country.
1479. Taking the parishes of Balladoran and Drillwarrina and parishes to the south, as far as the south boundary of Daley, what is your opinion of that country? Those four parishes are all poor with little settlement.
1480. What is the nature of the country? Ironbark, box, wattle, pine, oak, and wait-a-while. A great deal of it is ironstone, gravel, and white clay country.
1481. Is none of that, in your opinion, suitable for settlement? It is generally unsuitable for settlement.
1482. Would a fourth of it be suitable for settlement? A fourth of it would be suitable for the growth of cereals, but in no circumstances would it be likely to be first class.
1483. If it were first-class it would only be a patch? Yes.
1484. You are speaking now, keeping in mind a comparison with the class of country you get going down the Castlereagh? Yes, that which I described as first-class country.
1485. Taking line "B" marked on the map, and going west, do you see Eiraban and Kickabil;—then going down to the parish of Coolbaggie, and thence on to the line somewhere about Minore siding, will you describe that country, that is going down from Kickabil? Kickabil is fairly good for agricultural or pastoral purposes. Good genuine settlement is possible at Kickabil. Cobboco is more than half ironbark country; there is a good ironbark forest reserve there. The residue of the parish is fair country—fair to good for agriculture. Emogandry and Moonul are fair country. Coolbaggie is good country, thickly settled. Minore is very poor.

1486. And what is the country like going north from Kiekabil through Berida and through Merrigal to where you intercept the line going down the Castlereagh? Fair to good.

1487. Good for agriculture? Agriculture or grazing.

1488. You could easily get people to take it if it were thrown open? What remains of it will be taken immediately it is thrown open.

1489. You have marked on your plan also line "C," starting about two-thirds of the way to Narromine, and going in a northerly direction to Collie; will you describe that country up as far as Collie? That line runs for 18 miles parallel to the course of the Macquarie, and within about 3 miles of it, through good pastoral and agricultural country. Then for 4 miles it passes through scrub—fair country. From there to Collie it is first-class pastoral country, and fair agricultural country. In all probability, if the line were constructed marked "C," the Gilgandra trade would come to Dubbo, rather than go to that line.

1490. In your opinion, will there be any serious engineering difficulties on a line constructed approximately as marked "B" on the map? As far as I know the district there will be no engineering difficulties except that there is the river to cross.

1491. Is there much Crown land on line "A"? Within reach of the line—that is 10 miles on either side—there are about 100 square miles of Crown lands—640,000 acres. But the greater part of that is poor land—three-fourths of it.

1492. And the quantity of Crown land on line "B," not going beyond the Marthaguy? There are 90 square miles of country, or roughly speaking, one-half a million acres of Crown land. These will be available in 1900.

1493. What is the quality of this land? One-half of it is fair to good—agricultural and pastoral.

1494. What would the other half be? Poor country; it will produce light crops, and carry sheep.

1495. And as to the Crown lands on line "C"? The area is about 40 miles, or a quarter of a million of acres.

1496. The same proportion of good and bad? No; the greater part of that is good. Three-fourths of that is good for agriculture or grazing.

1497. And the other fourth? Inferior.

1498. Do you believe that all the Crown lands on line "A," 10 miles on either side, will be taken up? No; it will not. A large portion of it is forest reserve.

1499. Would 100,000 acres of the land you describe as fair to good along line "A" be taken up if it were thrown open? 50,000 acres would be taken up at once if the line were constructed, but I would not go beyond that in estimating the area which would be taken up immediately.

1500. What proportion of the half a million acres on line "B" would be taken up if it were thrown open? 300,000 acres of it—three-fifths of it.

1501. And the rest, perhaps, some day? Yes, some day.

1502. And the proportion on line "C"? The whole of it.

1503. Take line "D," which is the line from Warren to Coonamble, what is your opinion of the country? Line "D" passes wholly, or almost wholly, through plain country.

1504. What is your opinion of that country from a pastoral and agricultural standpoint? On the eastern side about one-third is fit for agriculture.

1505. How far from the line have you taken it? That would apply to 10 or even to 20 miles.

1506. And on the western side? It is chiefly pastoral country—the very best pastoral country. Not more than, perhaps, one-fifth of it is suitable for agriculture. In my opinion, although the land from Warren to Coonamble from a pastoral standpoint is first-class soil, I do not believe that more than one-fourth is suitable for agriculture. That line apparently traverses close to the eastern edge of the artesian water-basin. The bores much east from that line have failed to get water, while there are now four successful bores close to that line.

1507. Would you make a statement with regard to the rainfall? On the country east from the line from Dubbo to Gilgandra the rainfall is from 23 to 25 inches, the rainfall at Gilgandra being approximately 25 inches. West of that line, coming to Narromine, the rainfall is from 20 to 23 inches. Line "A" would run through country with a rainfall at one end of 22 inches, and at the other 25 inches. Line "B" would go through country with a rainfall at one end of 23, and at the other, 22 inches. That is a little to the east of Berida. On line "C" the rainfall would be from 21 to 23 inches. East of line "D" it would be 20 to 23 inches, and west of line "D," 18 to 21 inches. Coonamble is 21 inches. A fair average for line "D" would be about $20\frac{1}{2}$ inches.

1508. Taking a fair average for "B" and a fair average for "D," what would be the difference in the rainfall? About $2\frac{1}{2}$ inches in favour of "B."

1509. Is that vital? That opens up a big question. It is not so much the rainfall that affects agriculture as the period when the rain falls, or the manner in which the rain is diversified through the year. A rainfall of 20 inches is sufficient to produce splendid crops if you have it properly diversified. Country near the mountains where the ranges are, though the rainfall may not be very much greater than in the plain country, will give you better crops of wheat, because the rain is more constant. In my opinion, with the conditions obtaining in this district, the difference of $2\frac{1}{2}$ inches is vital to agriculture.

1510. If a line were constructed somewhere, as marked "B" on the map, would wheat-growing adjacent to that line, in your opinion, be a success? Yes.

1511. You have no doubt? I have very little doubt about it. I have given the question of rainfall considerable thought, and my opinion is that wheat-growing through that district will return good crops two years out of every three. I have gone through the rainfall averages for the months as taken at a number of the stations, and that is the opinion I have formed.

1512. What is your idea of a good crop? A good average crop—15 bushels to the acre. I hand in a brief report which I wrote, and also some statistics:—

Surveyor W. M. Thomas, to the Chairman of the Parliamentary Standing Committee on Public Works, reporting upon the character of the country and the settlement on proposed railway lines from Dubbo to Coonamble, Warren to Coonamble, and Mudgee to Coonamble, within the Dubbo district.

Sir,

Dubbo, 29 March, 1898.

In compliance with instructions from the District Surveyor of Dubbo, I have the honour to furnish you with the following report upon the character of the country and the settlement that will probably furnish the carrying trade for each of the proposed lines, Dubbo to Coonamble; Warren to Coonamble; Mudgee to Coonamble, within the limits of the Dubbo District, and until that source of probable trade becomes the same for all three proposed lines.

*1 (a)—G

The

W. M.
Thomas.
30 Mar., 1898.

W. M. Thomas.
30 Mar., 1898.

The plan furnished with Mr. Surveyor Mackenzie's report to you in December last, on this subject will, I submit, serve as an illustrative reference for this report.

1.—Dubbo to Coonamble.—The first 50 miles from Dubbo—The total area that will be drawn from on the eastern side of this proposed line is about 1,300 square miles. Of this area, about 300 square miles consist of good agricultural and pastoral land, undulating, and either now or before it was cleared, timbered with yellow box, apple-tree, belar, and white box; and situated in the valley of the Castlereagh and Talbragar Rivers, the Coolbaggie Creek and their feeders.

2. About 220 square miles are State forests reserves, chiefly ironbark. Into this forest, so large is the supply of valuable timber, the Railway Commissioners at one time proposed to construct a tramway from Dubbo, and the necessary land reservation was made for that purpose. This tramway, I understand, was to carry railway sleepers to the main line.

3. About 350 square miles are oak, pine, and wattle scrub, and open box country, fair grazing-land when ringbarked, and when cleared, capable of producing fair crops of wheat and hay.

4. The remainder is poor scrub country.

5. All the good land and part of the fair land within this area are now settled; the Castlereagh, Talbragar, and Coolbaggie frontages thickly so.

6. The rainfall is from 23 to 25 inches per annum.

7. On the western side of the 50 miles of proposed railway line, it will draw traffic from about 600 square miles. Of this area about 150 square miles are open pastoral and agricultural land. About 250 square miles are fairly good timbered agricultural land, and the remainder is poor sandy or ironstone gravel country.

There is one ironbark and pine forest of 12 square miles. The average rainfall is from 20 to 23 inches. On the good and fair country an average holding is about 2,000 acres.

8. Of the remaining 40 miles of this Dubbo to Coonamble line the country within the Dubbo district from which it can draw is chiefly first-class pastoral plain country interspersed with timbered and dry ground which forms shelter and refuge for stock in wet seasons.

It will carry a family to about 3,000 acres. The average rainfall is from 20 to 23 inches. The portion of the timbered and red-soil plain country that lies in the district of heaviest average rainfall within this area will probably be found suitable for agriculture.

9. Warren to Coonamble.—On the eastern side this line will draw trade from about 2,000 square miles, chiefly open and plain, red and black soil, myall and white-wood country, interspersed with belts and patches of scrub and timbered lands. The timbered country and the red-soil plains are suitable for agriculture. The remainder is first-class pastoral country, except about 100 square miles of poor scrub lands.

This area contains three successful artesian bores at Tenandra, Bourbah, and Coonamble respectively. The average rainfall is from 20 to 23 inches, and the area capable of supporting a family will average about 2,560 acres.

10. On the western side the subject line will draw from about 1,200 square miles of country almost wholly red and dark-soil plains separated by only narrow belts of timber, except where the monkey scrub runs through it about a mile wide. The average rainfall is from 18 to 21 inches. A small portion of this contiguous to a railway line may be cultivated, but probably the major portion will for many years be chiefly used for grazing for which it is eminently adapted. This area would appear to be wholly within the artesian water supply basin limits.

About 3,000 acres are requisite to support a family.

11. Mudgee to Coonamble.—About 100 miles from Coonamble this proposed line enters the Dubbo district and runs for 30 miles across one corner through generally fair to poor country, undulating and well timbered. The good land in this area is immediately adjacent to the banks of the water-courses, has an average rainfall of about 26 inches per annum, and is very suitable for cultivation.

For about 30 miles further the trial line lies outside the Dubbo district, and passes over rough and broken country. From thence to Coonamble, about 40 miles, it passes through about 15 miles of timbered heavy dark-soil, undulating country, and afterwards traverses rich pastoral plains very suitable for sheep-farming.

I have, &c.,
WILLIAM M. THOMAS,
Staff Surveyor.

Line.	Side.	Probable supply area for carrying trade.	Class of country.				Present class of occupation.	Settlement—average holding.	Average rainfall in inches per annum.	
			Good.	Fair.	Poor.	Forest reserves.				
Dubbo to Coonamble...	East— first 50 miles.	Sq. miles. About	Sq. miles About	Sq. miles About	Sq. miles About	Sq. miles About	Agricultural and pastoral..... Supply of valuable timber ... Fair grazing when cleared and ringbarked; capable of pro- ducing wheat and hay. Plain..... Pastoral and agricultural Timbered, agricultural	Acres. About	} 23 to 25	
		1,300	300				2,000
		350				3,250
Do do ...	West— first 50 miles.	.....	.....	.....	430	.....	} 2,000	} 20 to 23	
		600	150	.....	.....	.....			5,000
		.....	.....	250	.....	.....			2,000
Total.....	.....	.....	.....	.....	.....	12	} Timber supply.		
		1,900	450	600	630	232				
Dubbo to Coonamble...	Last 40 miles.	2,300	1,950	.....	.....	.....	} Portion suitable for agricul- ture? chiefly pastoral plain. Sheep farm	} 3,000	} 20 to 23
		.....	.....	150	.....	.....		
		.....	.....	.....	200	.....			
Total for whole line..	About 90 miles	4,200	2,400	750	830	232				
Warren to Coonamble	East ...	2,000	1,900	Small portion	.....	.....	} Chiefly pastoral; some agri- culture.	} 2,560	} 20 to 23
		.....	.....	.....	100	.....			
		.....	.....	.....	50	.....			
Do do ...	West ...	1,200	1,150	.....	.....	.....	} Sheep-farming and grazing ...	} 3,000	} 18 to 21
		.....	.....	Small portion	.....	.....		
Total.....	About 64 miles	3,200	3,050	.....	150	.....			
Mudgee to Coonamble	100 to 70 miles.	600	50	.....	.....	.....	} Cultivation	} 2,000	} 26
		100				3,000
		350				5,000
Do do ...	Last 40 miles to Coon- amble.	1,600	1,400	.....	.....	100	} Timber supply	} 3,000	} 18 to 23
		100				3,000
		100				5,000
Total.....	.....	2,200	1,900	200	450	100			

Line marked "B."	Side or length.	Probable supply area for carrying trade.	Class of country.				Crown land.	Present class of occupation.	Settlement—average holding.	Average rainfall in inches per annum.
			Good.	Fair.	Poor.	Forest reserves.				
Leaving main Western line somewhere between Dubbo and Narramine, and running northward approximately through parishes Coolbaggie, Emogandra, Cobboco, Kickabil, Milpuling, Bundobering, Berida, and joining line Dubbo to Coonamble, about 50 miles from Dubbo.	East ...	Sq. miles. 850	Sq. miles. 200	Agriculture and sheep-farming	Acres. 2,000	} 23
		.....	.....	350	.....	.....	.....	" " .....	3,000
		.....	.....	.....	300	.....	.....	Grazing.....	5,000
		.....	.....	.....	.....	.....	250	.....	.....
		.....	.....	.....	.....	.....	About 100	Timber supply.....	.....
	West...	800	650	.....	.....	.....	.....	Agriculture and sheep-farming	2,560
		.....	.....	100	.....	.....	.....	Sheep-farming	} 3,000
		.....	.....	.....	50	.....	.....	Grazing.....	
		
		.....	.....	.....	.....	.....	100	.....	.....
		1,650	850	450	350	100	350			

A comparison of the above figures with those in the previous table for the first 50 miles of the "A" line, viz., the trial line from Dubbo to Coonamble, will show that this "B" line is fairly well out in the good country; for while the proportion of fair and poor country on the eastern side of the "B" line is about the same as on the eastern side of the 50 miles of the "A" line, the proportion of such country on the western side of this "B" line is very much less.

1513. In your opinion will the ironbark country be of any value after the timber has been removed? Perhaps half of it will produce fair crops—an average, say, of 9 to 11 bushels. The other half, I am afraid, will produce nothing but ironbark.

W. M. Thomas.

1514. And a bit of grass? Well, it is question whether that grass is not even injurious to the sheep. It produces what is locally known as No. 9 bearing a black seed which injures the wool, and also the sheep's body.

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1515. Have you seen cereals grown in the ironbark country? I have seen some wheat crops grown on the edge of the ironbark country. To show the demand there is for land in the Dubbo district, I desire to state that for twenty-eight settlement leases offered in January last on Burraway and Euromedah there were 118 applicants. The average rental was 3½d. an acre.

Robert George Dulhunty, Inspector of Stock, Dubbo, sworn, and examined:—

1516. *Mr. Hassall.*] You are Inspector of Stock for the Dubbo district? Yes.

1517. How long have you been stationed here? Twenty years; but I have been here for forty years.

1518. You know the district thoroughly? Yes.

1519. You heard the description given by Mr. Thomas of the country on the three railway routes marked on the map "A," "B," and "C"? Yes.

R. G. Dulhunty.

30 Mar., 1898.

1520. Can you personally vouch for the accuracy in the main of the description given to the Committee? Yes; except that I think Mr. Thomas very much underrates the country on line "A." A great part of the ironbark country which Mr. Thomas calls useless is now being cleared and put under crop, and it is growing very good crops. I know from personal knowledge of one crop that has gone over 25 bushels to the acre. This was from country that had been cleared from ironbark. It is not actually in the ironbark country, but on the edge and with ironbark on it.

1521. Then it amounts to this, that the area of country described by Mr. Thomas as ironbark country contains, in your opinion, fairly good belts of country not so heavily timbered? Yes.

1522. And, therefore, you are of opinion that a larger area of available country might be embraced in the description given by Mr. Thomas? Yes, a very much larger area. All through that ironbark country there are large belts of box country.

1523. The country you allude to is probably box and ironbark? Yes; there are large patches of box all through it, and wherever the box is the country is good for agriculture.

1524. In your opinion a considerable area of what Mr. Thomas termed ironbark country will be available for settlement? Yes; I am quite sure of it. I am satisfied that there is not an acre of it that would not be rushed to-morrow if it were thrown open, and there was a probability of a line being built there.

1525. With regard to line "B," can you corroborate the statement made by Mr. Thomas, that it contains more available country than line "A"? Yes, I think so; but there is some very poor country to get to it from Dubbo.

1526. No worse than that on line "A"? Yes—no good at all. When you get near the river it is good; but the ironbark hills in that locality are no good; they are all rock.

1527. On line "B" what is the country like between Coolbaggie Creek and Kookaburra Creek? It is very thick scrub; but it is not bad country. It would be good agricultural land if it were cleared.

1528. Good soil? Yes.

1529. Would "B" be a better line than "A," in your opinion? I think there would be better country on it right through.

1530. Then that practically corroborates the statement of Mr. Thomas with reference to the character of the country on the various lines; you agree with his description of the country on line "C"? Yes.

1531. Do you agree also with Mr. Thomas' description of the country from Warren to Coonamble? I think Mr. Thomas has a liberal idea of the agricultural land on that line? It is some of the best pastoral land that I know of in the Colony; but I think there is very little agricultural land there.

1532. I suppose you might describe the line from Warren to Coonamble as passing through first-class fattening country? Yes, first-class.

1533. Is it sound? Yes; it is some of the best pastoral country I know of in Australia.

1534.

- R. G. Dulhunty.
30 Mar., 1898.
1534. Would you class it as first-class pastoral country with very little agricultural land along the route? Very little, I think.
1535. Practically, I suppose, till you strike the river near Coonamble? Yes.
1536. You might just describe lines "A," "B," "C," and "D," in your own words, as concisely as possible? If I were going to build a line myself from Dubbo, I would build it to Gilgandra by line "A." There is no doubt that line "B" would go through very good country, but the difficulties of building it would be greater and it would not be so good a paying line. "C" is the same. When you get down to "D," the country below that is hemmed in by the Mole and the Macquarie, and there is not much settlement down there.
1537. And that settlement would drift into Warren? Yes. The settlement can never be very great there, because there is a large piece of country that is all water—all swamp—and it can never be other than pastoral country. Pastoral country is no good to a man unless he has a great deal of it. On line "A," as regards a great part of the land, 320 acres will support a man, but down the Mole you must have 5,000 or 6,000 acres, for you can only grow sheep there.
1538. Then lines "A," and "B," are practically similar except that "B" carries more available land for settlement? More good land.
1539. Line "C," you think, is too far west, and draining the traffic which would go towards Warren; and you think the line from Warren to Coonamble passes through, essentially, pastoral country? That is so.
1540. And must be dependent upon pastoral products for the traffic that goes through it, with back loading for the stations? Yes. Line "A" would drain a large piece of country up towards Cobberah, and up the Castlereagh towards Coonabarabran. That traffic would all come to line "A," and it would come from good country.
1541. Has there been any marked increase in the number of stock in the district during late years? There has been a very marked increase in the number of holders. There is a decrease of stock this year all round. We have just gone through a dry season. But with regard to the number of holders, in the last four or five years the names in my book have increased from about 600 to 1,300. They are all owners of land and stock.
1542. Do you find there is a good demand for any land thrown open for pastoral or agricultural purposes? There is a tremendous demand. Every Land Court day here, when there is any land offered, there are thirty or forty applicants for every piece.
1543. In travelling about you would be able to form a correct opinion as to the demand for land? Yes.
1544. Even although no railway were constructed, I presume the demand for land would still continue; but, in the event of railway construction, do you think the demand would be largely increased? Very largely increased. I am satisfied that every acre of land on Line "A," which Mr. Thomas describes as so poor, would be taken up instantly if it were open.
1545. Do you know whether there are any arrivals from other colonies coming into this district? Yes, a very large number from Victoria. Only the other day a farmer from South Australia bought a property just beyond Coolbaggie, and he is clearing 200 acres with the intention of putting it under crop, and this is where it is said that the land will not grow wheat.
1546. I suppose the district is sound and free from disease? Yes. There has been some anthrax during the last year or two, but it has been treated by Pasteur's system, and they are keeping it down. We have had more disease this year than we have had for a good many years.
1547. With regard to the demand for land, is there not a good deal of Crown land within 10 miles of Dubbo available for settlement? I do not think so, unless it is poor land between here and Minore which no one would have.
1548. What about the land on the road between here and Gilgandra? There is a good deal of land there. A great deal of it is in the travelling stock reserve.
1549. But within 10 miles of Dubbo? Yes, there is a good deal of land all round, but I do not know much about it.
1550. Do you think, if land were available within 10 miles of the railway, it would be taken up for agriculture if it were suitable for that purpose? I am quite sure of it. I do not think there is much Crown land available within 10 miles of Dubbo on the line to Gilgandra.

James Andrew Ryan, financier, Dubbo, sworn, and examined:—

- J. A. Ryan.
30 Mar., 1898.
1551. *Mr. Roberts.*] What are you? I am a financier, living in Dubbo, but I have been a resident of the Dubbo district for thirty-two years. I have been a selector. I have lived upon the land and worked on it for a number of years in the neighbourhood of Dubbo.
1552. Do you still reside on your selection? No, I let it. I get a rental for my land now.
1553. Where is your land situated? Between 5 and 6 miles from Dubbo.
1554. Do you desire to make a statement? I think it would be desirable in the interests of the country that railway connection with the Castlereagh River should be at Dubbo.
1555. Could you compare the three lines;—Warren to Coonamble, Dubbo to Coonamble, and Mudgee to Coonamble? In my opinion, a line equal in length to the distance from Warren to Coonamble, if run out in this direction, would pay better than a line from Warren to Coonamble—even if the railway were just built to that point and no further.
1556. You prefer the Dubbo route? Yes; from my knowledge of the country in both places, and my opinion of what the settlement of the future will be. It will be farming and grazing combined. The produce from the land will be wool, stock, fat sheep, or cattle and wheat. Hay can be grown there; but it is so far from the sea-board that it will not be as profitable as wheat or stock. I know that this country is suitable for that kind of combined holding. With regard to the character of the country, I have heard the evidence of Mr. Thomas and Mr. Dulhunty, and from my knowledge of it, I can say that the land is nearly all arable land. Land that was rejected years ago by the graziers as being worthless, is the very land that is now being taken up for agriculture and giving the best returns. It was only a question of capital and the expenditure of money. In the old times the holders of the land would not spend money to improve it. But the class of people who are coming here now are spending money to improve the land, and are getting returns which could not be got from the plain land; that is, they are getting better returns from their labour than on the grazing land. The character of the soil through here is largely volcanic. There is only a very small portion with sandstone outcrops. All this land is arable, and, if the timber is removed from it, will give a good return to those who work it.
- 1557.

J. A. Ryan.
30 Mar., 1898.

1557. What is the area of the land you selected? My brother also selected, thirty-two years ago, and our properties have been worked together, embracing in the one area about 1,600 acres.
1558. Is it all improved? Yes; it is fenced and partly cultivated.
1559. Where is it situated? Near the Brocklehurst post-office; it fronts the Macquarie River. I let a farm the other day on which there are about 400 acres of timbered land, and the tenant intends to clear the whole of it, and put it under crop. Hitherto it has been used as a grazing property.
1560. How many miles is it from Dubbo? Between 5 and 6 miles, on the road to Coonamble. The surveyed line goes through the property.
1561. Did you farm the land there yourself? Yes, some years ago; but there was not a good market here in those days for wheat. I did grow wheat. That is over twenty years ago. The tenants now go in largely for farming, and get heavy crops.
1562. What do they grow, and what do they get per acre? They get from 20 to 30 bushels of wheat to the acre, and up to 4 tons of hay an acre.
1563. How much have they under crop? One man cultivates 100 acres. This year he is going to put in a much larger quantity. Another tenant has cultivated about 30 or 40 acres; but he was a carrier, and did not work his farm all the time. I may also state that a pre-lease which I had several years ago, and for which the Government charged me £2 a section for rent, has since been taken up as a conditional purchase and farmed, and this year the holder has taken 32 bushels to the acre off land from which ironbark timber and pine were taken. That is adjoining my land at the Mogruguay. This farmer advertises his seed wheat for sale. That proves that this land, on which ironbark grows, where the soil is good, will be more productive after the timber has been taken off. If the railway were built north from here it would give us an opportunity in Dubbo of having railway sidings for any industries that might be established, such as flour mills and boiling-down works, and dairy factories requiring access to the railway. At present we have no chance of getting sidings. When we built the boiling-down works we had to go on a hill on the other side of the river, and the water supply was very expensive. We had to go to great expense in laying down pipes from the town supply. We cannot get water on the other side of the river by sinking. We have to depend on the river supply, and any works in Dubbo in the future must depend on the river.
1564. Your property being only a short distance from Dubbo, your tenants would probably not use the railway? No, it would be of no benefit to them. As far as I am personally concerned it would be no benefit to me.
1565. Do you know the country all the way from here to Coonamble—you are speaking, I suppose, from your knowledge of the country? Yes; and my knowledge of the people and their desires and ambitions.
1566. And owing to the adaptability of the soil for agriculture, you think the Dubbo-Coonamble connection would be far better in the interests of the country than the connection at Warren? Decidedly.
1567. That is what you wish to impress upon the Committee? Yes; that the Dubbo line would be better in the interests of the State. There is another thing:—In the future, no doubt the railway will go beyond Coonamble and extend to Walgett, and, perhaps to the Queensland border. Such being the case, the question of where the junction of such an important line should be, is a very serious one for the Railway Department—whether it would not be better to have the junction at Dubbo, a town with an unlimited water supply, and all the advantages of a good location, or to make the junction at a place like Nevertire, out on the dry plains, where they have no water, and no shelter of any kind. The junction town of such an important line would necessarily carry a comparatively large population, and its location, therefore, is a very important matter. In view of these considerations, I think, Dubbo will be a far more desirable place than Nevertire. I feel sure, also, that the settlement along the Dubbo line would be much closer than would be the case between Warren and Coonamble.
1568. How long a lease did you give to the tenants of your land, situated within 4 or 5 miles of Dubbo? Five years.
1569. Have they the option of renewal? They generally take the land for a five-years term, and carry on the tenancy from period to period.
1570. They have the option of renewal? No.
1571. When did you first lease the land? Over ten years ago.
1572. For how long was the lease? Five years. A second term will run out at the end of this year, and the tenant is arranging for another five years.
1573. And did you get an increased rent from it? A little increase this last time. On condition that he is allowed to cultivate more land the tenant has promised to pay a little more rent. I limited him before to grazing.
1574. Is there a clause in the lease providing for giving the tenant the option of renewal, or is it left entirely to arrangement? It is left entirely to arrangement.
1575. You can get either a higher or a lower rent, according to circumstances? Yes. If the line from Dubbo were constructed, I think branch lines would be taken to serve other districts. Branch lines would probably be constructed to tap such country as Toorawheena and Gummin Gummin, and also into Collie on the Marthaguy. That is, when population became thicker.
1576. Is the traffic on the Coonamble road from Dubbo increasing from year to year;—is there any great traffic? I know the traffic has increased very much from the settlement that is going on, even without the railway, and I am sure it will increase tenfold if there is a railway there to carry the stuff to market, because the land in this part is very prolific.
1577. What opportunity have you of judging of that? By travelling over the ground.
1578. You are constantly travelling over the ground? No, but I have travelled at various times. I meet the people from there and know what is going on.
1579. You have formed the opinion that traffic is increasing between Coonamble and Dubbo? Yes. With regard to the valuable timber supplied on that line, it is a very good item in the construction of a railway, because timber could be brought on to the line and supplied to all parts of the Colony.

THURSDAY,

THURSDAY, 31 MARCH, 1898.

[The Sectional Committee met at the office of the Land Board, Dubbo, at 10 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. CHARLES JAMES ROBERTS, C.M.G. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Warren to Coonamble.

William England Morgan, Editor, *Dubbo Despatch*, sworn, and examined:—

W. E. Morgan.
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1580. *Chairman.*] How long have you been resident in this district? For thirty-two or thirty-three years.

1581. You are aware of the various schemes to connect Coonamble with the railway system of the Colony? Yes.

1582. Have you formed any views with regard to the matter? I should like to make a statement giving a history of the agitation in connection with the railway to the north-west. So far back as 1874 and 1875 an agitation was started at Coonamble for the purpose of having constructed a travelable road between here and Coonamble, the commercial traffic having become so great that the road was unable to carry it, and the storekeepers and settlers along the route complained of the delay in the transit of goods. This agitation was continued until 1878 or 1879, when, on the resignation of the Farnell-Fitzpatrick Government, Sir Henry Parkes came into office, with Mr. (now Sir) John Lackey as Minister for Works, and Mr. Watson as Colonial Treasurer. A deputation from Coonamble then waited upon Mr. Lackey, and he remarked that, in view of the approaching completion of the Western line from Orange to Dubbo it would simply be a waste of money to macadamise the road between here and Coonamble, because in the natural course of events it was absolutely certain that a railway would be built from Dubbo to Coonamble. Consequently, beyond allotting a few hundred pounds for the purpose of repairing very bad places on the road, Mr. Lackey would not do anything. But he directly promised that, the moment the exigencies of the public business allowed, he would place before the Cabinet a proposal for the construction of a railway from Dubbo to Coonamble. When Mr. Watson, in 1881, just previous to the defeat of the Parkes Government, on the land measure brought in by Sir John Robertson, made his Financial Statement, he told the House that, the Government were about to put before Parliament a Loan Bill for the construction of certain railways, and amongst these railways was one from Dubbo to Coonamble. Political events did not allow this to be carried forward. The Parkes Government was defeated, and the Stuart Government came into office. The agitation was renewed, and Mr. Wright, who was then Minister for Works, included in his railway policy, the construction of a line from Mudgee to Coonamble. The line from Wallerawang to Mudgee was then, and I believe is now, a non-paying line, and more a burden than a support to the railway system; and, in order to make that line profitable, it was determined by the then Government to extend it from Mudgee to Coonamble. At that time, I might remark, the Mudgee line had not developed the character it has since earned of being a very dangerous line, unfit to carry any heavy traffic; we had had very dry seasons, and no slips, or anything of the sort had occurred to interfere with matters. We in Dubbo, as well as the people of Maitland and the Hunter valley and the Northern districts generally, and the majority of the Coonamble people, objected to this proposal. There was a very warm agitation throughout the Western districts generally, and also in the Northern districts, with the result that when the matter came before Parliament the whole of the Members from the Western and Northern districts combined together with the other Members of Parliament who understood the matter, and pointed out very clearly that, if a railway were built from Mudgee to Coonamble it would confine the whole of the Castlereagh people—and the objective point of the railway was Walgett—to one market, the Mudgee market; whereas if the railway went from Dubbo to Coonamble, the people of the Castlereagh and the Barwon—that is, supposing the railway were extended to Walgett, and that was never a point of our agitation, for we always held that the traffic of Walgett, the Bree, Culgoa, and the back creeks subsidiary to the Walgett district, should go to Newcastle, that being the nearest port, as well as for the purpose of maintaining the old trade relations which, from the settlement of that country, had existed between the Hunter valley and these particular districts, the whole of that country north and north-west of Walgett having been originally settled by Maitland people; in fact, many stations there are now held by people who came from the Macdonald River—the head of the Hawkesbury—and the Hunter valley would have a choice of markets and be able to get their supplies from well-known agricultural centres. We pointed out that a railway running from Dubbo to Coonamble would be, according to the surveyed line, much shorter than a line from Mudgee; that it would cost infinitely less; that the cost of construction, at the prices which then ruled, would be, for the last 40 miles of the route, £4,000 per mile as against £9,000 per mile, and also that all the markets of the west—Dubbo, Orange, Carcoar, Bathurst, and other places—would be open to the people of those districts. As I have said, the proposal was defeated. The Stuart Government, like most Governments when they are defeated, got their backs up and would not do anything further in the matter. Then there were political convulsions, caused by the discovery of what is now known as the “Dibbs Deficit,” and matters ended by Mr. Lyne coming in as Minister for Works, and promising a deputation that waited upon him that the request of the Dubbo and Coonamble people would be favourably considered, and at the opening of Parliament the Governor’s Speech contained a paragraph announcing that in the railway policy which the Government intended to place before Parliament would be included a line from Dubbo to Coonamble. It is not necessary to tell how the matter never went any further. There was an internal disruption of the Government, and the whole thing went smash. We still kept on the agitation, and Mr. Bruce Smith, who subsequently became Minister for Works, said he had had the whole question considered, but, as railway construction was not a matter to be dealt with in any patchwork or piecemeal fashion, he would call for a report from an experienced officer on the whole question of railway construction in the north-west. That brought out the report of Mr. Jones which the Committee have before them. At this time, and, in fact, for a considerable time later, there was no talk of the extension from Nevertire to Coonamble. That simply cropped up after the construction of the cockspur line from Nevertire to Warren. Then the financial crisis occurred, and all agitation regarding railway matters calmed down, because people very naturally and sensibly thought it would be almost superfluous if not nonsensical for any Government to build

build fresh railways when there was no possibility of their being able to borrow the necessary money at anything like a reasonable rate of interest. The commercial disturbance had caused such an amount of distress and unrest that, notwithstanding the excellent state of the credit of the country, there was very little hope of getting an investor to lend his money at a rate of interest, which, through the exertions of Sir George Dibbs, had been reduced from 5, originally, to 4, and then to 3½ per cent.—now, I believe, it is 3 per cent. However, Mr. Young came into office, and we waited upon him on several occasions; but his utterances were like those of the gentleman in "Pinafore"—like all official utterances—unanswerable—and at the same time inscrutable. We never could understand what he meant. But he promised one thing, at all events—that before any final steps were taken with regard to railway construction he would place one line before Parliament for submission to the Public Works Committee. We then said, as we say now, that so long as he offered us the opportunity of allowing the Public Works Committee to inquire fully, not only into that particular route, but into all alternative routes, we would be perfectly satisfied to let the case stand on its merits. At first Mr. Young thought it was impossible for him to do that—that the Public Works Act would not allow him that opportunity. It was pointed out to him that it had been done in a certain case, and he made a promise to that effect. Subsequently—last year during a visit of the Minister to Dubbo—we renewed our request, with the result that the Member for Dubbo conveyed a request to the Chairman of the Public Works Committee to hold a sitting here for the purpose of taking evidence with regard to these particular lines. I might point out that in anything we are doing with regard to this matter it would be ridiculous to say that there is not a certain amount of local feeling. But apart from that our views in connection with this railway question—I certainly speak for myself—are induced more by a desire to see constructed the line that will do the greatest good to the greatest number, and give the largest return possible to the public revenue. With regard to the Warren to Coonamble line, the Dubbo to Coonamble line, and the proposed line from Mudgee to Coonamble, we recognise that whatever railway is made, it will not be a railway for to-day, it will not be a work for to-day, it must be a work for some time to come. When a railway does not suit, as the experience of the Mudgee line unfortunately proves, you cannot tear up the rails, and let it stay at that; the railway has to go on for all time, either a burden or a support to the railway system of the Colony. Our contention is that the Dubbo-Coonamble line is the best, notwithstanding that, compared with the Mudgee to Coonamble line, it may perhaps be the longer one from the metropolis; that it will serve the greatest number, that it will serve a large part of the country that would be served by a Mudgee line, and that if a Warren to Coonamble line is constructed a large tract of country which must eventually be served by a railway will be left out of consideration. A reference to the map will show that the Warren-Coonamble line runs at right angles to settlement, whereas the Dubbo or the Mudgee-Coonamble line would run parallel with settlement. The country between Warren and Coonamble is as yet almost in a virgin state. Settlement is mostly of a pastoral character. There are no townships with the exception of Bullagreen and Bourbah, if they can be dignified by that name. There is really no settlement there. It is a tract of plain country fitted principally for pastoral purposes, and the distance is 62½ miles. The Dubbo to Coonamble line, though on account of the extra 32 miles it may cost more money for construction, will give a better return to the Department. As long as I have been in the district, as long ago even as forty years, intimate trade relations have existed between Dubbo and Coonamble, and the country that will be served by this railway, including the Merri-Merri and the Marthaguy. If a railway were built from Dubbo to Coonamble, at no part of the route from Warren to Coonamble would the people be above 30 miles away from railway communication. The majority of them would be closer—those towards Coonamble and those towards Warren. But if a railway were built from Warren to Coonamble the people of Gilgandra and Mendooran and those who would be served by the line from Dubbo to Coonamble would be shut out from railway communication altogether. They would still come to Dubbo. They would not go to the Warren-Coonamble line because of the extra haulage and freightage on the elbow bend *via* Nevertire to Dubbo. A great deal of this traffic which is looked forward to by the Railway Department, and has unquestionably been considered by Mr. Harper in his report to the Commissioners, would come to Dubbo by road.

1583. Anywhere north of Bourbah it does not matter which line is built? No; the traffic from Bourbah, or say from Gulargambone, would come to Dubbo in preference to going to the Warren line; and south of those points towards Dubbo, towards Curban and Gilgandra, the traffic would necessarily come to Dubbo, because the distance would be shorter, and the railway freightage would be less. The railway from Dubbo to Coonamble would serve a purpose which a railway from Mudgee to Coonamble would serve. That is to say, Gilgandra is only 20 miles at the most from Mendooran, and in a straight line, I think, about 15 miles from the mountains; so that this railway would not only serve what we consider the Castlereagh district—that is, Gilgandra, Collie, and those places—but it would also tap the resources of some of the finest agricultural country in the world, running along the foot of the Warrumbungle Mountains, and towards Coonabarabran. That is a district which it would be impossible for the Warren to Coonamble line to serve. With regard to the traffic between Coonamble and Warren, which has developed somewhat largely during the past few years, I think it necessary to make an explanation. The traffic consists principally of wool, and the history of its diversion is very simple, and rather suggestive:—A few years ago there was a Carriers' Union in Dubbo, and I do not think it is necessary to tell any of you gentlemen that wherever there is a union of that character there is generally friction immediately following between the parties to the contract. Friction occurred, and a strike on a small scale was set up, with the consequence that Mr. Tobin, of Wingadee, who sends away 1,000 or 2,000 bales of wool, and one year sheared 250,000 sheep, instead of sending that wool through Dubbo, as had been the custom from time immemorial, to show that he was perfectly independent of the Carriers' Union, sent it on to Warren. It was a dry season, and it would have been impossible to have sent the wool to Warren, if it had been a wet season. However, that has nothing to do with the railway, because the railway would carry the wool every year. I am only mentioning it to show how the diversion of traffic occurred—that it was not because Nevertire was the nearer railway station (for in that respect there was really very little difference, as it was only a matter of a few miles) nor was it because the road was better travelable or the carriage cheaper, but simply because of friction brought about between the residents of the district and the Carriers' Union. In the whole of this agitation we have never had the objective point at Walgett. We think that Coonamble should be the terminus of the railway, and

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and that Walgett should be the terminus of a railway from Nanah, tapping the country north-west of the Barwon, towards the Queensland border, and gathering up all the traffic which must follow from the increasing settlement on the fine grazing lands along the various creeks which intersect that country, between Walgett and Goodooga. With regard to the Mudgee line, we have really given it very little consideration, for the simple reason that we think the stupendous and costly character of the work in the present circumstances of the country will not warrant its construction. We admit that, so far as reaching the metropolis is concerned, the route from Coonamble *via* Mudgee is shorter. At the same time, in order to reach Coonamble from Mudgee, 146 or 147 miles of construction are necessary; and if I remember correctly, the estimate of Mr. Whitton, or the officers who made the survey in the first instance, for the first 40 miles of the route from Mudgee to Cobar was about £9,000 a mile, though probably it could be built cheaper now. We have not for a moment considered the possibility of that line, because a very high authority in railway matters lulled whatever alarm we might have felt with regard to it by informing me on one occasion that it was quite unnecessary to consider the line, because, as the line from Wallerawang to Mudgee was a white elephant, the Railway authorities—I do not mean the Construction Department, but those who carry on the existing lines—did not want to add another white elephant to it. That, of course, is only a figurative expression. We certainly have never considered the Mudgee line, but we have always held that a line *via* Dubbo would be the cheapest and best means of reaching Coonamble. I want to particularly impress upon the Committee that we make Coonamble the objective point. Mr. Alexander Wilson, formerly a Member of the Legislative Assembly, wrote to one of the newspapers the other day pointing out that it was possible to connect the Northern and the Western system by a cross-line from Gilgandra to some place called Curlewis, a few miles north-west of Werris Creek, on the North-western line. I think it would be as well to state that a former Public Works Committee had before them some years ago the question of the extension of the Mudgee line as a first section towards Coonamble, in connection with the proposal, I think, by the Parkes Government, to extend the railway from Mudgee to Gulgong. A report is in existence, and it will be found that the Committee then declined to recommend that line in view of future contingencies—I think that was their reason; that other lines had to be considered, and it would be a very foolish thing to build a few miles of railway as proposed without considering the whole question of railway construction in the west and north-west.

William Mortimer B. Dayrell, manager, Co-operative Flour-mill, Dubbo, sworn, and examined:—

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1584. *Mr. Hassall.*] How long have you been in the district? Over thirty years.
1585. You have seen the progress and development of the district since that time? I have.
1586. Can you give the Committee any information as to the progress of agriculture in the district—what it was, say, ten years ago, what it is at the present time, and what are the prospects of its ultimate increase? Ten years ago there were not 30,000 bushels of wheat grown in the district, and this year I suppose there have been fully 400,000 bushels. That is an approximate estimate, judging from what has left the district, and what still remains. That embraces the district around Dubbo, including Narromine, but not going as far as Gilgandra, and under the mountains to Coonabarabran, where there is a good deal of wheat grown.
1587. That wheat has been sent to the Coonabarabran mills for some years past? Yes; and they get it for a very small sum, inasmuch as the carriage is very heavy from Coonabarabran to the railway. We are getting some delivered now. Yesterday we had 6 tons in from Coonabarabran way.
1588. Judging from your experience of the wheat produced, do you think this district is suitable for growing good sound grain of marketable quality? Undoubtedly.
1589. Such as would sell in any market of the world? Yes.
1590. Of what quality is the flour made from it? It is very good. We can always top the market in Sydney. We have just finished delivering several hundred tons to Mr. William White and others.
1591. Your principal supplies at present are drawn from the immediate vicinity of the town, or within a radius of 30 or 40 miles? Between Geurie and Nyngan.
1592. Where is the principal market for flour? West from here.
1593. What portion of the Colony west is supplied? Every town along the line—Nyngan, Cobar, Coolabah, Byrock, and Bourke; every town in the west that is reached by rail.
1594. I presume you supply numerous orders in that direction? Yes; we truck every day.
1595. And I presume the flour is sent even still further? Yes; it goes away to Queensland.
1596. Does your demand exceed your supply? The company has not been long formed. This is the first season during which we have been able to run night and day. We have no difficulty in placing our flour without sending any travellers out.
1597. In addition to your western market you also have the Sydney market available? Yes.
1598. So that you can compete successfully down there? Yes; as long as we have wheat on the spot.
1599. I understood you to say that you do not have much wheat coming in from Gilgandra, Mendooran, and down there? Not a great deal; we have had about 300 tons.
1600. Do you get any wheat in from between here and Gilgandra? Yes.
1601. Of what quality is that? Very good.
1602. Will it compare favourably with any other wheat in the district? Yes.
1603. And make equally as good flour? Yes.
1604. Have you any knowledge of the country between Warren and Coonamble? I have.
1605. Do you think that would be a wheat-growing country? No; a great deal of it would not, and some of it would. Take the country between Bullagreen and Bourbah. You go along there in wet weather and you cannot see the track; it is just like a stream. I have been seven or eight hours going from Bullagreen to Bourbah in winter time.
1606. You think that is country in which it would be almost impossible to grow wheat successfully? You could not do it.
1607. You might grow wheat in patches or in suitable seasons, but to grow it successfully you do not think it is possible? No.
1608. Do you know the country between here and Gilgandra, down the Castlereagh? Very well.
1609. What do you think of that? Of course, there is a lot of bad country, but then, again, there are some very good patches when you get in off the road a bit, especially in on the western side of the line from here to Gilgandra.
- 1610.

1610. You consider that country eminently suitable for wheat-growing? Yes; there is some very good wheat country through there.
1611. Have you any wheat from that locality? Yes; small quantities come in.
1612. The country is not yet sufficiently developed to send in any large supplies? No; a good many selections have been taken up there, and the holders are clearing the land, preparing for wheat.
1613. With regard to the country lying to the east, running from Gilgandra up towards Mundooran, and in that direction, I presume it would be supplied with flour from Coonabarabran? We send a good deal of flour there. For instance, some farmers of Toorawheena bring their wheat in here for gristing. We supply nearly all Gilgandra and Toorawheena. We do not supply Cobberah; they get their flour from Mudgee or Gulgong.
1614. But with regard to the whole of that country from here to Gilgandra, and a little distance on the eastern side of the Castlereagh down by Coonamble, and also the country lying west practically right through to Warren, and down the river to Bourke and the intervening townships and stations;—I suppose you have an outlet for flour in that direction? Yes.
1615. If any considerable quantity of land were put under cultivation for wheat, do you think the market would be overstocked;—do you think the wheat supply would be greater than the demand? It will be, locally; but we would have to export, and the price then would be regulated by the London market, less freight.
1616. You think the outlet would be sufficient to induce people to go in for the cultivation of wheat on suitable soil? I think so; because wheat is about the only grain you can grow up here with advantage.
1617. And the only grain that will bear the cost of carriage? Yes, and it does not require a very great deal of rain.
1618. Have the seasons been fairly favourable and the crops fairly successful from year to year to your knowledge? For the last two years. This season has been a very good one for quantity, although the quality was not A1. Still in quality it was far better than the southern wheat. The northern wheat has beaten us this year for quality, for they had more rain, but the quantity here has been very large.
1619. You heard the statement made by Mr. Morgan? Yes.
1620. Can you endorse that statement? Yes.

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Richard McGee, railway station-master, Dubbo, sworn, and examined:—

1621. *Mr. Roberts.*] Have you prepared a statement for the Committee in reference to the local traffic? I have a couple of newspapers in which statements were published for the years 1896 and 1897, the figures being taken from our books. There is a summarised statement of inward goods giving the totals. The total tonnage inwards for 1896—that is goods received at Dubbo—was 10,392 tons. These goods would come from all quarters, including Sydney.
1622. What other places would the goods come from besides Sydney? We receive wool and grain—grain from Narromine, Trangie, and other places, to the mill at Dubbo, and also grain from Maryvale and Guerie, and also from Murrumbidgee and Wellington. The figures given include merchandise from Sydney. The inwards traffic for 1897 shows a tonnage of 11,494 tons. The outwards traffic for 1896 was 9,916 tons, and for 1897 13,130 tons. The passenger traffic for 1896 comprised 12,224 passengers, representing in gross receipts £9,609. For 1897 the number of passengers was 8,797.
1623. Can you account for that falling-off in the passenger traffic? No; except by the ordinary fluctuations that occur. I think the heat-wave was on, and they were running a number of cheap excursion trains. The receipts for 1897 amounted to £9,226, so that they were very nearly as much as the receipts for 1896. Apart from the traffic mentioned there is a large traffic in sleepers.
1624. Is Dubbo a depôt for sleepers for railway purposes? Yes.
1625. And you send large quantities away annually? Yes.
1626. Did the sleepers for the Nevertire to Warren line come from here? Yes.
1627. Do you notice any difference in the traffic since the Nevertire to Warren line was opened? No; in fact, there is rather an increase of traffic just now as compared with last year.
1628. With regard to the passenger traffic, do you notice whether very many passengers who used to go by way of Dubbo now go by way of Warren? I think the fact of the line being extended to Warren has had the effect of rather increasing our returns in regard to passenger traffic. This year we had an increase of passenger traffic, as compared with last year, amounting to about £80.
1629. I think you said you were unable to give any information as to what traffic came from Gilgandra and other places along the suggested line? I could not give you any definite information. I am under the impression that the greater part of the traffic received here comes from that direction. We do a fair business with Coonamble through the agents. That is why I am not in a position to speak definitely on the matter. A large proportion of the goods received here comes through on truck rates consigned to Wright, Heaton, & Co. and other agents who distribute the goods.
1630. Does not a large amount of the Coonamble traffic go down to Mudgee? I do not know.
1631. Is there much live stock sent from here? The figures for 1897 show that we sent 152 horses, 2,736 cattle, 19 calves, 106,048 sheep, and 71 pigs. I have not the figures for 1896, but 1897 shows an increase. For 1897 we received inwards 48 horses, 864 cattle and calves, 18,963 sheep, and 55 pigs.
1632. Did you receive any wheat? Yes, but I have not the records.
1633. How many tons of wool did you receive here to be forwarded to Sydney during the years 1896–97? The 1897–8 season has not yet terminated, but up to date we have an increase on last year of 214 bales. That was notwithstanding the decrease in the flocks. Most of the stations had a decrease in their wool last year; owing to the drought; but there has really been an increase in our traffic.
1634. Did you get wool from some places where hitherto you did not? Yes; we got a clip or two.
1635. At the usual rates? Yes.
1636. Dubbo is a flourishing district? Yes; I look upon it as such.
1637. And has a good future before it? Yes; I think so. It seems to be more than holding its own, according to what I have seen.
1638. The people do not appear to be leaving the district—the people are well to do? Yes. I look upon the district by comparison as a good one. I have only been here three years, and by comparison with other places it seems to be a go-ahead place. Additional settlement appears to be taking place almost

R. McGee.

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- R. McGee.
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- every day. This year we are doing a considerably increased business in wheat and other cereals. For the month of January we had an increase of about 900 tons, as compared with the month of January of the previous year, and for February about 800 tons, as compared with February of 1897.
1639. Are potatoes grown here? No; I do not think we do much in the potato business.
1640. What is the produce confined to? Hay, straw and chaff, and wheat and flour.
1641. From your knowledge, and such information as you are able to gather in your railway transactions, do you think farming is progressing in the Dubbo district? Yes; and it seems likely to progress.

Craven Hyde Fitzhardinge, solicitor, Dubbo, sworn, and examined:—

- C. H. Fitzhardinge.
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1642. *Chairman.*] How long have you been here? Twenty-seven and a half years.
1643. You have a full knowledge of the district? Yes; I have travelled at different times from Dubbo to Coonamble, *via* Gilgandra; from Dubbo to Coonamble, *via* Curban; from Dubbo to Coonamble, *via* Haddon Rig; from Warren to Coonamble, *via* Haddon Rig and Inglegar. I had to go down by way of Inglegar, because at that time there had been a heavy fall of rain about Coonamble, amounting to some 10 inches, and I was advised that I could not cross the boggy plains at Bullagreen. Then I have also gone from Dubbo to Cobberah and *via* Merrygoen to Coonabarabran. I have studied the country, and am of opinion that for the benefit of the Colony and the railway system any railway communication with Coonamble and Walgett should be *via* Dubbo. This route would be easy of construction, there being no engineering difficulties, and all the requisite materials, such as timber, wood, stone, clay for bricks, and gravel would be obtainable on or near the line. This line would run not across the watershed but with it. There would be no great expense in bridges or large culverts until near Coonamble, when there would be a bridge over the Castlereagh. The country is sound for railway construction except near Coonamble, when black chocolate soil would be met. The proposed Warren route will not be easy of construction, and great engineering difficulties will be met with by reason of the line running across the watershed, Warren itself, at flood-time, being almost covered with water from the overflow of the Macquarie River. Starting at Warren, there would be great expense in construction, as considerable lengths of bridges would be necessary over the Macquarie River and the Bemunual Creek. The country at Warren being all alluvial, it would be difficult to get a hard and sound bottom. Ten or 15 miles out from Warren black and chocolate plains will be met, and from experience of the Nyngan and Bourke line, railway construction and maintenance across these plains will be most expensive and difficult, and probably dangerous. This kind of chocolate soil in dry winters, and in summer months, in fact even soon after rain, shrinks and cracks, and during sudden tropical storms, which are of frequent occurrence, these cracks serve as drains. The storm-water runs into them, and then 6 or 7 feet underneath the surface, rendering the whole country boggy, unstable, unsafe, and dangerous for railway construction. As this route from Warren would run across the water-shed the effect would be that in time of flood, or a visitation of tropical rains, which sometimes fall at the rate of 10 inches in a few days, the embankment of the line would act as a dam across the country, forcing the water back from its natural outlet. This might probably result in a serious loss such as occurred on the Nyngan to Bourke line in, I think, 1894, when miles of that line were washed away, and railway connection was suspended. This could only be remedied by large and expensive culverts. Such a state of things is not likely to occur on the line from Dubbo to Coonamble, as it would run almost with the water, and not dam up its natural get-away. The Dubbo route runs through good agricultural country, and last season, which was not a good one, showed that for wheat-growing there is no better country in the Colony. With regard to the rainfall for the last two years—1896-97—it has been 24·13 and 24·15 inches respectively. The rain has fallen at such times as to be of little benefit to the crops. It has fallen in the summer and winter months, and not at the time when we wanted it, and consequently we have had inferior crops. And last year also, although we had good yields, still the grain was all so pinched from the want of rain, that we lost considerably. The Warren line, with very few exceptions, runs through purely grazing country, and not through agricultural land. Where 100 acres on the Dubbo route would support a family, 500 acres on the Warren route would not keep a family by grazing. All the land recently thrown open on the Dubbo route has been rushed by applicants, and there were fifteen or sixteen applicants for one block. There is no land now open for selection. The Mudgee route is one offering great engineering difficulties and involves a much greater length of construction. The Dubbo route is the original overland route from the North, and from Queensland. That is what really made Dubbo originally; it is on the direct route from Queensland and the North. It was found out in the olden days that the route followed over the mountains was the best for a railway line, and so ought this route to be the best for a railway line, as it is the natural route. It is still used as the natural route, and although the railway has gone out further west, the stock continues to come in here from Coonamble and up the Marthaguy. With regard to the rainfall, the returns at Dubbo show that, in 1894, there were 31·83 inches; in 1896, 24·66 inches; in 1896, 24·15 inches; in 1897, 24·13; and for January, February, and March, 1898, 12·72. Although we have had a very good rainfall this year still is not as much benefit to the farmer except that it allows him to get on his land and plough during the summer. If we had had some of this rain in the early spring we should have had better crops.
1644. The rainfall is sufficient for the growth of wheat? Yes, ample. Sometimes we have tropical rains about March, when about 10 inches of rainfall in two or three days. Warren seems to be treated in that way very often, and that would cause trouble in constructing a line across the water-shed.

William Ernest Binning, Road Superintendent, Dubbo, sworn, and examined:—

- W. E. Binning.
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1645. *Mr. Hassall.*] How long have you been here? Eighteen months.
1646. You have travelled through the district a good deal in the discharge of your duties? Yes; I am always travelling.
1647. Are you able to give the Committee some information with regard to the traffic running out of Dubbo towards the Castlereagh country? I think I can safely say that a greater amount of traffic comes in on the Coonamble road than on all the other roads leading into Dubbo put together.
1648. Of what does the traffic principally consist? Timber and wool principally.
1649. Any wheat? I think not a great deal of wheat.
1650. The outgoing traffic, I presume, goes *via* Coonamble and the district generally? Yes; most of the stores go that way.
- 1651.

1651. Do you judge of the traffic by what you see yourself on the road? Yes, and by the cost of maintenance.
1652. Does much stock come in? Yes, a good deal of stock.
1653. Do you look upon the district as a progressive district? Certainly, it is going ahead very fast.
1654. Is settlement increasing to any great extent? Yes, very rapidly.
1655. More particularly in which direction? Well, all round.
1656. I suppose wherever land is available they make application for it? Yes.
1657. What would it cost per mile to make a good road through the Castlereagh country;—what did the metal road cost between here and Talbragar? It averages about £1,000 per mile—that is, where metal is available.
1658. What amount is available for maintenance between here and Gilgandra? £40 a mile.
1659. You are not able to do a great deal with that? No; it takes a terrible lot of money to maintain existing works on that road.
1660. Is it pretty sound country? Except in one or two places.
1661. Suitable you think for railway construction? Yes.
1662. Did you hear Mr. Fitzhardinge's evidence? Yes.
1663. Have you a sufficient knowledge of the country to corroborate what he said? No; I only know the country as far as Gilgandra.
1664. But you can corroborate the statements made by Mr. Fitzhardinge as applying to the country you know? Yes.

W. E. Binning.
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George Augustus Clark, Sub-Inspector, Permanent-way Branch, Department of Railways, sworn, and examined:—

1665. *Mr. Roberts.*] What are you? Sub-Inspector in the Permanent-way Branch, Department of Railways.
1666. Do you reside at Dubbo? Yes; and I have done so for about fifteen years.
1667. What are your duties? My duties consist in keeping buildings, bridges, and similar works in repair between Mullion Creek, Bourke, Cobar, and Warren. I do not leave the railway.
1668. Is it part of your duty to procure timber and forward it to these different places? It has been part of my duty to inspect and pass timber that has been supplied here for the Railway Commissioners in the form of sleepers, girders, piles, and fencing stuff.
1668. Does all that timber come from the Dubbo district? The sleepers, fencing stuff, and piles all come from the Dubbo district. A large quantity of the girders are supplied from Sydney.
1670. Is it any part of your duty to select the country where the sleepers should be obtained? No.
1671. You only criticise them after they are brought in for inspection? Yes.
1672. In what part of the Dubbo district is this timber generally obtained;—how many miles from here? At present the timber is brought from a distance varying from 15 to about 40 miles.
1673. In which direction? I can only say what I have heard the carriers state—that the timber comes from out Balladoran way, and that part of the country in a northerly direction between here and Gilgandra, but not on the western side of the Macquarie.
1674. For how many years has the timber been obtained from this district? Ever since I have been living here the timber has been obtained from this locality for the construction of different lines.
1675. Is it of excellent quality? Yes; it is of splendid quality for what it is used for, viz., bridges, sleepers, and piles.
1676. It wears well, and is really better than can be obtained in many parts? I am inclined to think it is better for local work than the coast ironbark. It is not so liable to be attacked by the white ant, and it stands the sun better.
1677. Is ironbark the only timber you get? That is the only timber I have any dealings with. We use the cypress pine for repairing buildings and other structures that have been attacked by the white ant which seems to be a great scourge here.
1678. Has it often become your duty to condemn the timber? There is always a certain percentage condemned. A great deal rests with the contractors; if they are inclined to bring in fairly good stuff there is less timber condemned.
1679. Is there any information you think would be useful to the Committee? Most of the timber used for the Cobar line and the Warren line, and on the line from here to Bourke, was obtained from Dubbo. The timber is of excellent quality and a number of the local bridges and roads are supplied from the Dubbo bush.
1680. Has any large quantity of sleepers gone east from this district? A large number of sleepers have in the past gone east from Dubbo, but I could not give any idea as to the actual quantity.
1681. How far towards Sydney do you send sleepers? We have sent them as far as Granville and further to the south, but, of course, only in exceptional cases. A considerable quantity of sleepers go from here to Forbes, Mount Victoria, and to the Mudgee line.

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Edwin Newbald Blacket, auctioneer and land agent, Dubbo, sworn, and examined:—

1682. *Chairman.*] How long have you been resident here? I have been engaged in that business for seventeen years in Dubbo. Previously I was for eleven years in commercial business in Dubbo, making a total residence of about twenty-eight years.
1683. Would you like to make a statement? I was a resident of Coonamble for three years before I came to Dubbo. It is not my intention to attempt to give any information applying to any part of the country beyond Gilgandra, as, I presume, that has been already obtained. In my capacity as a land agent I can describe the class of country between here and Gilgandra, the manner in which it is held, and the prospects of profitable settlement in the event of a railway being constructed. I can describe the character of the country from the Talbragar Bridge, 4 miles from Dubbo near Brocklehurst. The parish of Terramungamine consists of about 23,000 acres. It is all taken up in small holdings varying from 100 acres to 300 or 400 acres and in some cases 2,550 acres. The greater part is agricultural land which has been profitably farmed for years.
1684. How far from Dubbo is the nearest boundary of the parish of Terramungamine? About 10 miles.
1685. Therefore, this country is fairly well served by Dubbo? Yes. I then come to the parish of Daley.

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It consists of the leasehold area of Terramungamine, comprising about 17,000 or 18,000 acres. The lease will expire in 1900, and people are anxiously waiting for an opportunity of settling upon it when it becomes available. This land, I presume, will be thrown open principally in homestead selection areas, as it is pretty close to the township, and it will be settled upon by a good many families. The balance of the area in the parish of Daley consists of the travelling stock reserve. There are only two or three alienated portions of land in the parish of Daley; the land has not been available for settlement. In reference to this parish, starting from 10 miles out on the Coonamble road, at a place called Midway, a road branches off from Coolbaggie Creek to a place which has usually gone by the name of Fish's, and which leads on further to Bourbah, and opens up some of the best country we have in the Colony about Bundameer, Kickabil, Bundigoe, and various other places. A very short time ago a bridge was erected and opened for traffic across the Coolbaggie Creek, about 18 miles from Dubbo, which has given an outlet to all that country in the direction I have indicated. It is considered a great boon to the residents of the district, nearly every inch of which is taken up by *bona-fide* selectors who are using their best endeavours to go in for agriculture.

1686. What is your opinion of the country over the bridge? From this 10-mile point at Midway, where you leave the Coonamble road and branch off to the Coolbaggie, I suppose for about 2 miles through, it would frighten anybody to go there at all. I do not suppose that 2 miles after you leave Midway, until you get to the country going to Coolbaggie, you could find better country for agriculture. The parish of Goonoo lies due north from Terramungamine. The railway line goes through the western portion of it. About 7,000 acres are locked up in the railway reserve, and will be available for settlement when the reserve is cancelled. The balance of the parish is principally selected by small holders.

1687. Briefly, what is the class of country? I am not in a position to state exactly, except by hearsay; but I take it to be good country from the fact that the small holders are there. I have been through it on several occasions. I should say that the greater part of it was ordinary fair wheat-growing land. I then pass on to the parish of Caledonia, which is about 20 miles from Dubbo. It is bounded by the Coolbaggie Creek. The railway runs through the western side of it, and occupies about 5,000 acres which is locked up from settlement. It is intersected by the Coolbaggie Creek. There are farmers on it who, to my own knowledge, are now growing cereals. I have selected several portions there for different people. It is very much the same class of soil as Goonoo—reddish soil, fairly timbered. Pretty well all of it is pretty good agricultural land. Of course, there are some bad patches, as there will be in any part. I come next to the parish of Eumungerie. The road and railway line run through this parish. About 7,000 acres of Crown land are locked up by the railway reserve. On the Terramungamine leasehold land will be available for settlement in 1900. It all has a frontage to the Coolbaggie Creek. The balance of the parish is taken up by about seven full areas. I had the pleasure of selecting every inch of it. I selected for Messrs. Brown, Bell, Trypp, and others, who are now, I believe, carrying on a profitable occupation on their holdings.

1688. What is your opinion of the western portion of the parish of Eumungerie? I am informed that it is very fair grazing and agricultural country. The parish of Balladoran, which is the next, is bounded on the east by the Marthaguy Creek to its whole extent. It is selected by about eight holders, and about 6,000 acres are embraced in a railway reserve. One of the first families settled in the parish of Balladoran, on beyond the borders of the parish of Drillwarrina, is a family named Johnstone. Their sons and daughters have all selected land in that neighbourhood, and I believe they have all occupied it very profitably. I passed through from Coonamble on the 24th January on a business trip down there, and I brought in a sample of wheat from Johnstone's, of Balladoran, which I was commissioned to sell, the quantity being about 200 or 300 bags, and it was considered by good judges, purchasers in the town, as one of the best samples of wheat produced this year. All about the neighbourhood of Balladoran there was an impression years ago that you could not grow a grain of wheat. Now it is a totally different thing. I come to the parish of Drillwarrina—the road and rail run through it. There are about 7,000 acres of a railway reserve, and about 10,000 acres leasehold area of Balladoran, which falls in 1900. I believe there are actually about 17,000 acres awaiting settlement in that parish. At present there are four holders in the parish. I selected land in that parish for two or three members of a family named Berryman, who came, I think, from Victoria. These selections are in close proximity to those of the family of Johnstone of whom I just spoke as going in for wheat-growing. A gentleman from South Australia, named Wheaton, about three or four months ago, came over here with the object of purchasing a property. He travelled over a considerable portion of the district, and he returned and purchased a property from Mr. Berryman consisting of 2,560 acres, which he said was better wheat-growing land than any he had passed over. The next parish is that of Bungey. There is a railway reserve, and a leasehold area on Bongeobong which has the reputation of being good country. Mr. Wheble's property is in the parish of Bungey, and his leasehold expires in 1900. There are about 10,000 acres, all of which has a frontage to the Marthaguy Creek, and which awaits settlement. Messrs. Wheble, Humphries, Eddy, and Crockett, and various other holders occupy a great portion in this parish. All their holdings are close together, and contiguous to the proposed railway line. The parish of Breelong, in the county of Ewenmar, has a frontage to the Castlereagh River. I cannot speak of the eastern side of the road in the parish of Breelong in the same terms as I can of the western side. It is generally forest country, and it is held under forest reserve No. 22,722. There are about 12,000 acres altogether, consisting of ironbark forest, which is reserved for timber purposes. It was reserved several years ago for the purpose of the construction of a tramway, and it has been standing as a reserve on the parish map up to the present time. This forest reserve extends into the parishes of Eurah and Donnelly. I cannot say what the area of the forest reserve is, but it is of immense area, and reaches pretty well from that part of the country to Munderooran. The tramway, if it had been laid down, would have tapped that immense forest from which sleepers have been drawn for the railway lines between here and Bourke, and other parts of the railway system. These ironbark forests have given employment for years and years to hundreds of families here, and they are pretty nearly in immediate contact with the Coonamble to Dubbo road. Interspersed through this timber reserve are found belts of agricultural country; but I am not in a position to say of what area. In the parish of Donnelly you find Ranter's Creek, a very well-watered creek, on which there are three or four full areas of land held. I selected the whole of that part of the country myself for these holders, and their description of it is that it is as good box country as you could possibly find, the greater part of it being fit for agriculture. Between their boundary and the Dubbo-Coonamble road, I believe the country is not so good. You go through a station which

which has the reputation of being rather rough and thick. I am not in a position to say much about it as I have not been through it. Passing thence on towards Gilgandra, there is a bad piece of country there, there is no denying that. If you travel in a buggy over that corduroy road you find it out. That sand-belt, I believe, is about $1\frac{1}{2}$ mile wide in some places, and perhaps $1\frac{3}{4}$ or 2 miles in other places. It takes a north-westerly direction, and works round the outside of Gilgandra, near the Monkey Scrub, and out towards Berida, where I think it finishes. On either side of that scrub I believe the country is very fair. I believe a wrong view has been taken as to the real value of some of our lands. Because they were not valuable in the first instance for pastoral purposes they have been classed as useless lands, whereas if labour were expended on them they would give frequently the best return.

1689. If the land were thrown open in 1900 would there be a demand for it? Most decidedly. This morning there were thirty applicants for 109 acres of land offered in the local Land Office.

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Edward Charles Ewers, contractor and timber merchant, Dubbo, sworn, and examined:—

1690. *Mr. Hassall.*] Have you resided here long? For about twenty years.
1691. Have you been in business the whole of that time? I have been in business for about five years.
1692. Can you give the Committee any information with regard to the timber industry? The business which I have followed has been chiefly in relation to the ironbark, which is used for sleepers, piles, and girders for railway construction and maintenance.
1693. Where do you get the timber from chiefly? Chiefly from the direction in which this railway is proposed to run. It comes from Kickabil, Balladoran, and further north. That would be in towards Cobborah way; but the greater part of the timber for the last three years has come from Balladoran way.
1694. Practically, from the country lying between the Macquarie and the Talbragar? Yes.
1695. Along a line north to the Castlereagh? We have drawn timber from the Castlereagh.
1696. How is that belt of timber standing—is it getting pretty well worked out? For the first twenty-five miles from here it is getting thinned to some extent, but beyond that we have a bush from which, I suppose, we shall be able to get timber for the next half century. We have been getting timber within a distance of 20 or 25 miles for the last eighteen or twenty years, since the construction of the line to Dubbo. We have been getting timber now within 10 miles of Dubbo—ironbark of various kinds.
1697. A line of railway running from Dubbo to Coonamble would tap this apparently inexhaustible supply of timber lying near the Castlereagh River? Yes; it would tap the timber on the Castlereagh and on the other side of it. Timber can be obtained cheaper on the Dubbo line than on the Warren line.
1698. With regard to the question of the cost of producing sleepers, I suppose the price at which they are delivered here depends on the distance which they have been brought? Yes.
1699. Taking a radius of 10, 15, 20 and 25 miles, what would sleepers cost delivered in Dubbo? Within a radius of 10 miles the carriage charged is generally 1d. per mile, and it is proportionately less per mile as the distance increases.
1700. So that I suppose they would be carried 25 miles for about one penny half-penny? Yes.
1701. What are sleepers worth in Dubbo? At the present time large sleepers are worth 6s. 6d. and small sleepers 4s. 6d.
1702. Do you think the fact of a railway being constructed through that country would make the sleepers cheaper? Undoubtedly it would, because it would save at the very least from 15 to 20 miles carriage. If we had a railway constructed to Coonamble we should only have to draw sleepers a distance of 5 or 10 miles for years to come, whereas now we are drawing them a distance of from 15 to 40 miles.
1703. It would mean practically reducing the price of the sleepers by a shilling or eighteen-pence each? Yes.
1704. Is there any other timber used in your business—do you use much pine? Yes, there is a great deal of pine used.
1705. Where do you get it? It comes chiefly from the same direction—the Castlereagh—with the exception of what comes from Narromine and other places by train. But the pine chiefly comes from that direction.
1706. You know that there is a very large timber forest in that direction with practically an inexhaustible supply of timber available? Yes.
1707. *Chairman.*] Do you know the big timber reserve down Kickabil way? Yes.
1708. Is there much timber there? Yes; there is a great deal.
1709. A very large quantity indeed? Well, not such an immense amount; but still there is a large quantity.
1710. It will last for some time? Oh, yes, last for years. We have been cutting on the edge of it now for a number of years. We have not got into the forest yet amongst the best of the Kickabil timber.
1711. How far do you draw? About 25 miles.
1712. If a railway went through, it would furnish you with a very fine supply of timber? Yes.

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George Henry Taylor, Returning Officer, Electoral District of Dubbo, sworn, and examined:—

1713. *Mr. Roberts.*] Have you any official information in connection with your office which would be of value to this Committee? I received a letter from the Chairman asking me to prepare a return, which I have done. It relates to the last Federal Election and the last General Election. I produce a copy of the electoral roll. There are 300 odd new names to be added.
1714. Have any been erased? I could not say; the revision has not taken place. At the last Parliamentary election there were 1,358 votes recorded, and there were 2,042 electors on the roll. Of these 1,358 votes 1,077 were recorded in the Dubbo Division, 188 in the Narromine Division, and 93 in the Trangie Division.
1715. How long have you been resident in Dubbo? Thirty-five years.
1716. Carrying on business as a stock and station agent? Yes. I know the country very well. Previously I was for six years on the Merri Merri, adjacent to Coonamble, and I know that country very well right into Warren. It was my duty as manager of a station—they were all cattle-stations then—to be continually on the move about that part of the country.
- 1716½. You know all the country, I suppose, traversed by the three proposed routes? Yes. I can endorse the evidence given by Mr. Blacket and Mr. Dulhunty. I think Mr. Thomas, in describing the ironbark country, described the very worst portions. There are different portions of ironbark. Some consist of sandy

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G. H. Taylor. sandy loamy soil, which, as Mr. Dulhunty said, will yield 25 bushels of wheat to the acre. On the other hand, there are some very bad descriptions of ironbark country—hard stone and white gravel. There are patches of that which are very bad; but the general run of ironbark country is of a sandy loamy kind, which, if cleaned and cultivated, would give a good yield.

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1717. You have heard the evidence given by Mr. Blacket and Mr. Dulhunty? Yes.

1718. Do you agree with what these gentlemen said? I agree chiefly with Mr. Blacket's very able and graphic description, which I can endorse from my knowledge gained riding along the road and going off it after stock, and looking for horses between here and Gilgandra; and I know that the country between Coonamble and Warren, as stated by Mr. Thomas, is splendid pastoral country and cannot be beaten; but it was never considered during my time (and I resided there for six or seven years) good for agricultural purposes, except in patches.

1719. You are aware that there are large areas of land which were not considered suitable for agriculture a few years ago, but which are now regarded as adapted for that class of occupation? I am aware of that, and an instance is afforded both at Narromine and Dubbo. That land was not considered good agricultural land at one time, and yet I suppose there is no finer agricultural country going.

1720. What do you think of the country between Bullagreen and Coonamble, on the Warren line, for the growth of cereals? Part of it would be good and part not good. I know it is greatly inundated with water during flood time. I have seen the whole of the country almost from the Macquarie to Coonamble under water during flood. It is low flat country, and I am sure that there would be great engineering difficulties about Warren in the event of railway construction from that place. One of the principal settlers in the Bullagreen told me only yesterday that if a railway were constructed from Warren to Coonamble the people at Bullagreen would still send their wool and produce to Dubbo rather than send it to the railway, involving extra trainage round *via* Nevertire.

1721. You favour the Dubbo-Coonamble route yourself? Most decidedly. In the interests of the country it is far and away the best line.

1722. What do you think of the Mudgee to Coonamble route? I do not think any Government would go to the expense of building 50 miles of railway over mountainous country at a cost of £500,000. The Goodaman Range and the Cudgegong River offer serious engineering difficulties going into Mudgee.

1723. Knowing that undulating country you think it would be far better in the interests of the State to run a line from Dubbo to Coonamble? I have no doubt about it. There should be a main trunk line from here to Coonamble; it would go through perfectly level country.

1724. Do you think a greater number of people would be served by that line than by a line from Warren to Coonamble? Yes, a far greater number.

John Wheaton, farmer, Dubbo, sworn, and examined—

J. Wheaton. 1725. *Chairman.*] You are a resident of the Dubbo district between here and Balladoran? Yes, on the western side of the road.

31 Mar., 1898. 1726. You recently came from South Australia? Yes.

1727. You have been farming for a considerable number of years? Yes, all my life.

1728. You know what land is fit to produce? I am not sure of that. My opinion is altered with regard to land. There is some land that has been condemned this side of Gilgandra. I have seen land like that condemned in South Australia, and when it has been cleared it has been found to have been as good as the other land. I have seen sandy land grow good crops—land which after it was ploughed would almost blow away. Any land that will grow pine will produce a crop of wheat.

1729. You have been growing wheat in South Australia? Yes.

1730. Will you be able to grow wheat on your present holding as satisfactorily as you were able to do in South Australia? Yes.

1731. You have no doubt of that from the fertility of the soil and the rainfall? Yes, and from my experience of what I have seen of wheat grown here during three years; last year I saw the wheat grown and this year.

1732. What have you got? Box country, with a few ironbark trees mixed.

1733. But not real ironbark country? No.

1734. In what parts of New South Wales did you look for a farm before selecting your present holding? I travelled to the south of Dubbo for about 10 miles, and within that radius; then I went 40 miles north of Dubbo, and to the west of that road.

1735. You went towards Berida and Bungey? Yes.

1736. And after looking over that country you came to the conclusion that you had better settle down where your present homestead is? Yes.

1737. Do you believe that more South Australians will come to the Dubbo district to grow wheat? I am sure of it. There are several in communication with me at the present time who, as soon as they can get rid of their farms, will come over here. They are satisfied that where I have come to must be a good place, because I left one of the best districts in South Australia.

Robert George Dulhunty, Inspector of Stock, Dubbo, sworn, and further examined:—

R. G. Dulhunty. 1738. *Chairman.*] You have prepared some information for the Committee? Yes; I hand in a list of stock-owners who reside at the furthest 12 miles on either side of the line "A," with the number of stock,* according to the sworn returns. The totals show 92 owners, 1,323 horses, 3,300 cattle, and 346,830 sheep. That embraces a part of the country not more than 14 miles wide. With regard to the annual traffic, I estimate that the traffic both ways on line "A" would be 1,000 horses, 10,000 cattle, and 1,000,000 sheep. It is one of the most important stock routes in my district, and my district is a very important one. From my knowledge of the district out there, and that ironbark country, I know it to be first-class fruit country. One man has a magnificent orchard, and makes his living by driving in to Dubbo with fruit. This land is on the very edge of the ironbark country.

31 Mar., 1898.

* NOTE (on revision):—The area for 12 miles on either side of the line "A" and the ninety-two owners, 1,323 horses, 3,300 cattle, and 346,830 sheep, only applies to the line from Dubbo to Gilgandra, as the opposite side of the Castlereagh River is not in any sheep district, and I could not give the return. There are large numbers of holders within a mile of the proposed line, in the Coonabarabran and Coonamble districts.

Edmund Henry Utley, timber merchant, Dubbo, sworn, and examined:—

1739. *Chairman.*] What are you? I am a timber merchant, blacksmith, and wheelwright. I have carried on business in the district for thirteen or fourteen years, particularly in the timber trade. I send timber to all parts of the country, east as well as west, but particularly west. The country from here out is rather deficient of valuable timber, such as is required for bridge work, railway work, and mining work. We send a large quantity of timber from here to the mines at Cobar, and I think in the future as the mines in that part of the country develop there will be a large demand for our hardwood timbers to be used in the mines as props for which purpose our hardwood is specially suitable by reason of its strength. A railway from Dubbo to Coonamble for the first 40 miles would probably go through the worst portion of the country along the route. At the same time the railway would be revenue-producing and would be a great benefit to a large number of people and to trade generally in the west and also in the east, because I think you will find that there is no timber of any value between the coast and the belt of timber that runs along the western slopes of the Dividing Range. The Dubbo district is probably the tail end; it runs more north from Dubbo. It seems to me from what I know of the country that the hardwood in the south is inferior to that grown in this neighbourhood. The river Macquarie cuts the valuable hardwood forest off, and it runs from here to Narrabri. It is contained in a belt of country that runs 40 miles wide right through to the northern railway system. I quite endorse what has been said with regard to sleepers. From my boyhood, Dubbo has supplied the western railway system and to the east also with all the sleepers, piles, girders, and other valuable timber required for public works in this part of the country. The timber is durable. If the matter were referred to the high officers of the Railway and Public Works Departments they would say that the ironbark on the western slopes of the mountains is the most durable timber we have in the Colony. If a railway goes within a few miles of that country the timber will be available at a cheap price. Intervening between that country there is a great deal of agricultural land. Fifteen years ago we would not look at scrub land, preferring plain and open country. But some of this scrub land has been cleared and has grown heavy crops of wheat. I have seen as much as 40 bushels to the acre grown in a fair season where a man was careful and tilled and worked his land well. Farmers who came here first put in a few acres of wheat at any time and the result was not very good. But more recently our settlers have been going in for systematic farming, following the example shown by men who have come from other places. The result is that they are successful both as regards quality and quantity. I think it would be advantageous in the interests of the country at large that a railway should be pushed through the country with such great resources—country where grazing and agriculture can be combined, and where there are other natural products, such as timber, which could be utilised at seasons of the year when the wool and wheat are not coming in. In regard to the claims of the line from Dubbo to Coonamble, as against those of the Warren to Coonamble line, we should consider the great distributing power of this centre of population. The natural get-away to the north and north-west from here has been in the direction of Coonamble. There has always been a great deal of traffic on that road, and there is no district through which railway construction would be more justified. Along the banks of the Castlereagh I saw this year crops of wheat that would yield at the very least 30 bushels to the acre. A railway running parallel to the banks of the Castlereagh—the country being rich from Gilgandra to Coonamble—would serve the greatest number of people. It would be a revenue-producing line, and would serve a large district whose inhabitants would otherwise be at a great expense in getting their produce to market. The people are taking up land and going in for farming all along the banks of the Castlereagh and east of the Castlereagh, towards the Warrumbungles and through Toorawheena on to Coonabarabran. At present there is not a good market for the settlers at Coonabarabran, who have to sell their wheat to the local mills. If a railway were constructed they would be able to send their wheat to the open market, and get the ruling price for it.

E. H. Utley.
31 Mar., 1898.

FRIDAY, 1 APRIL, 1898.

[The Sectional Committee met at the "Cobborah Hotel," Cobborah, at 7:30 p.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. CHARLES JAMES ROBERTS, C.M.G. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Warren to Coonamble.

Thomas Samuel Slack, senior constable of police, Cobborah, sworn, and examined:—

1740. *Chairman.*] What are you? Senior constable of police stationed at Cobborah, which position I have occupied for the last thirteen years.

1741. Consequently you have a full knowledge of the district? Yes.

1742. I believe you have prepared a statement? Yes. The Committee being desirous of conserving the public interests in its recommendation as to railway extension, keeping also in view future possible extension, I respectfully submit that the extension should be from Mudgæ to Coonamble, for the following reasons:—The line would open up grand country, and the railway from Dubbo to Werris Creek, if constructed, would junction with it at or near Cobborah. The extension now suggested is desirable in view of the congestion of traffic on the main Western line, especially between Orange and Lithgow, caused by the branch lines, Murrumburrah to Blayney, Condobolin to Orange, Cobar to Nyngan, and Warren to Nevertire. If the congestion is now so great, what will it be in three or four years' time, when the country between Dubbo and Nyngan, and out back on the Bogan at Dandaloo, are brought under cereal cultivation. If we had a few good seasons no single line could cope with the increased traffic. But if the Mudgæ line is extended, then a portion of the Werris Creek line from Dubbo, with a junction at or near Cobborah, would carry all the traffic between Dubbo and Bourke, *via* Mudgæ, to Wallerawang, thus relieving the traffic between Wellington and Lithgow. In the near future a line will be made from Rylstone, *via* Colo Valley, to Sydney, and from the report of Mr. Townsend it would appear that that line would be almost level, and an engine could take as many trucks as can now be taken from Dubbo to Nyngan;

T. S. Slack.
1 April, 1898.

T. S. Slack. Nyngan; so that it would be a continuation to fit in with future railway extension and give another route to the metropolis. All traffic between Dubbo and Bourke could be sent this way, the route being shorter. Again, vast deposits of coal exist in the vicinity of Cobborah and along the Talbragar as far as Ballimore, and also at Spicer's Creek. This is a fact which should be taken into consideration with a view to a saving in the haulage of coal. The Colo line would be the means of opening out and bringing to market vast deposits of coal, making Sydney and the country districts independent of Newcastle. The statistics in reference to land under cultivation for 1896-97 are as follows: Freehold land, 43,902 acres; Crown land, 174,520 acres; under cultivation, 3,427 acres; wheat, 2,420 acres, yielding 26,350 bushels. For the year 1897-98 the area under cultivation was 3,881 acres, of which the area under wheat was 2,813 acres, giving a yield of 30,550 bushels. In 1891 there were 1,874 acres under cultivation, of which 1,186 were under wheat, and the yield from which was 14,811 bushels; there were 6 acres of grape vines, with a return of 656 gallons of wine; there were 11 acres growing table grapes, and the yield was 18 tons of fruit; there were 32 acres devoted to fruit-orchards, the value of the product being £575; there were 12 acres not bearing. The butter produced amounted to 8,974 lb., cheese, 600 lb., and bacon 18,656 lb. The stock returns show a total of 2,000 cattle, and 200,000 sheep. The number of travelling-stock in my returns—stock going to Mudgee and to Dubbo—is 50,000 sheep, and 2,000 head of cattle. I should say that as many again pass through which I do not see. The population is 1,100. These statistics do not include the north side of the river Talbragar, where the returns were collected by the Muntooran and Coolah police.

1743. Over what area were these statistics collected? Over an area extending 12 miles east from Cobborah, 25 miles south, 25 miles west, and 25 miles north.

1744. Since your returns do not embrace the whole of your police patrol district, by how much should those returns be increased to give us a fair idea of the quantity of wheat produced, area under cultivation, and other matters;—would you increase them by half? Yes.

1745. Therefore we may take it that in your police patrol district within the limits you mention, there would be perhaps 45,000 bushels of wheat, and the cultivation would probably be between 5,000 and 6,000 acres? Yes; the figures I have given are approximate.

1746. The leases of the Crown lands amounting in area to 174,000 acres, mentioned in your statement, will fall in within, say, three years? In July, 1900.

1747. What is the quality of that land? The most of it, or three parts of it, is very good.

1748. Suitable for the growth of wheat? Yes; it consists of yellow box, white box, and a few ironbark ridges. There is one main ironbark ridge which runs right along to Muntooran.

1749. What proportion of the 174,000 acres would be suitable for the growth of cereals? About one-third. Speaking approximately, I should say that of the Crown lands there are fully 60,000 acres suitable for the growth of cereals, and 25,000 acres which may be regarded as worthless for the purposes of settlement, but on which there is very good timber. The residue may be regarded simply as fair land for pastoral purposes.

1750. Would this land be taken up as soon as it was thrown open? Yes.

1751. Almost the whole of it, with the exception of the 25,000 acres of worthless land? Yes; as fast as it is thrown open there are people ready to take it up.

1752. What is the country like from here to Muntooran? The distance is 22 miles. For the first 10 miles the country is very indifferent; but beyond that it is very good.

1753. And from Muntooran to Binaway? There is some splendid land up that way.

1754. Is this a good district for wheat? Very good.

1755. Does a man, as a rule, get a good crop? Yes, a very good crop.

1756. How many years out of five? Three or four.

1757. There would not be much more than one failure in five years? No.

1758. Is the district progressing? It is. The population on the 31st December last was 1,100. That is in my patrol district. Five or six years ago it was 900.

1759. *Mr. Hassall.*] What is the nearest land office? The whole of the land business is transacted at Dubbo, 50 miles distant.

1760. Are there any newcomers here? Two years ago the Stringybark gold-fields broke out, and that has caused an increase of population.

1761. And with regard to the farming population? That has increased as fast as the land has been available.

1762. Has that land been applied for by people residing in the district who have grown up here, or by fresh arrivals from different parts of the Colony or from other Colonies? There have been no fresh arrivals, the land has been taken up by local people.

George Paterson, farmer, near Cobborah, sworn, and examined:—

G. Paterson. 1763. *Mr. Roberts.*] Have you resided in this district for any length of time? About twenty-seven years.

1 April, 1898. 1764. What area of land do you hold? 320 acres.

1765. Where is your farm situated? Seven miles from Cobborah up the river, east from here.

1766. What do you cultivate? Chiefly wheat, as well as maize, and other produce.

1767. Is the whole area of 320 acres under wheat? I have cultivated about 50 acres of wheat. I run a few sheep and cows. I have a few acres under corn.

1768. Do you utilise the whole of the 320 acres? Not for cultivation purposes.

1769. How many sheep do you run? About 200.

1770. Is that about a sheep to the acre? Quite a sheep to the acre, where the sheep run. Sometimes there are two sheep to the acre.

1771. What would be a fair estimate of the carrying capacity of the land for sheep? On the Government land, on the runs, I suppose, about a sheep to 2 acres. On the ringbarked timber the land would carry a sheep to the acre with safety, taking one season with another.

1772. How many bushels of wheat do you get to the acre? Last year my crop averaged 28 bushels.

1773. How long have you been growing wheat? About eighteen years.

1774. Where do you send it? I send it chiefly to Gulgong now. About fifteen years ago we had to go to Dubbo, but since there has been a mill at Gulgong that has been our chief market, and occasionally Mudgee.

1775. How long is it since the mill was erected at Gulgong? About five years. The distance to Gulgong is less than that to Dubbo by about 20 miles. G. Paterson.
1776. As a rule, do you get a fair market price for wheat at Gulgong? Yes, about the general average. 1 April, 1898.
1777. What does it cost you to take wheat to Gulgong? At one time we paid 2s. a bag; but recently the carriers with big teams have been charging slightly less.
1778. What did you pay last time? I took it in myself last year.
1779. What is the ruling rate? 1s. 6d., 1s. 9d., and 2s. a bag.
1780. And what did you pay to send it to Mudgee? I never paid carriage from my place to Mudgee; but I suppose it would be about another shilling a bag. That would be a total of 8d. a bushel.
1781. What do you reckon a bushel of wheat costs you to grow? It is difficult to say, as together with members of my family, I do a lot of my own work, and I keep no accounts which would enable me to give this information.
1782. If you got 3s. a bushel for your wheat I suppose you would do fairly well? Well, not too well. At any price under 4s. the farmer has very little to come and go upon. He has to cut things very fine to make wheat-growing pay at anything under 4s. I consider that 4s. would be the minimum price at which it would be worth while to grow wheat. Sometimes I have to be satisfied with 2s.
1783. What are the wishes of the people with regard to railway communication? It has been their earnest wish for many years to get railway communication out here.
1784. Do you agree with the evidence of Sergeant Slack as to the desirableness of railway communication? Yes.
1785. How often in the eighteen years has your crop failed? I have had three failures in the eighteen years—two years owing to dry weather, and one owing to rust.
1786. When Sergeant Slack said that the proportion of failures would be two out of five, you think he erred on the side of caution? Yes.
1787. Do you regard the majority of the land round here as well adapted for wheat-growing? Yes; the majority is good wheat-growing country, and with favourable seasons, we can grow wheat.
1788. Do the people here feel the want of a railway? Yes; that is what we require to send the district ahead. The progress of the district is greatly retarded for want of railway communication. We have no market outwards.
1789. You think that if the railway were brought here, and land thrown open, a large agricultural population would be sure to follow? The land would be taken up as soon as it was thrown open.
1790. *Mr. Hassall.*] Has the country which would carry a sheep to the acre much grass seed? Before the country is ringbarked it carries a great deal of grass seed.
1791. Does ringbarking improve the quality of the grass, and do away to a great extent with the grass seed? Yes.*

Harry Albatross Patrick, grazier, Digilah, sworn, and examined:—

1792. *Mr. Hassall.*] Where do you reside? At Digilah, about 16 miles from here.
1793. What is the character of your holding;—is it leasehold area or selections? My brother and I in company hold a leasehold area, three occupation licenses and annual leases, and about 5,000 acres of freehold land, making an area, approximately, of nearly 60,000 acres. H. A. Patrick. 1 April, 1898.
1794. Is that country up on the Castlereagh River or near it? It commences within about 2½ miles of the Castlereagh River and extends across the Talbragar to within 16 miles of Gulgong.
1795. It is devoted principally I suppose to sheep-farming? Yes.
1796. Have you gone in for agriculture at all? Only for station use.
1797. You have heard the statements made by Sergeant Slack and Mr. Paterson with regard to the capabilities of the district? Yes.
1798. Can you endorse those statements from your own personal observation and knowledge? Yes, I agree with the statements generally, though not as to every item.
1799. Where do you differ? I think there is a greater area of valueless land included in the Crown lands than was stated.
1800. The sergeant said that out of 174,000 acres about 25,000 acres were valueless? There is a greater area of valueless land than 25,000 acres. At least one-fourth of the 174,000 acres would be valueless, except for the production of timber and minerals, the timber being principally ironbark and pine of excellent quality.
1801. Is the estimate of 60,000 acres of land suitable for agriculture a pretty fair estimate? No; I would not estimate the area at so much as that. I would reduce it to 40,000 acres. The balance of 80,000 acres would be fairly good grazing land, hilly—stony.
1802. But improved, would carry a fair number of stock? Yes.
1803. About a sheep to 3 acres? Yes, if improved by ringbarking.
1804. With regard to the value of this country, the extent of which you put down at 40,000 acres, although it may be practically valueless for either agriculture or grazing, it might still be a valuable asset to the State, on account of the timber it contains, which would be a source of great revenue, and afford employment for labour? Decidedly so.
1805. In fact, it is one of the best ironbark forests in New South Wales? Yes.
1806. You know the country very well, say, from Dubbo, in the direction of Werris Creek? Yes; I know the country very well lying between Dubbo and Werris Creek. A line between those two points would traverse good country, following the valley of the Talbragar to Cobborah, and on to the Castlereagh River. Thence it would go through the ironbark belt, previously alluded to, on to Coonabarabran through fair country, and from Coonabarabran, after leaving the Warrumbungle Ranges it would traverse the Liverpool Plains, with first-class country, right through to Werris Creek.
1807. Would a line running through there be of any service to this district? It would be of some service, but it would entail a great deal more haulage. It would be a very expensive way of sending produce. 1808.

NOTE (on revision):—Through lack of railway communication and extension, the settlers here are seriously handicapped in the matter of many crops, such as potatoes, onions, hay, and other produce. Such crops cannot now be profitably grown because the local consumption is too small, and the road-carriage too expensive. Should railway extension be made through the district, the farming industry would be revolutionised and considerably augmented, and farm productions at present proscribed would be cultivated and despatched to outlying districts, such as Coonamble, &c., where climatic influences retard cultivation.

* 1 (a)—I

- H. A. Patrick. 1808. A cross line of the character thus indicated would not, in your opinion, serve this district so well as a line running through from Mudgee to Coonamble? No; it would not benefit this part of the country nearly so much.
- 1 April, 1898. 1809. Would it be of any benefit at all? I believe it would. It would open up the country and give more speedy means of communication north and south, but not direct with the metropolis, nor into the interior.
1810. How long have you known this district? About twenty-five years.
1811. Have you seen the growth of settlement in it? Yes.
1812. You can corroborate what has been previously said in that respect? Yes.
1813. That the land, when available, is greedily taken up? Yes; there is a great rush for the land as soon as it is thrown open. There are from twenty to sixty applications for every block.
1814. The principal pursuit of the people is grazing? Grazing, combined with agriculture.
1815. Do the people around here seem fairly prosperous? Yes; there are very few failures. They are not rich, but they all seem to get a fair living. The industrious settler seems to be fairly snug.
1816. I suppose your information with regard to the carriage paid for wool is practically the same as that given by previous witnesses? Yes.
1817. You send your wool to Mudgee? Yes; that being the nearest railway-station.
1818. Is there a good road from your place to Mudgee? Yes; there is a very good road from Mudgee to within 6 miles of my station. In my opinion, some of the otherwise worthless country in the district bears minerals of various kinds, and some of it contains good deposits of coal. Prospecting operations have been carried on, with good indications of gold, silver, copper, and other minerals. There is a good coal deposit of 6 feet in the Buthow Creek near here, which I have just reason to believe is equal in quality to the best Newcastle coal. This should have the attention of the Government, as, in my opinion, it is a valuable treasure for the future of the Colony, being on Crown lands.

William Thomas Chapman, farmer, Cobborah, sworn, and examined:—

- W. T. Chapman. 1819. *Chairman.*] What are you? A farmer, residing at Cobborah, and a member of the Progress Association.
- 1 April, 1898. 1820. Having heard the evidence already given, do you believe that in all the main principles it is correct? Yes.
1821. Do you agree with Mr. Patrick with regard to his estimate of the proportion of Crown lands fit for cultivation? Yes; I think he is very near the mark. The country through which the railway line passes from Mudgee to Coonamble is nearly all very good. A good deal of it is first-class country, and three parts of it are good for cultivation.

James Hogden, farmer and carrier, near Cobborah, sworn, and examined:—

- J. Hogden. 1822. *Chairman.*] What are you? A farmer and carrier, residing 5 miles from Cobborah. I am a member of the Progress Association.
- 1 April, 1898. 1823. You have heard the evidence given this evening;—do you agree with it in the main? Yes.

James Henry Daley, farmer, near Cobborah, sworn, and examined:—

- J. H. Daley. 1824. *Chairman.*] What are you? A farmer residing about 2 miles from Cobborah.
- 1 April, 1898. 1825. Have you heard the evidence given? I heard that given by Mr. Patrick and Mr. Paterson.
1826. Do you agree with it? Yes; I think it is very fair.
1827. Fairly represents the position of Cobborah? Yes. I consider we are greatly shut out from railway communication. It does not pay to carry vegetables and similar produce to Mudgee, as the distance is too far, and the local consumption is not sufficient to justify much cultivation of the sort.
1828. *Mr. Roberts.*] How far from Cobborah is there any mining going on? There is mining at Stringybark, about 12 miles in the direction of Gulgong, and also at Hughey's Waterhole, about 10 miles in the same direction. It is all gold-bearing country from here to Gulgong.
1829. Are the men working there doing fairly well? Some of them are doing fairly well. The biggest drawback here until lately was the want of water.

SATURDAY, 2 APRIL, 1898.

[*The Sectional Committee met at the Town Hall, Gulgong, at 2:30 p.m.*]

Present:—

THOMAS THOMSON EWING, Esq., (CHAIRMAN).

The Hon. CHARLES JAMES ROBERTS, C.M.G. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Warren to Coonamble.

Christopher Reid Young, storekeeper and miller, Gulgong, sworn, and examined:—

- C. R. Young. 1830. *Chairman.*] What are you? Storekeeper and miller, carrying on business at Gulgong. One great reason why the people of Gulgong felt that it was desirable to extend the railway from Mudgee to this place was, that the Mudgee railway was not paying, and therefore the more traffic that could be brought on to it the better for the State. The people of Gulgong felt that the construction of the railway would develop their district and create greater traffic. I have had an opportunity of looking at the statistics that were furnished eight years ago to a Sectional Committee of the Public Works Committee with regard to the Mudgee to Gulgong railway, and so great has been the extension that, in my opinion, the statistics then given with regard to agricultural development might be increased fourfold. Another point that I regarded as important was, that the agricultural products of this district could be better sold to the west than to the east at times; that there was a certain population there to whom we believed we should be the nearest agriculturists, and that would mean virtually the extension of the line from Mudgee *via* Gulgong to Coonamble. I desire to emphasise the effect which, in my opinion, a railway would have on the development of a district such as this by bringing the land under cultivation. As an example of this, I would direct attention to a statement made by me when giving evidence before a former Committee on the 24th March, 1890 (Question No. 1673). I then stated that I purchased that year 10,000 bushels of wheat. This year I have purchased up to date 75,000 bushels, and the wheat is still coming in freely. My transactions may all be regarded as having since that date increased fourfold.

1831.

1831. Is the quality of the wheat grown here very good? The very best.
1832. What is the cost of bringing a ton of wheat from Cobberah, a distance of 32 miles, to Gulgong? About 20s. C. R. Young.
2 April, 1898.
1833. What does it cost you to send a ton of flour from here to Cobberah? In round figures about £1.
1834. What does it cost to send a ton of flour from here to Mudgee? About 7s. 6d.
1835. And how much would it cost to send a ton of wheat from here to Mudgee? Seven shillings and sixpence—approaching 2d. a bushel. With regard to the quality of wheat, I am proprietor of the Commercial Mill at Gulgong. The flour I produce is the best. In proof of this I may say that I obtained the Government prize of £25 the year before last at the Bega show, and my flour took first and second prizes at the Agricultural Association's Show. In 1895 I obtained first prize in Mudgee, and one year I got first prize at Gulgong, beating the flour that took the £25 Government prize at Mudgee. The flour stands first class on the Sydney market. Because it is dryer than any other flour it is picked out for export to Fiji and other South Sea Islands. A good upland farm in this district should yield from 25 to 30 bushels per acre. The river flats are not so good. The crops fail less frequently than in any other wheat-growing district of the colony. There has only been one failure since I have been here, which is nearly thirty years. I desire to explain to the Committee what may be the future of the growth of cereals in this district. The wheat going west for the supply of the markets either north or west may be ground in Gulgong and go as flour. The wheat going to the metropolis will go partly as flour and partly in grain for blending purposes, possibly. The export trade for the shorter distances, including such places as Fiji and the other South Sea Islands, will probably be done in the shape of flour. But when the wheat goes to the market of the world it will go in grain, since it is blended in England. The wheat to South Africa will go principally in grain. Our surplus will be exported. We should sell all we can in the west and export the surplus to Sydney. The reason why I state that the surplus products of the fields here would go abroad in the shape of grain is that for many markets it is necessary to blend the grain, and generally speaking the grain carries better than the flour.
1836. Would it be possible to increase the production of wheat? Yes; it would double again in two or three years.
1837. How much wheat do you get from between Gulgong and Cobborah, or about Cobborah itself;—how many bushels do you buy in the year? The bulk of the wheat comes from between Gulgong and Cobborah. On the other side it principally goes to Mudgee. The bulk of our wheat comes from the Talbragar, about to the right and left hand of Cobborah. There is a great amount of farming away on the right-hand side.

Richard Rouse, junior, grazier, Biraganbil, near Gulgong, sworn, and examined:—

1838. *Mr. Hassall.*] What are you? A grazier, residing at Biraganbil, about 6 miles from Gulgong. R. Rouse,
jun.
2 April, 1898.
1839. You have an intimate acquaintance with the Mudgee district? Yes; I know the country all the way from here to Coonamble almost as well as it is possible to know it. I have travelled it with stock, and have frequently ridden and driven backwards and forwards over it. My father having held properties for many years situated along the survey of the proposed route from Mudgee to Coonamble, I am in a position to speak with regard to the character of the country.
1840. Will you give the Committee a description of the country from Gulgong to Cobborah, running as nearly as possible along the surveyed route, and taking a strip of country, say, 20 miles in width on each side of it that would be served by the railway? Leaving Gulgong, and crossing the Wyaldra Creek, the land on each side of the surveyed line for a great extent between here and Cobborah is fit for agricultural purposes when we get as far as the Goodaman Range. This range divides the water from the Cudgegong River and the Talbragar. The waters on this side run into the Cudgegong, and on the other side into the Talbragar. There are some belts of country—small belts—between here and Cobborah, which are not suitable for agriculture, but they contain very good timber, in the shape of ironbark, gum, and box, which would be very useful for the construction of railways; and there is a saw-mill on the Goodaman Range, from which nearly all Mudgee is supplied with hardwood.
1841. Is the land along the Goodaman range suitable for agriculture? A great deal of it is. Of course, there are some portions which are not suitable for agriculture; but the lands extending right along the surveyed line from here to Cobborah, including Tallewang, are highly suitable for cultivation, and there appears to be a desire to develop that industry in this district to a much greater extent than heretofore. We have had many applications to take land on terms such as we never had previously. During the last twelve months this has been particularly the case. There seems to be more anxiety now to take these lands for agricultural purposes.
1842. Working on what is called the share system? Yes; we have had several suggestions of that sort made to us, and we have entered into some such arrangement. There is also the Cudgebegong country. That is highly suitable for agriculture, and is being largely taken up for that purpose.
1843. What do you call the Cudgebegong country? It is on a creek known as the Cudgebegong Creek, which rises up near the Goodaman Range, and runs down into the Cudgegong River.
1844. Running parallel nearly with the surveyed route? Yes, pretty nearly so, and within a few miles.
1845. What percentage of the country lying between Gulgong and Cobborah would you say was suitable for agriculture? I should say fully one-fourth.
1846. And what would the balance be good for? Pastoral purposes.
1847. How much? I think nearly the whole of it. There are a few belts of scrub, but they are not of very great extent.
1848. What would be the extent of valueless country; I suppose there is some nearly valueless? Yes; there is some about Blackheath, coming from Cobborah, and that way.
1849. Bad scrub, infested with dogs? Well, not so badly infested with dogs. Selectors and others are able to run their sheep without shepherding them. Then at Cobborah both up and down the Talbragar there is a large extent of agricultural land which is daily being developed for agricultural purposes.
1850. River flats? They run considerably back from the river, and consist both of black and red soil.
1851. Running across further to Mundooran,—do you know that country? After leaving Cobborah you get into rather barren country but with splendid timber, including ironbark, box, and pine. The pine and ironbark are especially good.

- R. Rouse,
junr.
2 April, 1898.
1852. There is practically a portion of country lying between Cobborah and Merrygoen that would be only valuable for the timber which it contains? Yes, practically so.
1853. Then from Merrygoen on to Mundooran the country is suitable for pastoral purposes? For both pastoral and agricultural purposes (say) about one-third for agricultural and two-thirds for grazing.
1854. I presume you have occupied your properties out there principally for grazing purposes? Principally for sheep and cattle. We have recently let some areas at Cobborah on the share system and we are about to dispose of our Yarragrinn property, about 12 miles from Mundooran. The greater part of the land about there has been alienated from the Crown; I think it would be highly suitable for agriculture.
1855. That country is practically the country lying on the western slope of the Warrumbungles? Yes.
1856. With a gradual fall to the west? Quite so. Some small crops that we have grown there have been highly satisfactory. There has been got as much as 40 bushels to the acre on parts of that country.
1857. How much of that land about Yarragrinn do you think would be suitable for agriculture—thousands of acres? Yes. In one block near Yarragrinn, with a few exceptions, I think we could get from 30,000 to 40,000 acres. Most of that has been alienated from the Crown. The 72,000 acres of land which we held on Yarragrinn under occupation license has all been alienated in the form of settlement leases with the exception of 14,000 or 15,000 acres.
1858. It is probable that extensive agricultural operations will be carried on there, the soil being so suitable? I think the soil is very suitable, but in the hands of those to whom it has passed I do not think it will be devoted to agriculture.
1859. Is there not a possibility of their finding out that agriculture pays better than grazing? I should think so.
1860. From your own experience you seem to think that agriculture will be a more profitable occupation than sheep-farming? I have no doubt of it, especially after having obtained such information as I have done from Mr. Mack and several others in the Dubbo district as to the amount of revenue they receive from land let on the share system.
1861. So that there is every possibility of an enormous area of land being put under cultivation? I should think so. It is only reasonable to suppose so.
1862. It is only natural to suppose that if the occupiers of land in suitable positions found that by cultivation they could very largely increase their annual income they would make every effort to do so? Quite so.
1863. In that case the market which you in Gulgong now have in the north and north-west country might be taken away from you by residents nearer to that market? I do not think that is at all improbable, and that they may supply Mudgee with grain, and also Coonamble and Walgett. We have only recently sold Wallumbrawang. This property consists of about 3,000 acres, and we sold it to Mr. James Yeo, of Cobborah. I was not aware, until Mr. Yeo placed a memo. in my hand just now, that he was likely to go in for agriculture there, but the land is highly suitable for that purpose. Out of the 3,000 acres I do not think there are 100 acres of bad land. This property is 12 miles further on than Yarragrinn, and consequently nearer to Coonamble. It is on the slope of the Warrumbungle. I may add that below Cobborah, on the Talbragar River, and Sandy Creek, there is a large area of agricultural land which is being well developed. Passing on from Wallumbrawang, you go by Toorawhena, and further on to Tondaberine *en route* to Coonamble. All that country is chiefly black soil. You get on to plains. You leave the Warrumbungles behind you, and pass on to Coonamble.
1864. Through first-class pastoral country? Yes, all good country.
1865. Excellent fattening country? Quite so, and I think that under favourable circumstances, say by irrigation, you could grow anything there. It is generally admitted that the black soil will grow anything so long as you have sufficient moisture.
1866. Does your wool go to Mudgee? Yes.
1867. What do you pay from the furthest out-station for carriage? Our furthest out-station is Yarragrinn, and we pay from £2 10s. to £3 a ton.
1868. Coming nearer to Cobborah? We pay about £1 from Cobborah.
1869. And from Gulgong to Mudgee, I presume you pay the ruling rate? Yes; about 7s. 6d. a ton. Very often, when we have no return loading from Mudgee, we pay 10s.; but when we have loading both ways for the teams we pay 10s. one way, and 5s. the other, making an average of 7s. 6d.
1870. Having heard the evidence given by Mr. Young;—can you, from your knowledge of the district, and your long residence here, corroborate that evidence in every material respect? Yes; in every material respect I think Mr. Young is right.
1871. You think there is a great future for this district with regard to agriculture, on account of the soil and climate being favourable? Yes, I think so, provided we have means to convey our grain to market. Without that our district will be isolated.
1872. How far could you carry grain by road profitably;—what would be the furthest distance away from a railway at which you could grow grain, and carry on farming operations? It would depend upon circumstances. In some years, when grain has failed in other portions of the Colony, and prices are more remunerative, it would pay to carry a longer distance, and so on.
1873. If a line were constructed through the country you describe, would it serve the land 20 miles on either side of it? Yes, I think so. I think it would serve the country for a distance of fully 30 miles on each side.
1874. You think they could carry on farming operations? I think under favourable circumstances they could. I endorse the statement of Mr. Young, that our average rainfall is from 24 to 25 inches. We have never suffered in this district from the extreme drought to which many other localities are subject. In the very worst of seasons, when we have had our stock dying outside through starvation, we have been able to bring in a considerable number of them to this district, and maintain not only those already on the country, but a good many others. This country does not cut up as much as the country further west. It is not as rich, but it stands better. It is not as fattening, but it is a healthy sound country. We do not suffer from fluke, or anything of that sort.
1875. The country does not suffer from drought in anything like the way the north-western country does? No, nothing like that. We have owned stations down on the Macquarie and on the Barwon, and we have suffered very much more from drought there than we have ever done here.
1876. In fact, as far as the Mudgee district is concerned, you hardly know what drought means? Nothing like

- like what we have experienced at Warren. We had a station on the opposite side of the river to Warren, and we experienced very much greater droughts there, and also on the Barwon, than we have ever done here. In reference to the question of railway extension and the advisability of opening up the country between the north-west and western lines, with a distance of about 100 miles between the two, if that country were intersected, it would tend to make the Mudgee line pay, instead of being the white elephant it now is.
1877. The objective point is Coonamble. You know the district, and you think it is entitled to railway communication from its present importance, and its possible future development? I quite think so.
1878. Do not you think that even in the event of no agriculture being carried on in the vicinity of Coonamble it would almost pay to run a light line of railway there for pastoral products alone? I do.
1879. The Coonamble district and the country beyond is wonderfully good fattening country? You could not get better.
1880. I presume the bulk of the fat stock sent away comes to Mudgee to be trucked? Yes, to Mudgee and Rylstone. They leave Mudgee to the right and go on to Rylstone.
1881. So that this is practically the stock route for the whole of that north and north-western country? Yes.
1882. They prefer to come here rather than go to Dubbo? They have a longer trainage journey from Dubbo, and the lines have not been fenced off through this district to such an extent, and they have a better chance of getting the stock to the trucks in good condition.

R. Rouse,
jun.
2 April, 1898.

George Steele, sergeant of police, Gulgong, sworn, and examined:—

1883. *Mr. Roberts.*] What are you? Sergeant of police in charge of the Gulgong district.
1884. Over what area of country do you patrol? About 15 miles in a north and westerly direction from here, about 10 miles in a southerly direction, and about 15 miles easterly.
1885. How long have you been stationed here? About eleven years.
1886. You have an intimate knowledge of the district and the people? Yes.
1887. Do you regard it as a progressive district? Yes.
1888. The people are doing fairly well? Fairly well.
1889. Do you think it would be in the interests of the State to make a railway from Mudgee to Coonamble, or, if not to Coonamble, to some other point in a north-westerly direction;—have you any evidence to offer on that point? I know the country pretty well all the way to Coonamble, and I know there is a vast extent of country between here and Coonamble that is fit for agricultural as well as pastoral purposes. I lived at Mundooran for a few months, and I was a couple of years at Coonabarabran.
1890. What is the country like between Mundooran and Coonabarabran? There is some very fine agricultural country all along the Castlereagh from Mundooran up to Coonabarabran and to the Warrumbungles.
1891. Is it wide, or confined to the banks of the river? Out from the river a considerable distance there is good agricultural country. The Warrumbungle Mountains are some distance off the river. Yarragrin is about 12 miles away from the river, and Curban is the same distance further on in the direction of Coonabarabran.
1892. Have you any point in your mind's eye where this line ought to go to from Mudgee;—say it came from Mudgee to Gulgong, to what point do you think it should be taken in order to serve a large agricultural population? I think it should go through Tallewang, cross the Talbragar near Cobborah, and thence, *via* Mundooran, to Coonamble. I think that is the best route the line could take in the interests of the country generally.
1893. I suppose the traffic by team from Coonamble to Mudgee goes through Gulgong? Yes; but there is not much team traffic now from that direction, as Dubbo is nearer. Most of it goes to Dubbo.
1894. Where would Dubbo cease to have an effect upon the traffic of the West? At Mundooran. I think from Mundooran the trade would come on to Gulgong and Mudgee.
1895. Would you suggest a line from Mudgee to Mundooran;—would that meet the case from your point of view? Yes; but not to stop at Mundooran.
1896. You think it ought to go on to Coonamble? I think so. You could carry a line from Mundooran to Coonamble through good country, a great deal of it being Crown lands.
1897. Is there much traffic to Mudgee from Coonabarabran? No; the traffic from Coonabarabran goes to Gunnedah or Quirindi.
1898. Do you know the country between Warren and Coonamble and between Dubbo and Coonamble? Yes; I have travelled over that country.
1899. How long ago? Eighteen years ago.
1900. Are you able to speak as to the settlement or the class of country? From Gilgandra to Dubbo I do not think the country is particularly good. It is ironbark country and oak country, if my memory serves me right.
1901. With regard to the mining prospects of Gulgong, can you tell the Committee whether the production of gold has increased during the last few years? It has increased. There was a very large increase last year over the year before, and the year before that over the previous year. I can give fairly accurate returns in reference to mining.
1902. Is the mining development at Gulgong improving every year? Yes. Up to the end of 1897 it has improved very much.
1903. Is much capital brought here? I understand that one gentleman brought capital to the extent of £20,000, and a lot of money has been expended by a company who have obtained good machinery to work wet ground. There is another mining venture just started, called the Shellback, and some machinery has been landed on the ground. Mr. Thompson, of this town, has floated the Happy Valley Company, and has just landed a battery on the ground for the purpose of crushing; they have tried to develop quartz reefs. Hitherto the mining has been principally alluvial, but now they are turning their attention to quartz.
1904. Is the increase in the annual yield of gold owing to new ground being opened or to the further development of old claims? Last year and the year before there was some new ground opened. A rush down the river at Yamble produced a fair quantity of gold.

G. Steele.
2 April, 1898.

1905.

- G. Steele.
2 April, 1898.
1905. Is Gulgong languishing for the want of capital to develop its mining resources? Yes, I think so. I believe there are properties about Gulgong that would pay if we could get capital to develop them.
1906. For what purpose? Quartz-reefing. They have found gold in quartz, lately, associated with pyrites, rather refractory to deal with.
1907. Have any reports been obtained as to the character of these refractory ores? Some parcels have been sent away for assay and have returned 2 ounces or thereabouts to the ton. Other stone that I have seen I am quite certain would yield a better return than that.
1908. Is it the opinion of persons on the field qualified to speak on the subject, that Gulgong would make rapid strides in mining if a large amount of capital came to the rescue? Yes; that is the view of those qualified to express an opinion.
1909. Are the majority of the mines dividend-paying;—are they owned by joint-stock companies or syndicates, or are they owned individually? Just now there is only one company at work—the Star Company—that has had any return. The others—the Shellback and the Happy Valley—are only just about starting, and have had no opportunity of proving whether the mines are payable or not.
1910. Are there any mines at all on Gulgong that are dividend-paying? There are no public companies.
1911. Have you reason to believe that those who own these mines are being remunerated in a satisfactory way for their labour and capital? The only company that has worked has not been remunerative.
1912. Is there only one mine that is regarded as what I might term first-class? There is only one in working order—that is one that has been any time at work. There are others just starting. They have never paid a dividend, and are working now in deep ground, at a depth of 180 feet. That is the lowest depth at which gold has been found at Gulgong.
1913. What other mines are there that help to make up the annual increase in the production of gold? There have been several claims at Helvetia.
1914. What course ought to be pursued with the view of extracting gold from this refractory ore;—I mean is it merely a question of want of capital, or is the *modus operandi* sufficiently clear for you to say that if capital were forthcoming you feel satisfied the annual production of gold would show a marked increase? With regard to the refractory ore to which I have referred the gold could be extracted by machinery similar to that at work at Mitchell's Creek, because I understand the stone is similar, except that the stone here shows free gold, and at Mitchell's Creek it does not.
1915. Do they deal with it successfully at Mitchell's Creek? Yes.
1916. Would it involve the purchase of expensive machinery to deal with this ore? Yes; it would have to be done by the cyanide process, I understand.
1917. How many ounces of gold to the ton of quartz are obtained with the improved machinery at Mitchell's Creek? I am informed that the return is from 1 to 2 ounces; but I do not know of my own knowledge. The stone previously found here was not refractory.
1918. Can you say how many ounces of gold per ton will pay? I think that depends on the quantity of stone.
1919. Do you regard yourself as an authority on mining matters? No.
1920. What is the exact distance between Gulgong and Mudgee? About $17\frac{1}{2}$ miles.
1921. Is there much cultivation between here and Mudgee? Yes, in the direction of the Canadian there is cultivation all the way to Mudgee. That is one road, the distance by which is 18 miles.
1922. How far after leaving Gulgong does the cultivation commence in the direction of Mudgee? The cultivation is right up to the town, or less than a mile out.
1923. If a railway were built from Mudgee to Gulgong do you think the people along the road between Mudgee and Gulgong would make use of it? Yes; I think so.
1924. Would not a railway from Mudgee have to go in the direction of Cobborah and on to Dubbo and Coonamble to be of any great service to Gulgong? Yes, I should say it would; it would have to go west or north-west.
1925. A railway coming from Mudgee to Gulgong, and no further, would be of no great value to the Gulgong people? No; it would make a difference of 17 miles; that is all.
1926. All the local produce that comes from Gulgong comes from the direction of Cobborah? The greater portion of it. Of course, it would improve Gulgong considerably if the railway came this far, and if this were the terminus.
1927. But it would be no good for the farming population at Gulgong unless it went a considerable distance in a north-westerly direction? It would serve the purpose much better by going north and north-west. I hand in the following statistics with regard to wheat cultivation and mining:—

TABLE showing the area under wheat, and the yield for the years 1895, 1896, and 1897, within a radius of about 12 miles from Gulgong:—

Years.	Area under wheat for grain.	Yield.
1895.....	1,740 acres	13,849 bushels.
1896.....	3,044 "	34,000 " "
1897.....	3,525 "	52,875 " "

MINING Business transacted at Gulgong, and gold won during the years 1894, 1895, 1896, 1897.

Years.	Number of Miners' Rights issued.	Number of Gold Leases applied for.	Area of Leases.	Gold won.
			acres.	oz.
1894.....	237.....	10.....	76.....	1,436
1895.....	385.....	4.....	22.....	2,298
1896.....	487.....	54.....	425.....	4,000
1897.....	653.....	30.....	212.....	7,000

The approximate population of district is about 3,000. There are several thousand acres of private and Crown lands about Gulgong suitable for agricultural purposes, still in its virgin condition. The prospects for the profitable development of mining are very encouraging.

Edward

Edward McCulloch, Council Clerk, Gulgong, sworn, and examined:—

1928. *Chairman.*] You hand in some statistics with regard to the population of the district and other matters showing its development? Yes; they are as follows:—

E.
McCulloch.
2 April, 1898.

MUNICIPAL DISTRICT OF GULGONG.

Parishes of Gulgong and Guntawang, county of Phillip, area 20,480 acres. Incorporated February 6th, 1876. Approximate population, 2,000. Dwellings, about 500. General rate only of 1s. Fair average annual rental of improved land with buildings thereon, £8,500. Capital value of all ratable property, £200,000. Roads and streets, about 60 miles, of which over 40 miles are metalled.

Statistics as to live stock, yield of grain, and area of land owned, these are collected by the police, who will furnish them, the municipal district being included in the police district.

As one of the council's valuers for some years past, I can state that each year the assessment increases. Wooden buildings will soon be a thing of the past. I have regularly attended the land sales here, at which the bidding was spirited; and at the last auction sale, in July, 1897, the few pieces not bid for were secured after auction under the 1895 Act. During the past year or so thirty homestead selections have been taken up within the municipal boundaries, which, besides the town, includes Guntawang, Canadian Lead, and Springfield. On the road from Gulgong through Canadian there are 6 miles of farms on each side of the road.

John Tuxford, Mayor of Gulgong, sworn, and examined:—

1929. *Mr. Hassall.*] You have been a resident of the district for a considerable number of years? For about twenty-four years. J. Tuxford.
2 April, 1898.

1930. Were you in the town of Gulgong when evidence was taken by a Sectional Committee inquiring into a proposed railway from Mudgee to Gulgong in 1890? Yes.

1931. On this occasion you have heard the evidence given by Mr. Young, Mr. Rouse, and Sergeant Steele; can you, from your own knowledge of the district, corroborate the statements that have been made by these gentlemen? I certainly can.

1932. You can swear that, to the best of your knowledge and belief, the statements are reliable and truthful, and give a correct idea of the district and its surroundings, and also its suitability for agricultural purposes, and in comparison with pastoral pursuits? Yes.

1933. You are perfectly satisfied with the prospects the district holds out? Quite satisfied.

1934. Not only to yourself, but also to others who come to reside in it? Yes, I am quite satisfied.

MONDAY, 4 APRIL, 1898.

[The Sectional Committee met at the Court House, Mudgee, at 10 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. CHARLES JAMES ROBERTS, C.M.G. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Warren to Coonamble.

The Hon. George Henry Cox, M.L.C., sworn, and examined:—

1935. *Chairman.*] You are a Member of the Legislative Council of New South Wales? Yes.

1936. Would you like to make a statement? Many years ago, when the Mudgee people were agitating for a railway, their proposal was that a line should be made from Wallerawang to Walgett, and they ignored the idea that it was a mere branch line. They contended that it was a main trunk line—no doubt branching off from another main line, but a trunk line to connect with the great north-west. The Bourke line was supposed to be the Western line. After some considerable trouble which we had with the Government they at last authorised the construction of the line. The estimated cost from Wallerawang to Mudgee was £680,000. On observing the route, they found that they could not get down very readily into the Mudgee Valley; so instead of coming direct to Mudgee by the coach road, which would have been much the shorter line, they turned off at this side of a hill, called Cherry-tree Hill, to go to Rylstone, making a turn almost at right-angles, and increasing the length of the line. When we saw the plan we suggested that it seemed to be an extraordinary thing to make this great angle. Why could they not go by a more direct route. We saw Mr. Whitton, and he said it seemed possible, and proposed another route. He accordingly sent the surveyors up again, and, unfortunately for us, they did get across this angle; but they went into the valley of Capertee, and thus commenced all the trouble. Whatever was the cause and who was to blame we do not know, but in the new specifications drawn up for the construction of the line there was a remarkable omission. This line over the Capertee Valley crossed a series of little hollows, just under the rocky wall of the mountains. The formation was a jumble of rock, clay, sand, and gravel all mixed together, and falling over the mountain side at an angle of about 45 degrees. There was a series of little ridges and gullies. The specifications stated that these rocks, or solid matter, had to be pierced through and the valleys had to be filled up from the cuttings through the hills. Unfortunately they forgot to put in the specification any provision for culverts, and the contractor had merely to cut through one hill and fill up the next valley, and so on. It would have been a series of dams between each of these hills. It was discovered that they had made some blunder, but the man had already taken the contract, and consequently he had got the Commissioners "on toast," and could do what he liked. That caused very great expense. Then these so-called hills supposed to be rock, were tested. They were to a certain extent rock. They were not soil, but instead of being solid rock they were just a conglomerate of rock, sand, gravel, and rubbish. The cuttings were to be perpendicular, but it was found that they would not stand if perpendicular, and the contractor had to make the usual slope. But the usual slope was no use, a much greater slope was necessary. It was like tilting over a load of sand on the street—you take away a portion of the sand and down comes the other sand to fill up the place. So with this. When wet weather came, no sooner did you cut the foot of the slope, than the earth slipped in and filled up the space again. That went on for some time, and various other mishaps occurred. The consequence was that, instead of this railway costing £680,000 it cost over £1,200,000. We are losing about £20,000 a year by this railway. But that loss is attributable

Hon. G. H.
Cox, M.L.C.
4 April, 1898.

Hon. G. H.
Cox, M.L.C.
4 April, 1898.

attributable to the fact that this extra expense was incurred. If the railway had been constructed at the original cost it would have been a paying line. But when you have spent £500,000 or £600,000 more than you ought to have done, that amount at 4 per cent. makes up the £20,000 for which we are deficient. So that we are actually losing money in consequence of the extraordinary expenditure that took place on this line, only 84 miles in extent. It was a cruel thing to do, because it has given the Mudgee railway a bad name, and for a long time it was a losing concern. The expense incurred in removing the slips in this wretched piece of country was something enormous.

1937. Do you regard the half a million extra expenditure as attributable to ignorant engineering? Yes, absolutely. Since then the line has been made suitable, and it is now, I think, thoroughly good. I do not think there will be any danger in the future. The Commissioners are fully satisfied that the line is not likely to cause any expense in the future. I need not dwell at any length on the evidence I now wish to give, because it is pretty well all down in Mr. Jones' very exhaustive report. But there are one or two matters to which I should like to draw attention. On page 2 of his report Mr. Jones states:—

The most valuable factor, however, for consideration is the enhanced value given to all unalienated land within a reasonable distance of a railway—entirely due to the speedy and valuable transit facilities afforded by the latter. Why should persons on the usual conditions obtain land, the value of which is often doubled or trebled by the existence of a railway, and the State be expected to make and maintain such line at a loss? I certainly think that all unalienated lands within 20 miles of pastoral railways should be valued and converted into special areas, the increased amount over the payment that would be received were the line non-existent could be easily ascertained, and, if deemed advisable, credited to the cost of constructing the railway. This is no new idea, as may be seen by the following extract from the Railway Commissioners' Report, dated December, 1888:—

In connection with the Grafton to the Tweed Railway, the Commissioners reported as to the necessity of retaining unalienated lands for the purpose of writing off a certain amount of the capital spent upon the railways. I think it is an exceedingly desirable plan to adopt, but, unfortunately, the suggestion of the Commissioners has not yet been carried out. I think it would be most desirable to impress this matter again and again upon the Government, pointing out the necessity of the adoption of the plan proposed. When we make railways at great expense, and the country benefits by the increased value given to its land, those lands ought to be used in reduction of the expenditure upon the railways. Then, again, there is another remark in Mr. Jones' report which is applicable to all the roads now being constructed in the far western country. I refer to the last paragraph on page 2, in which he speaks about the black soil. The Members of the Sectional Committee must be quite aware, from the experience gained in their various trips to different parts of the country, that it is easier and cheaper to make a railway over black soil than it is to make a road. There is no metal available in this black soil country, and it is almost impossible to make a road, and even if it were possible, the expense of maintaining the road would be so great that a railway would be cheaper, besides which, of course, we get a revenue from a railway but get no revenue from a road. On page 8, we come to Mr. Jones' report on the Mudgee to Walgett railway:—"Length, 210 miles; estimated cost, £943,300." A more recent estimate has been made which, I think, has reduced that amount by about one-half. If I do not mistake, the amount now set down for that line is about £628,000. I wish to draw particular attention to the figures given in this report. It was drawn up in the year 1891, and since then there has been a considerable increase in the various items, and especially in regard to the land under cultivation. On page 10, I find, "The total trafficable area includes 12,473,887 acres, of which 9,473,720 acres remain unalienated." The area of the land under cultivation is given at 6,000 acres, but in the last seven years I am quite sure this has increased at least 50 per cent. Then we have the population set down at 15,777, and with regard to the stock traffic, we have 55,000 cattle, and, say, 5,000,000 sheep. I daresay there is some little discrepancy as regards these latter figures, because, instead of an increase, I am sorry to say they are now somewhat reduced. Then, as to the distribution of traffic, Mr. Jones says:—

At present the traffic from the district through which this line passes is distributed as follows:—The first 100 miles—to Mudgee; Coonabarabran and Baradine districts—to Gunnedah.

I wish to make a remark here as to the country between Coonabarabran and Baradine. That traffic does not go to Gunnedah. From 30 miles beyond Coonabarabran the traffic comes here. There are two large stations—Goorianawa and Calga. All the wool from these stations comes to Mudgee, a distance of 170 miles, in preference to going to Narrabri, a distance of 78 miles. Then Mr. Jones goes on to say, on the same page:—

In trying to form some idea of the traffic for a line to Mudgee, I find the wool tonnage for existing sheep would be 2,044 tons, to be carried an average of 50 miles; 4,613, 143 miles; and 4,994 tons from Walgett, 210 miles.

This in the aggregate, of course, means a very large trainage. I notice that in the evidence given, I think, by Mr. Harper of the Railway Department, that gentleman ignores all this traffic, and says that the traffic from Coonamble to Mudgee would be inappreciable. No doubt it would be inappreciable, because now we have these contending routes. Nevertire, Dubbo, Narromine, and various other places all receive wool from the Castlereagh River, and if a railway were carried from here to Coonamble, down the Castlereagh, it would get the whole of the traffic which is now to a large extent diverted by the Western line. Then, in the event of the railway being extended to Walgett, it is not Walgett that we think so much about, because Walgett itself is only a poor place, but it is the centre of a very large trade on to the north-west towards the Queensland border. There is some of the finest pastoral country in Australia beyond Walgett, on the flats of the various rivers which come down from the Condamine in Queensland—the Narran, the Birie, and the Culgoa. The traffic from this country would all centre towards Walgett. At present a good deal of it goes down to Bourke, but Walgett would save a certain distance of land carriage. On page 11 we come again to the question of the increment on the 7,000,000 acres. Mr. Jones says:—

Assuming, therefore, that 7,000,000 acres will be increased in value, averaging 10 per cent. over the whole area, the sum realised would be £700,000, included in which would be the greatly enhanced price likely to be obtained for allotments in the various townships passed through and served, also the value of timber forests now almost worthless, and the sum obtained for land, which, without a railway, would never be occupied or taken up.

This bears upon my opening remarks with reference to the opinion of the Commissioners. The chief thing we wish to bring under your notice is explained a little lower down on the same page, where Mr. Jones says:—

The projected railway, as may be seen on the map attached, fairly divides the present unserved country lying between the western and north-western lines, and is the shortest and most direct route from Walgett to Sydney.

This is a matter to which we strongly urge your attention. The whole of the country from the Bogan on
one

one side, and the Namoi on the other, is now left out in the cold. It has no railway communication whatever, and it embraces an enormous and very valuable tract of country. It is only fair that the whole of the inhabitants of that very large tract of country should be served by the proposed railway to Coonamble and Walgett. Then Mr. Jones says in the next paragraph:—

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It will bring into full use the present costly line from Wallerawang to Mudgee, which has recently been improved at a large expense, and is now fitted to carry any extra traffic which may be brought on to it.

It will be seen on looking at the map how large is the extent of country that would be served by this railway. The existing Western line runs on the west side of the Bogan, and leaves the whole of the Macquarie, and the whole of the Castlereagh, and the other various creeks out in the cold; and you can easily observe what an enormous extent of country would be served by the proposed extension from Mudgee to Coonamble and Walgett. On the other hand, the railway from Warren to Coonamble would merely tap a very small portion of that country; it would leave all the better portion, the more agricultural portion, out, because between Mudgee and Coonamble is to be found the agricultural portion—beyond Coonamble the country is purely pastoral. With regard to the extensive area of plain country in the west which would be affected by a line from Warren to Coonamble, in my opinion, except in patches, where the soil becomes red, or where there is a certain class of timber growing, it is not suitable for the growth of cereals. In support of this opinion, I would point to the present state of accessible land somewhat similar on Liverpool Plains. Black soil country is not suitable for agriculture. In 1890, I happened to be a Member of the Public Works Committee, and at that time the Sectional Committee was sent up to Mudgee to enquire into a proposed extension from Mudgee to Gulgong. I did not come up to Mudgee myself, because, being a local man, I thought it desirable I should not appear; but when the Sectional Committee made their report in Sydney, I moved the following resolution, which appears on page 11 of Mr. Jones' report:—

That, in the opinion of the Committee, it is not expedient the proposed railway from Mudgee to Gulgong, as referred to the Committee by the Legislative Assembly, be carried out, they being of opinion that any extension of the Mudgee railway should form part of a more comprehensive proposal, the consideration of which should be deferred until after a suggestion for a connection of the Northern and Western systems by a line between Dubbo and Werris Creek has been dealt with.

The line between Dubbo and Werris Creek was put in the resolution because it was thought that was the proper way to word it, that line being then under discussion. My wish was to have a line from Mudgee to Coonamble or Walgett. However, that resolution was carried and the proposal to construct a railway from Mudgee to Gulgong was negatived. In speaking of the merits of the Mudgee line, I do not wish to say very much about the other lines, because it is not my place to depreciate other lines, except in a very cursory way, and I will merely state that the line between Warren and Coonamble is very subject to floods, and I believe it will cost more than the sum estimated. Although it is a very level line, you have to cross a number of creeks, as will be seen in Mr. Jones' report, the last paragraph on page 11.

Between Nevertire and Coonamble the following rivers and large creeks have to be bridged:—Beleringar and Crooked Creeks, near Warren; the Macquarie River at same; Ewenmar, Marthaguy, Merrigal, Wemabung, Bullagreen, Merri Merri, and Nedgery creeks.

So that the estimated cost of £150,000 would, I am afraid, be very far short of the actual expenditure. It is all very well to say that you can make railways on these plains. No doubt you can; but with all these various creeks and the flooded plains, the cost would be very large, and in many seasons it would be impossible for the railway to carry the traffic. It would be necessary to have no less than eleven bridges on the line. The next important question is the difference in the distance. I notice by the evidence of the railway authorities that they favour the Warren to Coonamble line, because it would cost less to the country. But they altogether ignore the fact that if that line were constructed the unfortunate people of Coonamble would have to pay for all time on an extra haulage of 80 miles. Of course the Railway Commissioners do not care how much haulage is put upon the unfortunate people—it all means money in their pockets; but is it fair to the Coonamble people to charge them some 80 miles extra haulage for the benefit of the Railway Department. I say we are not to serve the Railway Commissioners; our duty is to serve the community, and the greatest number, and I contend that the greatest number would be served, not by the Warren to Coonamble line, but by the Mudgee to Coonamble line. I do not mention anything about the Dubbo to Coonamble line, because I think that is pretty well out of the question. From what I know of it and the country it goes through, I do not think it probable that it will excite much attention. With regard to the country between Mudgee and Coonamble, the Members of the Sectional Committee have themselves seen the country between Mudgee and Cobborah. Beyond Cobborah there is a piece of country that is not first-class—certainly rather a poor piece of country—going towards Merrygoen. But when you once get on to the Castlereagh you get first-class country, although there are one or two patches even on the Castlereagh that are not first-class, but they are very very small.

1938. And from Merrygoen to Mundooran what is the country like? It is all fair country. The only really poor part is after you leave the Talbragar, when you get into some poor country, towards Merrygoen.

1939. And from Mundooran to Gilgandra? That is also rather shady country, this side of the river. The good country is on the opposite side. You get into very good country at a place called Caigan, and further on you get very good country. Of course, there are little patches here and there somewhat inferior; but taking it all together, it is really good country. One of the arguments against the railway being extended from Mudgee is that we are cutting our own throats—we are giving facilities to the people in the country round by the Warrumbungles to grow wheat in opposition to ourselves. That may be the fact; but it is a very paltry, selfish way of looking at the matter. I am a very large agriculturist here with tenants, but that does not weigh with me at all. I contend that the people who are settled out there have as much right to railway communication as have the people about Mudgee. The railway has given a great impetus to farming operations in Mudgee, and I contend that people in other districts should have the same facilities given to them, and if we cannot hold our own, so much the worse for us. At the time when Mr. Jones made his inquiry and visited the various places, the consensus of opinion was, he said, all in favour of the Mudgee to Coonamble railway. He said that at Dubbo they did not seem to care very much about it; at Coonamble there was a strongly expressed preference for the Mudgee route, and at Coonabarabran the same, and he said that at various other places which he visited they expressed a similar view. Again, on page 22 he says "At Warren little interest appears to be taken

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in the railway proposals." In giving his conclusions, Mr. Jones, in paragraph 6, expresses his opinion very freely, and evidently he had quite made up his mind on the matter. If you look at what he says in that paragraph you will see that he had reason for the very decided views he adopted. In paragraph 7 he lays particular stress upon the fact that a line from Mudgee to Walgett—

Will divide almost equally the unreserved country, so that on either side nearly all will be within the influence of existing or proposed railways.

Will serve a present population of nearly 16,000.

Will pass through the following important towns—Gulgong, Coonamble, and Walgett, while Coonabarabran will be well served, also many other smaller townships, and the rising mining centre of Stuart Town.

Will develop the important agricultural resources of Gulgong, the Talbragar Valley, Warrumbungles, and Coonabarabran.

Will have a large fat-stock traffic, embracing as it does within its influence close upon 5,000,000 sheep, exclusive of any from Queensland; and as the Mudgee line is the shortest and most direct route to Sydney, it is not too much to assert that it would be taken advantage of more so than any of the other projects, all of which have a longer mileage to the metropolis.

Includes within its trafficable sphere about 12,000,000 acres, of which 9,000,000 are still unalienated.

I may mention that the railway from Wallerawang to Mudgee has but one train a day, and, unfortunately (Mudgee occupying only a confined area), we are not able to extend the traffic, which, of course, is to the detriment of the railway and the whole community. If the line could carry two or three trains a day, which it would do if it were extended on towards Coonamble, it would become a paying railway. As I have already said, it would be paying now but for the unfortunate expenditure originally occurred through official blundering. But if, having only one train a day, the railway pays to a certain extent, how would it pay if it had only cost what it ought to have cost, and if we had three or four trains a day instead of one. If you will look at the Appendix relating to population and cultivation on page 30, you will see that the Mudgee line would serve a population of 16,000 people, and on page 31 you will find that within the sphere of the proposed railway there are 2,203 school children, that number being infinitely in excess of the number of school children on any of the other proposed routes. These figures were compiled six or seven years ago, and, of course, the population is a great deal larger now.

1940. *Mr. Roberts.*] Which would be the nearest station on the Western line to tap Mudgee—Wellington or Dubbo? Wellington. It is only 60 miles from Mudgee to Wellington, but it is 90 miles to Dubbo.

1941. Are the people settled on the country through which a line to either of these places would pass equally favourable to railway communication, or do you think one route would be better than the other? I think both these towns of Wellington and Dubbo are anxious to be connected with the Northern line. I do not think they care twopence about this line. I think their great idea is to be connected with the Northern line. There is great rivalry between Wellington and Dubbo to be connected with Werris Creek; anything else they look upon as immaterial.

1942. In the event of the Mudgee to Coonamble line not being constructed, would it be of any great advantage to Mudgee to be connected with Dubbo or Wellington? No; we should then prefer to be connected with the line that would connect the Western with the Northern line. That would be about Cobborah. It would be hardly worth our while to be connected with either Dubbo or Wellington; but, in the event of our not getting a railway to Coonamble, it would be very desirable that we should be connected with a line that would connect the Northern with the Western system. I may mention one fact to show the necessity of railway communication. Sydney, of course, is the great centre, but Sydney would not be our best market. In the year 1888 there was a very great drought through the whole country, and the interior suffered very seriously. It so happened that that year we had very fair crops and large crops of hay. Coonamble, of course, was suffering from the drought terribly. Hay at Coonamble was fetching £20 a ton, and in Mudgee it was only 30s. a ton, and we could not send it to Coonamble. The intervening country was a mere desert, and it was not possible to send our surplus produce to Coonamble; so that district would be a grand market for us as well as Sydney. We should have two markets instead of one, and although they can grow crops about the neighbourhood of the Warrumbungles—no doubt, they have a better rainfall than we have even here—yet it would only be a fair competition. We can compete with them, and if they can beat us, so much the worse for us.

1943. How far would the line from Mudgee have to go to tap most of the agricultural lands? In the neighbourhood of Mundooran and Coonabarabran; that is the best country for agriculture. They have a fine rainfall there, and although the country about Coonabarabran is very poor there are some parts very good. Some of the river flats there are remarkably good, and would grow anything in the world, and there are a large number of people in that neighbourhood. With a good rainfall, people can live on a small area, but in the great western interior a man cannot live unless he has a very large area.

Robert Jones, Esq., M.P., sworn, and examined:—

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1944. *Chairman.*] You represent the Electorate of Mudgee in the Legislative Assembly? Yes.

1945. You have heard Mr. Cox's evidence;—would you like to make a statement? In reference to the railway from Wallerawang to Mudgee, the line was constructed in two sections—first, to Capertee, and then from Capertee to Mudgee. The deviation, as I call it, that was taken from the originally-intended line from Capertee made the line for that 50 odd miles 11 miles longer than it would have been had it been taken from Capertee by the direct road over Cherry-tree Hill, where, I am thoroughly satisfied, knowing the country, there would have been a much sounder and better line. Cherry-tree Hill is on the southern side of the present line. For all time there are 11 miles extra construction and maintenance, which, in my opinion, is a very important item, besides having to encounter the difficulties that were met between Capertee and Ilford station. The heaviest grades on the line are from Brogan's Creek to Capertee, so that they did not ease the gradients nor did they get a better line, but, in my opinion, a very much worse one. This has since been proved, and the line was a great source of expense, until the Railway Commissioners at last determined to alter it, and they put the line out as much as 2 chains in places from the original line. Instead of keeping to the foot of the hills, where the rock was in a sliding position, and where the line cut through the toes of the hills, they kept away out from it altogether and made a new line, and they have never had any trouble since. The Commissioners in their evidence admit that the line will now carry any extra traffic that may be brought on to it. If it will carry one train a day, I take it, it will carry five.

1946. Is the annual loss of £20,000 a year the average loss since the line was opened? No; it has been as high as £33,000. 1947.

1947. Are you able to say whether the loss is annually decreasing? It has decreased very materially, and it is annually decreasing. It is now £20,000 odd as against £30,000 odd formerly. Had the line been brought over Cherry-tree Hill direct from Capertee, though it would not have gone through as good country, a great deal would have been saved by reason of its running through Crown lands, whereas on the route through which it was taken a great deal of the land was private-land, requiring compensation for resumptions and severance.

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1948. Of what does the extra traffic consist that has caused the annual loss on the line to decrease; has more settlement taken place? Yes; there is very much more settlement. When the line was first constructed there was very little agriculture beyond Mudgee. Nine or 10 miles beyond Mudgee agriculture was very little known when the line came here first. Our greatest area of agricultural land was about Gulgong and Tallewang. But they are now cultivating further west from Cobborah; they are going right up on the Warrumbungle Mountains and to Curban. This traffic comes down to Mudgee. They are growing wheat there now extensively. A line from Mudgee going north-west would serve a population estimated by Mr. R. E. Jones in his report at nearly 16,000, including Walgett, and that population has increased considerably since Mr. Jones made his report. The railway would go through the rising and important town of Gulgong, the population of which is increasing. It is a settled population, an agricultural population, and not a mining and migratory population such as existed there some years ago, although a good deal of gold is still being obtained there.

1949. Is not the mining industry at Gulgong languishing somewhat for want of capital? They have entered upon a new era in mining at Gulgong. The field was supposed to be worked out some years ago, but recently reefs have been found which I think will turn out more gold than the alluvial ground ever did. They have had crushings which have gone as high as 50 oz. to the ton.

1950. What is supposed to be a fair average crushing? It is merely in its infancy. They have just one reefing mine going there. They have got a great deal of gold there lately, and apparently the lode is of enormous width—it is yards and not feet wide. The ore is refractory, and they will have to adopt the latest scientific mode of extracting the gold. I have no doubt from what I have seen personally that Gulgong will come again as a gold-field, and produce more gold than it has ever done before.

1951. You are of opinion that any extension of the Mudgee line should go through Gulgong? I am of opinion that it should serve Gulgong and go beyond there; the route it would take, I imagine, would be south and west of Gulgong—of course going to Gulgong.

1952. What you wish to recommend is that it should go all the way to Coonamble? Yes. I do not think it would be a proper thing to construct it piece-meal. I reckon that the railway has only just tapped the commencement of the good country—the best country, such as the Burrundeula flats—than which there is no better in the Colony.

1953. You claim that if a line be constructed from Mudgee to Coonamble, not only will a large agricultural settlement take place, but an admirable market for the produce of the Mudgee district will be found in and around Coonamble? Yes. At times starvation prices have been known to prevail at Coonamble. I have myself paid in Coonamble £20 a ton for chaff, and 20s. a bushel for grain. I had a contract to build a bridge over the Castlereagh, and it cost me £600 odd to feed one team, and at the same time I bought the same class of horse feed in Mudgee for £6 a ton, and grain at 6s. a bushel.

1954. You would look upon the north-west country—Coonamble and beyond that place—as a market? Certainly; they cannot grow wheat on the salt-bush plains. One reason is that wherever you sink for water you invariably get salt water. I have known stations to sink as many as eight or ten wells, one after the other, and get salt water in every one of them. In Coonamble they got salt water. They had to dam it back and go deeper till they got fresh water. In all these plain countries, when the water is first tapped, it is unfit for human consumption. Stock will use it after it has been drawn away for a time, but human beings cannot use it—it is too brackish and salty. This will show that the soil there would kill any vegetation foreign to its nature. I have seen gardens in which, no matter what the rainfall was, or how much water was available, everything would perish. This occurs on the Barwon, the Castlereagh, the Macquarie, and all those rivers.

1955. You heard Mr. Cox describe the class of country between Mudgee and Coonamble; do you agree with what he said? I think the country is even better than as described by Mr. Cox. It is very much better in places.

1956. Will you describe the country from Mudgee to Gulgong, and on to Cobborah, Mundooran, and Collarendabri? From here to Gulgong there is some very good land, especially between here and Slasher's Flat. The country is exceptionally good on the right hand side along by Spring Vale to Gulgong. At Wilbertree, Canadian, and Home Rule, some of the very best land you will find anywhere exists. That brings you close to Gulgong.

1957. The country is undulating, is it not? Yes; there are no ridges of any consequence. It is on these sidings where heavy rich red soil exists that the very best wheat is grown in this district.

1958. Would it be well adapted for vine-growing? None better. Some very fine vineyards, planted within the last ten years, are growing on some of this soil. Mr. Lewis Roth, Mr. John Worth, and Mr. Snelson are all vine-growers, and make wine extensively. They send the wine to Sydney, and some of it has taken first prize. A great deal of this wine goes back Coonamble way, besides being supplied to the surrounding districts. It can be sold as fast as it is made. Then, at Tallewang, the land is exceptionally good. You encounter then a little bit of rougher country, but you again drop on to the valley of the Talbragar, and you get exceptionally good land there. It would be a difficult matter to find better land than that about Redbank, Denison Town, Pine Ridge, and down the Talbragar for a considerable distance.

1959. Can you tell us anything about the mining at Stringybark? Stringybark is handicapped very much. It is thought by the miners that it will develop into a gold-field, but they have been handicapped very much for want of water. There has not been sufficient water to enable them to carry on mining operations as they might otherwise do.

1960. How many miners are now located at Stringybark? The number varies very much. I understand that there are about 500 people there at present, or there were a short time ago. They are a very migratory population just there, on account of the difficulty about water, for although the Government sunk a tank for them, it has not been a very great service.

1961. Are they all making good wages? I do not think I could say that. It is really a prospecting field so far; but a good deal of gold has been got at what is known as Upper Tallewang. Besides serving the town

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town of Gulgong, the line would go through Cobborah and Mundooran. The land around Cobborah is very good wheat land. Thousands of acres of it would grow very good wheat. This is a class of country which extends on to Mundooran. In addition to the town of Gulgong, the line would serve centres of population which you can hardly call towns, but where close settlement has set in, such as Tallewang, Merrygoen, and Redbank. It would also serve the township of Denison Town, Coolah, Coonabarabran, and Baradine—these would be on the north of the line. I have a list of stations the traffic of which would come by the proposed railway to Mudgee, to which place it now comes by road, notwithstanding all the disadvantages. The stations are Biragambil, Weetalibah, Ulindah, Pine Ridge, Binnia, Goorinawa, Gummin Gummin, Logan Downs, Tenandra, Cobborah, Oakey Creek, Biamble, Yarragrinn, Gundare, Baradine, Toorawheena, Tucklan, Browie, Belar, Kanoona, Cullengoral, Mundooran, Bourbah, and Coonabarabran.

1962. Have you prepared any figures, showing the possibility of the line paying if constructed? I have read the report of the Railway Commissioners, which is adverse to this line as far as figures are concerned. They seem to have placed their whole reliance upon a line from Warren to Coonamble.

1963. At present you are cut off from a valuable market in a north-westerly direction? Yes.

1964. You are aware that the estimated cost of a line from Mudgee to Coonamble is £1,000 a mile more than the cost of either of the other lines;—is not this excessive cost owing to the undulating character of the country as you approach Mudgee? I do not think that is a correct estimate, with due respect to those who made it. I think they have very much understated the cost of constructing the Warren to Coonamble line. Mr. Cox in his evidence said that on this line nine bridges would be necessary; but, as a matter of fact, there are eleven bridges, nearly every one being exceptionally heavy.

1965. Do you know that country? Yes; I have travelled over it repeatedly. I have driven stock over it, and know it well, and I have no hesitation in saying that at times it would not be trafficable, either for a railway or anything else.

1966. Do you regard it as a flooded country? It is a flooded country, and the Macquarie and the Castlereagh, which would have to be bridged, are big rivers. Then the Merri Merri will take as big a bridge as either of these two rivers.

1967. Do you regard the Warren to Coonamble country as purely pastoral? I do not think it would be suitable for anything else; I do not think it would grow cereals. It is naturally a salty country; myall and budda timber on it as well as salt-bush. It is a style of country on which I never knew cereals to grow. Very little vegetation will grow on it except what is indigenous.

1968. Have you had experience in farming? Yes; I was brought up on a farm and have had experience since.

1969. You feel quite justified in expressing an opinion as to the value of the land for agricultural purposes? Yes.

1970. Are the people of Mudgee and the surrounding districts unanimous with regard to the extension of that railway? No, they are not unanimous. Where personal interests are concerned, where they think it will interfere with their present calling, some say, "Better leave it as it is." But they are in a great minority. Carriers, for instance, do not want a line constructed anywhere; they desire that the traffic should be left to horses and bullocks. I am satisfied, however, that the majority of the people of the district are anxious, in the interests of the country, for an extension of the railway. Owing to the line not having been taken beyond Mudgee, we are now at a disadvantage, and are left, as it were, behind. We are back a considerable distance towards Sydney, as compared with the starting points of the other proposed routes, and this handicaps us. To reach the same destination as that of the other two lines we are handicapped by the cost of construction over a much greater length of line; but because we have been neglected in the past, I do not think that should go against us now.

1971. By this route the people of Coonamble would have to pay for less haulage, and, I suppose, you look upon that as a very important matter? Yes, it is important.

1972. Is there anything else? Apart from the fact that the line from Mudgee would open up so much good country, it will reach the best timber forest in New South Wales, not excepting the forests of the northern rivers. It will touch Wangan, Pilliga, Therenbone, Killinewi, and Urawilkie, extending right down to Bullarora. There are thousands of acres of some of the finest ironbark country in New South Wales. I have fallen bridge timber there where we have had as many as thirteen or fourteen logs touching each other in falling—all of the very best description of ironbark.

1973. Admirably adapted for sleepers? It is a pity to cut them into sleepers, they are so good.

1974. All the material required for the construction of the railway is available in that belt of country? Yes; sufficient not only for the construction of this railway, but also hundreds of miles of other railways.

1975. Could you tell the Committee anything about the resumption of land and severance? Not a great quantity of land would have to be resumed after leaving Gulgong; there are reserves all the way. After you leave Bellinfante and approach Gulgong you are on a reserve all the way. For the first 9 miles from here to Gulgong it is private land, and for the next 9 miles the land is nearly all in railway reserves.

Charles Devenish Meares, solicitor, Mudgee, sworn, and examined:—

C. D. Meares. 1976. *Mr. Hassall.*] You have been residing here, I believe, for a considerable number of years? Twenty-two years.

4 April, 1898. 1977. You heard the statement made by Mr. Cox, with regard to the line from Wallerawang to Mudgee, and the proposed extension towards Coonamble? Yes.

1978. Do you agree generally with that statement? Yes.

1979. Have you anything to add to it? Mr. Jones, the last witness, was asked if he had any figures to show what the probable earnings would be of a line from Mudgee to Coonamble. I had an opportunity last night of reading the evidence given in Sydney by the railway officials, as to the probable earnings on the Warren to Coonamble line. They estimated these roughly at £10,000 a year; the length of the line being 63 miles. They were then asked what about the Mudgee-Coonamble line, but they had not considered that at all. One gentleman—Mr. McLachlan, Secretary to the Railway Commissioners—was asked (Question 67):—

Can you say why they have a preference for a line from Warren to Coonamble above any of the other routes proposed? Because, speaking generally, that line would serve the best country, and it would afford the greatest convenience to the public. Another consideration that weighed with them was that it would be by far the least expensive of the three routes

as regards construction. Take, for instance, the line from Mudgee to Coonamble, the one originally suggested and put before Parliament. That line, if constructed, would mean an annual expenditure of £20,000, in the shape of interest and maintenance, beyond the expenditure on the line under consideration. C. D. Meares.
4 April, 1898.

I want to show that that is an incorrect answer. Of course it was roughly given—he had no data—but he made that statement. Now, this is the comparison I make: According to the estimate of the Railway authorities the earnings of the Warren to Coonamble line, 63 miles in length, would be £10,000 a year. The Mudgee to Coonamble line is 147 miles long, which is exactly two and a third times longer than the Warren to Coonamble line. Taking it in the same ratio, if the country through which the Mudgee to Coonamble line passes would produce traffic equal to that on the Warren to Coonamble line, then it should earn two and one-third times as much. That would make its earnings £23,300. Then we will take the expenditure. On the Warren to Coonamble line this is the estimate: Capital expenditure, at $3\frac{1}{4}$ per cent., £4,875; estimated maintenance and other expenses, £4,900. This item of maintenance and other expenses, for 63 miles, would be at the rate of £78 per mile. Assuming that the maintenance and other expenses on the line from Mudgee to Coonamble would be at the same rate, then 147 miles at £78 would be £11,466, and interest at $3\frac{1}{4}$ per cent on the capital expenditure of £180,000, which they say the line will cost, would be £15,600, making the total interest and expenses on the Mudgee line, £27,066; and the earnings, £23,300. Of course, we have no data—the railway people did not make any data for our line—so that I can only make the comparison I have just drawn. If the Mudgee to Coonamble line be two and a third times longer, and if the traffic be equal to that on the Warren to Coonamble line, we should earn two and a third times more, and our expenses being on the same basis, there would be a total loss on the Mudgee line of only £4,000 a year. From Mr. R. E. Jones' report, and from evidence given to-day, the country from Mudgee to Coonamble is just as likely to provide traffic as that from Warren to Coonamble, and by Mudgee is 80 miles shorter. If we could save the Coonamble and Western people 80 miles for all time—that is, one-fifth of the total distance—if we could save them one-fifth in haulage, and one-fifth in the time occupied on the journey, which for the extra 80 miles would mean five or six hours—I say, if by a loss of only about £4,000 a year, we could save all this to the people of the north-west, and, at the same time, open up an enormous area of country which would not be served if the line went from Warren—then the money would be well spent. I contend that the traffic on this line would be greater than that on the Warren to Coonamble line. From what I have seen of this route through Gulgong and out back—I know it as far as Cobborah, at any rate, and I have heard a great deal about the population along the line—it is pretty well populated right through. A good deal of the country from here to Coonamble, I understand, is unoccupied, and there is no doubt that within the last few years it has been very much more closely settled, not only for agriculture, but also for small sheep-farming. There is now a great deal of small sheep-farming going on. The selectors, in the main, are men with, perhaps, 1,000, 2,000, or 3,000 sheep, who require supplies, and also to send their wool to Sydney. In two years, I think, nearly all the leased land about Coonamble, where there is some splendid country, will become available, and will probably be thrown open for selection, and, devoted either to wheat-growing or stock-raising, it will make traffic for the line. This line would open up a tract of country about equi-distant between the western and northern lines.

1980. Having some knowledge of land matters, Mudgee being the land office for the district about Gulgong and Cobborah, do you think that any land made available for settlement would be greedily taken up? Yes.

1981. Over applied for? Yes.

1982. Do you know whether any overtures have been made by people conversant with farming operations with a view to taking up land in this district on the share system? That is being done in this district. Mr. White is doing it.

1983. So that, in all probability, if railway communication were provided further out, land held by private owners would probably be worked on those terms? Yes; I am sure of it. There is a small area on the Talbragar being let, and Mr. Rouse is also willing to devote some of his land to a similar purpose. I could not help being struck with the unfairness of a great deal of the evidence given in Sydney. For instance, Mr. Hickson, Under Secretary for Roads, speaks of the country as being very poor all the way from Mudgee to Cobborah. He also said that the grade on the Mudgee line was 1 in 60. Of course, he found out that that was wrong. He is asked (Question 15):—

Are you prepared to give an expression of opinion in regard to the class of country from Mudgee to Coonamble? No; I know that from Mudgee up past Gulgong, nearly as far as Cobborah, it is poor rough country.

The Railway Commissioners, in view of what they considered the small cost of construction on the Warren to Coonamble line, completely ignored the Mudgee to Coonamble line. They had no figures to submit with regard to the latter, and that is why I have had to make the rough calculations I have done. As to the character of the country, although Mr. Hickson condemned it in terms just quoted, Mr. Deane, the Engineer-in-Chief, gave this evidence (Question 539):—

And the country, I understood you to say, is fairly good? Yes; for the most part it is very good.

He did not even say "fairly good," but went beyond that, no doubt thinking that the word "fairly" did not adequately express the character of the country. He said:—

I examined the line with the view of seeing whether a grade of 1 in 80 could be substituted for 1 in 60.

That bears out the evidence you have had here to-day, and also the statement of Mr. R. E. Jones, who took great trouble over his inquiry and spent considerable time in travelling over the country. I should like to draw attention to this evidence given by Mr. McLachlan (Question 71):—

Then we are to understand that the Railway Commissioners strongly recommend the construction of the proposed railway from Warren to Coonamble, not only on the ground that it will cost much less than either of the other proposed routes, but also because, from the reports made to them of the character of the country, that which would be intersected by the proposed railway is the best? Yes. I may add that the Commissioners themselves have been over the line, and have seen the character of the country.

The Commissioners recommend the Warren to Coonamble line as that which goes through the best country, and in the next sentence they admit that they have not been over the country from Mudgee to Coonamble except as far as Gulgong. One reason given by Mr. McLachlan for preferring the Warren route was because reports made to them of the character of the country showed that that which would be intersected by the proposed railway from Warren was the best. If that is the reason I submit the reason fails, because the evidence shows that the country from Mudgee to Coonamble is equally as good as that from Warren to Coonamble. Another reason given by the Commissioners is that the latter line will cost much less.

C. D. Meares. less. We all admit that; but you have to think of something beyond the mere cost. You have to think what the earnings will be in proportion to the cost; and when there is only a loss of £4,000 a year, the great advantages of bringing the railway direct greatly outweigh that loss, more especially as it would probably soon be made up by the increased traffic that would gravitate to the line. Of course, the Commissioners would like this traffic to go to Warren. They would get 80 miles more railway carriage, and, consequently, a larger amount of freight for all time. It is only natural that they should try to persuade the people of Coonamble to travel the longer route, seeing that they would make one-fifth more revenue out of them than if they came *via* Mudgee. Twenty or thirty years hence, all the country between Mudgee and Coonamble will be thickly settled, and what question will there then be as to which was the better route. If the line from Warren to Coonamble is constructed, people looking at the map twenty or thirty years hence will wonder how such a thing ever came to happen. Mr. Harper, in his evidence (Question 294) is asked:—

Is it your opinion that none of the suggested routes to which your attention has been drawn, with the exception of the one now under consideration, would be profitable for railway construction? I do not think so. I am quite sure, speaking from a cursory knowledge of the traffic which comes from the district between Mudgee and Coonamble, that even if local rates were applied such a line would not pay working expenses.

I submit that it is a grossly exaggerated reply. I do not care how you take the figures the line must pay working expenses. If Mr. Harper knows anything about the matter he must know that a great deal of this traffic now goes to the Western line. He may be calculating upon what comes to Mudgee, but the greater portion of the traffic that would come to the Mudgee line if we had an extension to Coonamble now goes to the Western line.

Eugene Daly, butcher and stock dealer, Mudgee, sworn, and examined:—

- E. Daly. 1984. *Chairman.*] What are you? A resident of the district—a butcher and stock dealer.
 4 April, 1898. 1985. How long have you been here? About forty-three years.
 1986. Will you describe the class of country between Mudgee and Coonamble? From Mudgee to Gulgong the description given by Mr. Cox and Mr. Jones is accurate. The country is all good. Their description of the country to Cobborah is also accurate; but they have rather under-estimated the value of the country from the Talbragar on to Cobborah. From Cobborah to Merrygoen there is very good land, but when you come to Merrygoen you begin to get into country not quite so good. From Merrygoen to Mundooran the country is not so good, being more of a sandy and sour character.
 1987. How far is it from Mundooran to where you get on to the plain country? You get a little plain country on Yarragrin, but not much. Then when you go on to Caigan you get on to plain country. It is all splendid land.
 1988. For the first 20 miles past Mundooran is it suitable for wheat? Yes.
 1989. And when do you get on to the western plain country—40 miles from Coonamble? Yes, this side of Coonamble. That is first-class fattening country.
 1990. Fit for agriculture? It is not so good for agriculture. You get off the red soil there and you get on to the black soil.
 1991. Going from Mundooran to Coonabarabran, what is the country like? You go through Caigan.
 1992. Good country? Yes; a little sandy in some places.
 1993. Is it good country on the whole? Yes, very good country.
 1994. First-class country for the first 30 miles from Mundooran? Yes.
 1995. Does it get a bit inferior as you approach Coonabarabran? Yes; it gets a bit sandy and ridgy.
 1996. But on the whole it is not bad country? It is all good country.
 1997. Do you know the country from Coonamble to Warren? Yes.
 1998. What is your opinion of that? It is all very good country, but for pastoral purposes.
 1999. What about agriculture? I do not think it is good for agriculture.
 2000. Do you know the country about Collie? Yes.
 2001. What do you think with regard to Collie? It is very scrubby at Collie. The land is good about there.
 2002. Would it grow wheat? I should think it would.
 2003. What about Bungey? I was never there.
 2004. And Berida? I do not think that Berrida would grow wheat. It is only patchy. Some of Berida is on the plain, and some is not. That part that is on the plain I am doubtful about.
 2005. What about Kickabil? I have never been there. The country between Warren and Coonamble is very much subject to floods, and I should expect to hear of the line being washed away some day. A line from Mudgee out west would be useful for the transit of stock in dry seasons. It is now almost impossible to get stock from Coonamble in a dry season. I have a return of the number of stock trucked from Mudgee for the year ending 31 March, 1898. It shows these figures:—Horses, 321; cattle, 2,123; calves, 175; sheep, 58,684; pigs, 219; total, 61,522. That only represents the stock trucked at Mudgee, and does not include the stock sent to Rylstone from Cassilis and other places. With reference to the stock coming Mudgee way, now that there is only a travelling stock route from outside, the grass is so poor and bad in time of drought that it is almost impossible to get cattle in; but if the railway went out there, the cattle could come in, and the railway would realise a larger revenue by the traffic.

[One plan.]

1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

PARLIAMENTARY STANDING COMMITTEE ON
PUBLIC WORKS.

REPORT

TOGETHER WITH

MINUTES OF EVIDENCE, APPENDICES, AND PLAN,

RELATING TO THE

PROPOSED RAILWAY

FROM THE TERMINUS OF THE

ROSEHILL RAILWAY TO DURAL.

Presented to Parliament in accordance with the provisions of the Public Works Act,
51 Vic. No. 37.

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

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Rosehill to Dural Railway.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

RAILWAY FROM THE TERMINUS OF THE ROSEHILL RAILWAY TO DURAL.

REPORT.

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS, appointed during the first Session of the present Parliament, under the Public Works Act of 1888, 51 Vic. No. 37, the Public Works Act Amendment Act of 1889, 52 Vic. No. 26, and the Public Works (Committees' Remuneration) Act of 1889, 53 Vic. No. 11, to whom was referred the duty of considering and reporting upon "the expediency of constructing a railway from the terminus of the Rosehill Railway to Dural," have, after due inquiry, resolved that it is not expedient that the proposed railway should be constructed; and, in accordance with the provision of subsection IV, of clause 13, of the Public Works Act, report their resolution to the Legislative Assembly:—

THE ROSEHILL RAILWAY.

1. The Rosehill Railway was constructed under Bennett's Railway Act of 1886 and Simpson's Railway Act of 1893, and consists of 1 mile of double line and 4 miles 48 chains of single line, or 5 miles 48 chains in all.

Under the first-named Act the railway was carried to the Parramatta River, the object of the promoters being, as stated in the Act, to give "better access to the public to the Parramatta River and to the racecourse and recreation-ground near thereto, known as the Rosehill Racecourse and Recreation-ground." Under Simpson's Act power was obtained to extend the railway in three sections to Dural, and the construction of the first section carried the line 3 miles 28 chains further on, to the point north of the Pennant Hills-road where it now terminates. The second section would traverse Dundas and Castle Hill, and extend 5 miles 24 chains from the end of the first section; and the third section would carry the line to a point in the district of Dural 3 miles 41 chains from the termination of the second section. Under this Act, therefore, provision was made for extending the railway 8 miles 65 chains beyond where it at present ends.

Care was taken by Parliament, in each Act, to safeguard the public interest. While authority was given for the construction of the railway, and for the conveyance upon it of passengers and goods, the construction and working of the line were to be in accordance with the methods followed on the Government Railways; and, with regard to carriage rates, while passengers were not to be charged for travelling over the railway more than a certain fixed sum, the charges for goods and merchandise were to be the same per mile as those on the Government Railways, for which purpose the railway was "deemed to be a continuation of the Government Railway between Sydney and Parramatta." This provision, though in Simpson's Act amended so far as to permit of an increase of the rates if the Railway Commissioners should approve, had, it was subsequently found, an important effect upon the prospects of the line, as—the Committee are informed in evidence—it prevented the railway from being profitably worked.

The

The construction of the proposed railway is contingent upon the Government becoming the owners of the Rosehill Railway, and that is offered by the Bank of New Zealand, the present owner of the line, for £25,000. In 1895, £50,000 was asked, but that offer being declined, the price was reduced by one-half. At this sum the purchase was approved by the Cabinet, subject to confirmation by Parliament, and an amount of £25,100 to cover the purchase was placed upon the Loans Estimates for 1896. The item was not, however, passed, and the negotiations between the Bank and the Government were then considered to be at an end.

In connection with this, it may be pointed out that Simpson's Railway Act contains the following provision, under which, apparently, it needs only a proclamation by the Governor, with the advice of the Executive Council, to place the extension authorised by that Act in the possession of the Government without the payment of any purchase money or compensation:—

“If the railway hereby authorised shall cease to be worked as a railway for the conveyance of passengers and goods by the said Benjamin Crispin Simpson, his heirs, executors, administrators, or assigns, for twelve calendar months, the land, site, and permanent way there shall, on proclamation by the Governor, with the advice of the Executive Council, vest in and become the absolute property of the Crown, without making any allowance or compensation, or paying any consideration in respect thereof to the Company, its successors or assigns.”

The extension constructed under Simpson's Act was completed in February, 1896, but has never been worked.

The Rosehill Railway is substantially constructed, and in that respect is approved by both the Engineer-in-Chief for Railway Construction and the Engineer-in-Chief for Existing Lines. Its value, without land, is estimated by the former at £42,000. It is said to have cost £110,000.

THE PROPOSED RAILWAY.

2. The proposed railway commences at the end of the Rosehill Railway, at a point north of the Pennant Hills-road and in the neighbourhood of Carlingford, and proceeds in a northerly direction to Dural. Following the Pennant Hills-road for some distance, the line crosses that road about a mile and a quarter beyond the Pennant Hills Post-office, and then diverging north-easterly to the main Northern Road, it continues in the vicinity of that road—crossing it four times on the way—to its terminal point on the east side of the road at Dural, 9 miles 6 chains from the end of the Rosehill line, and 26 miles 43 chains from Sydney. The ruling grade on the line is 1 in 40. On the existing Rosehill railway, from the Parramatta River to the end of the line at Carlingford, the ruling grade is 1 in 35.

ESTIMATED COST.

3. The Engineer-in-Chief for Railway Construction estimates the cost of constructing the line, exclusive of land and compensation, at £57,100, or £6,292 per mile. Of this amount, £20,581 represents earthworks; £4,397 culverts and box-drains; £4,549 over-bridges; £3,782 level crossings, road-diversions, and fencing; £5,612 permanent-way materials; £160 freight, &c.; £6,468 plate-laying, ballasting, and sleepers; £2,432 station works and buildings; and £2,772 water supply, gradient and mileage posts, telegraph, and miscellaneous. Engineering and contingencies are calculated at $12\frac{1}{2}$ per cent., and are set down at £6,343.

The estimated cost of land resumption in connection with the railway is £9,900, if a width of 2 chains be taken, and between £6,000 and £7,000 if the land resumed be 1 chain wide. The details of this estimate are: Twenty-nine blocks of orchard, containing an area of 69 acres 3 roods 19 perches, thirty-two blocks of cleared land ready for the plough, with an area of 70 acres 3 roods 26 perches, and six blocks of unimproved land, containing an area of 18 acres 29 perches, or in all sixty-seven blocks, with an area of 156 acres 3 roods 34 perches, valued at £7,500; buildings estimated at £750; severance, £3,000; forced sale, £800; cost of transfer and conveyance, £550; or a total of £12,600, from which betterment to the extent of £2,700 may be deducted, and the cost thus reduced to £9,900.

The

The estimated total cost of the proposed railway, with land resumption, would therefore be:—

Cost of construction	...	...	...	...	£57,100
Cost of land resumption	...	...	...	...	9,900
					<hr/>
Total	...	...	...	...	£67,000

RAILWAY COMMISSIONERS' REPORT.

4. Though favourable to the purchase of the Rosehill Railway, the Railway Commissioners do not recommend the construction of the proposed extension. They estimate the annual expense of working the extension at £2,791, which added to £1,710, the interest on the capital expenditure—£57,000 at 3 per cent.—makes the total annual cost £4,501; and the traffic they set down at £1,025. This leaves a debit balance of £3,476, which, if the capital expenditure be taken at £67,000 (the estimated total cost of the line including land resumption), is increased to £3,776.

The purchase of the Rosehill Railway for the sum mentioned, the Commissioners say, is one which could without much risk be completed, but the extension to Dural cannot be viewed with favour at the present time. The traffic, they consider, has been liberally estimated, and as there is no prospect of its increasing in the near future to any extent, they are convinced that the extension would prove unprofitable. They also state that, in their opinion, there is no public necessity for the construction of the line.

EFFORTS TO OBTAIN RAILWAY COMMUNICATION FOR DURAL.

5. The question of railway communication with Dural appears from the evidence to have been first brought forward in 1881, when a deputation urged upon the Minister for Public Works the construction of a light railway to connect Parramatta with Castle Hill, Seven Hills, Dural, Pennant Hills, and Windsor Road. At that point the matter rested until 1884, when a second deputation urged the construction of a light railway to Castle Hill. In 1887 a survey from Parramatta to Dural was made from three points of junction—Westmead, Parramatta, and Rosehill,—and in 1888 an estimate for a line from Westmead (this route presenting advantages over the others) was prepared. Upon this the Railway Commissioners were asked to report on the line, and in March, 1889, they reported that there was "nothing to indicate that the earnings of the proposed line would pay working expenses, and certainly there would be no margin of profit to meet interest on capital."

For these reasons, and particularly because of the close proximity of the proposed railway to existing lines, the railway from Westmead could not be recommended.

In 1890 a survey was made of a line to connect Dural with the Great Northern railway at Pennant Hills, though such a connection did not meet with the approval of the Engineer-in-Chief for Railway Construction; and in 1891, the Minister for Public Works, having directed that a railway to Dural should be submitted with the next railway proposals, the Railway Commissioners again reported on the subject, and saw no reason to modify their previously expressed views with regard to it. A proposal for a tramway from Parramatta to Dural was also regarded with disfavour. Later on the Minister held out no hope of the Government taking up the matter, but promised to support any private Bill introduced with the object of giving Dural railway communication; and in 1893, Simpson's Railway Bill was passed.

THE COMMITTEE'S INQUIRY.

6. In carrying out their inquiry the Committee have afforded to those interested in the proposed line full opportunity to state their views in the matter, and the evidence taken fairly represents each side of the question. In addition to this, witnesses have been examined who are of opinion that, instead of constructing a railway to Dural, communication with that place should be obtained by means of

a tramway from Parramatta. Further, the Committee made two visits of inspection to the district, during which they personally acquainted themselves with its nature and resources, and examined the existing Rosehill Railway and the route of the proposed extension.

EVIDENCE IN SUPPORT OF THE RAILWAY.

7. The evidence in support of the railway relates to the nature and productiveness of the district, and the traffic which would be contributed to the line, and also to the increase in production and population that it is stated would be brought about by the railway communication proposed.

The district is devoted almost wholly to fruit-growing, and in that respect is one of the largest and finest in the Colony. From Parramatta to Glenorie, which may be considered the northern limit from which any traffic would come to the railway, the distance is 15 miles, and the fruit-growing land extends east and west almost from the Great Northern Railway to the Windsor and Richmond line. The orchards are numerous, well kept, and many of them full bearing, and the profitability of the occupation to which the residents have devoted themselves is indicated by substantial and comfortable homesteads.

Several localities are included in the district. North and north-west of Dural are Glenorie, Arcadia, Galston, and Kenthurst; and south and south-west are Glenhaven, Kellyville, Castle Hill, Pennant Hills, Baulkham Hills, and Carlingford. Statistics furnished to the Committee, and sworn to, represent the total population to be 4,424, and give the area of holdings as 44,464 acres, the area under cultivation 7,132 acres, the area of bearing trees 7,438 acres, the area of non-bearing trees 24,382 acres, and the area under other tillage 967 acres. The figures relating to the different localities are shown in the following table:—

Locality.	Population.	Area of holding.	Area under cultivation.	Area of bearing trees.	Area of non-bearing trees.	Area under other tillage.
		acres.	acres.	acres.	acres.	acres.
Glenorie	295	4,842	760	454	22,214	84
Castle Hill	507	4,276	1,200	868	177	154
Glenhaven	79	857	128	73	49	5
Pennant Hills	534	3,261	1,161	855	267	38
Galston	283	2,216	668	482	239	26
Kenthurst	323	7,584	750	427	266	56
Dural	343	5,250	1,018	603	279	136
Carlingford	685	2,070	1,010	925	59	26
Arcadia	187	2,944	437	302	80	54
Kellyville	521	5,784	.....	1,356	225	307
Baulkham Hills ...	667	5,380	.....	1,093	527	81
Total	4,424	44,464	7,132	7,438	24,382	967

It is also pointed out that there is a considerable quantity of Crown land in the district suitable for fruit production which would be taken up if the railway were constructed.

Locally, it is estimated that the carriage of fruit upon the railway would give to the line a traffic amounting to about £3,000 per annum, in addition to which there would be a large return from the carriage of manure for the orchards—the quantity estimated being about 3,000 tons each year—and from passenger traffic. The advantage to fruitgrowers from a railway close at hand, it is urged, would be very great. Under present circumstances so much time is occupied in reaching the railway before the fruit can be despatched to market that both grower and consumer suffer—the former in the lesser return he receives, and the latter by the inferior condition of the fruit he purchases. A portion of the fruit sent to the Sydney market ripens in the case; to allow it to remain on the tree till ripe and then to send it by road and rail to Sydney would be to destroy all chance of selling it profitably. Such communication as the proposed railway would afford would enable the fruitgrower to let his fruit ripen on the tree, and be of other advantage to him, for the despatch to market would be so rapid that ripe fruit would reach the consumer uninjured, and the time now spent in carting the fruit over the roads to the railway line would be devoted to the greater improvement and productiveness of the orchards.

Another

Another source of traffic mentioned by the advocates of the railway is stone from the Pennant Hills quarry, which it is said would be sent over the line in large quantities, and add materially to the traffic earnings.

The railway would also, it is considered, attract a residential population to the district, who would be drawn there by the salubriousness of the climate and the beauty of the scenery.

A few of the landowners in the district are disposed to give the land required for the railway from their holdings free of charge to the Government; but others are so opposed to such a course, that, in the absence of unanimity on the subject, a subscription list, the Committee were informed, had been opened for the purpose of compensating those not disposed to part with their land without payment.

EVIDENCE AGAINST THE RAILWAY.

8. In opposition to the evidence favourable to the construction of the line is much that goes to show that the railway would not be a profitable undertaking. As stated in their report the traffic estimate of the Railway Commissioners is £1,025. This estimate, which was prepared by the Chief Traffic Manager, is made up as follows:—

150,000 cases of fruit at 1d.	...	...	...	£625
2,000 tons special class goods at 1s.	...	...	...	100
Sundries	...	...	...	100
Passengers	...	...	...	200
				200
Total...	...	...	...	£1,025

The total charge for conveying the fruit to Sydney would be 2½d. per case, for, added to the 1d. on the proposed line, would be 1½d., the cost of conveying the fruit over the Rosehill line and the Government Railway from Clyde to Sydney.

Compared with this the freight per case to Sydney from any station on the Great Northern line, as far north as Thornleigh, is 1d., and from Hornsby 1¼d.

Witnesses expressed to the Committee their willingness to pay 3d. per case, which they said would compare favourably with the cost and inconvenience now incurred by them in having to cart their fruit to the Northern Railway; but the railway authorities doubt the statement. The more distantly situated of the fruit-growers, they admit, may be prepared to pay a higher rate than at present, but they are confident that the majority would send their fruit to market as cheaply as they could possibly do it. With a lower rate and a better service on the main line, the preference, they are convinced, would be given to that line. Experience has taught that those interested in the construction of a new line of railway are quick enough to assert their readiness to pay special rates as an inducement for the line to be constructed, but once the railway has been opened an agitation is begun to have the rates reduced. In the present case it would not be difficult, after the construction of the proposed railway, for the fruit-growers to press for a reduction of rates by resuming their present method of carting their fruit to stations on the Northern line.

Notwithstanding the very considerable difference between the traffic estimate of the Commissioners and that of the local residents, the Chief Traffic Manager maintains that his estimate is by far the more reliable. The carriage of fruit returns so little to the Railway Department that a fruit-growing district does not afford a commercial basis for a railway; but, in this case, allowance has been made for all the traffic that appears possible. The Chief Traffic Manager has taken into account every case of fruit going at present by railway, steamer, and road, and so liberal has he been in calculating the traffic possibilities of the extension that the 150,000 cases given as the quantity likely to be carried are really the figures representing the full extent of the fruit traffic which now comes to the railway at one or other of the stations on the Great Northern line, or at Parramatta. In all probability, therefore, the quantity of fruit sent over the proposed railway would be less than 150,000 cases. From much of the district the distance to Sydney would be shorter by way of Pennant Hills than by the proposed railway, a circumstance certain to attract traffic to the

Pennant

Pennant Hills station. The Mayor of Ermington and Rydalmere informed the Committee that two-thirds of the fruit from those places is carted to Sydney, and this practice will probably continue. To the Committee it appears doubtful whether any traffic from Arcadia or Galston would go to the proposed line, or that the line would be of any service to Baulkham Hills or west of Castle Hill; and if that should be so, the local estimate would, by these circumstances, be reduced fully one-third. The road from Galston to Dural is described as bad in wet weather, whereas that from Galston to Hornsby is through hard country, and has been thoroughly well drained and metalled. To make a good metal road from Galston to Dural would require an expenditure of £3,800.

But whether all, or only a portion, of the total quantity of fruit now conveyed over the Government railways to Sydney, were sent by the proposed railway, whatever the number of cases might be, to that extent would the Great Northern line and the railway from Parramatta to Sydney be deprived of traffic.

This fact brings into view another objection to the proposed extension. For a considerable portion of its length the line would run parallel with the Great Northern Railway, and adjacent to it. It is evident, therefore, that if constructed it must be in the position of a competitor against the main line, and to the extent to which it attracts traffic will reduce the earnings of the other line, the two lines being in operation to do the work which the one now in existence does very well alone. This effect upon the traffic earnings of the main line would be met in some degree by the special rate charged upon the extension.

From the carriage of manure the railway officials anticipate very little return; and passenger traffic, they are of opinion, is certain to be small.

As for traffic from the Pennant Hills quarry, they regard it as more than doubtful, from the fact that nearly all the road metal used in and around Sydney is brought by sea from Kiama, where it is obtained much more cheaply than it can be got at Pennant Hills. But, even if stone from the quarry were a possible source of traffic earnings, the situation of the quarry is such that, to bring the stone to the line, it would be necessary to construct a branch railway or a good metalled road.

ROADS IN THE DISTRICT.

9. The district which would be traversed by the proposed railway is well provided with roads, upon which, according to a return published with the evidence, £16,114 has been spent since 1892. The metalling has not been completed, and some of the roads, it is said, are difficult in wet weather; but, on the whole, they are, undoubtedly, good, and meet very well the requirements of the traffic. Compared with roads in most other districts of the Colony they are superior.

SUGGESTED TRAMWAY FROM PARRAMATTA.

10. In opposition to the proposed railway to Dural the residents of Parramatta advocate the construction of a tramway from Parramatta to Dural, by way of Castle Hill, Baulkham Hills, and Kellyville, and, if such a tramway cannot be obtained, that matters shall remain as they are. The object in this is to, as far as possible, draw additional trade to Parramatta, which is regarded as the district's commercial centre, or, if no more than the present amount of trade can be attracted thither, to prevent the existing trade from going elsewhere.

At the present time most of the fruit traffic from Castle Hill, Baulkham Hills, and Kellyville comes into Parramatta, but the business and other relations between the fruit-growing centres generally and Parramatta justify, it is contended, the claim to the whole of the trade of the district.

A tramway from Parramatta to Dural is practicable, and would be within touch of a large portion of the fruit trade, but while that is the case it would probably attract to itself only little traffic, and, as a profitable concern to the railway authorities, it would be in the same position as the proposed railway.

Several

Several routes for the tramway have been suggested. The best, in the opinion of the Engineer-in-Chief for Railway Construction, is one from the Parramatta Railway Station down Taylor-street to Macquarie-street, and along that street to Marsden-street, where it would turn off to the river, which would be crossed by a separate bridge below the dam. Thence, after reaching Villiers-street, it would turn off at the back of the King's School into O'Connell-street, and follow the road until nearly out of Parramatta, where it would take a bend on to the main Dural Road, and keep that road almost entirely to the tramway's terminal point. The line would be a tramway pure and simple, with two or three chain curves, and grades of 1 in 30 or 1 in 50 against, and 1 in 20 with, the load. The estimated cost is about £28,000.

Such a line would be suitable for the carriage of fruit from Dural to Parramatta; but to get the fruit to Sydney transshipment would be necessary from the tramway rolling stock to the rolling stock on the railway, and this transshipment would add to the working expenses of the tramway, and therefore to the freight charged to the fruit-growers.

In the consideration of any proposal for a tramway to carry, in conjunction with the railways, goods as well as passengers, the Campbelltown-Camden tramway naturally comes into view, and in the present inquiry the question arose, why, if the goods traffic on the Camden tramway can be worked with the railway, without transshipment, a similar thing cannot be done with a tramway from Parramatta to Dural. The reason for the difference is to be found in the fact that the Camden tramway has, to the required extent, been reconstructed as a railway, and is worked as one of the railway lines of the southern system. Both the rails and the curves are suitable for the rolling stock used on country railways, and there is no necessity for the transshipment of goods sent from the district to Sydney. A tramway is practically a separate service, for the usual tramway rails and sharp curves make it difficult to use thereon the rolling stock of a railway.

The construction of a line from Parramatta to Dural, suitable for ordinary railway rolling stock, would necessitate the adoption of a route outside the town of Parramatta, for it would be undesirable to run trains through the streets, or to resume the private property necessary for the requisite curves; and, as far as the evidence before the Committee indicates, the best route for such a line would be the surveyed railway route from Westmead to Dural, the estimate of cost in connection with which, with 10-chain curves, is £57,000, and with sharper curves somewhat less. Such a line from Parramatta to Dural would be much more costly, because of extensive resumptions necessary to reduce the grades, and of a difficulty in junctioning at Parramatta with the main railway.

The railway authorities do not, however, approve of either a tramway or a railway from Westmead or Parramatta to Dural, as, in their opinion, neither would pay. The Camden tramway, though worked as economically as possible, shows a considerable annual loss.

OTHER ROUTES TO DURAL.

11. It is possible to construct a railway to Dural by two other routes than those mentioned, but the cost would be so considerable, and the traffic returns so small, that neither of them could be recommended. A branch railway could be made from Pennant Hills to Dural, rather more than 8 miles in length, with a 1 in 40 grade and 10-chain curves, for £53,800; or from Carlingford to Dural, 10 miles long, with the same grade and curves, for £63,000; but neither would be an undertaking profitable to the railway system of the Colony. No railway connection with Dural can, at present, be made, it appears, with any prospect of the line paying expenses.

RESOLUTION PASSED.

12. After a careful consideration of the evidence, and looking at the question before them from all points of view, the Committee are of opinion:—

- (1.) That the traffic upon the proposed railway extension would not be sufficient to make the line profitable;

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(2.)

- (2.) That whatever the traffic might be, a large proportion of it would be traffic withdrawn from the Great Northern Railway ;
- (3.) That the district is so situated in regard to road communication with, and distance from, the existing railways, that fruit-growers can, without further railway expenditure, find reasonable transit for their fruit to market.

The resolution passed by the Committee is shown in the following extract from the Minutes of Proceedings, of Tuesday, 15th February, 1898 :—

“ Mr. Farnell moved,—‘ That, in the opinion of the Committee, it is expedient that the proposed Railway from the Terminus of the Rosehill Railway to Dural, as referred to the Committee by the Legislative Assembly, be carried out.’

“ The motion was seconded by Mr. Clarke, and negatived on the following division :—

Ayes, 5.	Noes, 8.
Mr. O'Connor,	Mr. Ewing,
Mr. Clarke,	Mr. Humphery,
Mr. Lee,	Mr. Hoskins,
Mr. Fegan,	Mr. Roberts,
Mr. Farnell.	Mr. Trickett,
	Mr. Hassall,
	Mr. Black,
	Mr. Wright.”

PROPOSED PURCHASE OF THE ROSEHILL RAILWAY.

13. The question of the purchase of the Rosehill Railway by the Government has been prominently before the Committee during their inquiry, as it was in the expectation that this line would become the property of the State, and be controlled by the Railway Commissioners, that the proposal to extend it to Dural was made.

The Committee find that, up to the present, the traffic upon the railway has been chiefly passenger traffic obtained in connection with the Rosehill Racecourse, and that the section of the line beyond the river, or what is known as Simpson's line, has never been worked. This latter circumstance is due, it is explained, to restrictions in Simpson's Railway Act which prevent the owners from charging rates for carriage which would be profitable. The Rosehill portion of the railway has returned, on an average, £543 per annum to the owners of the line, and, to the Railway Commissioners, for that part of the journey to Rosehill which takes place over the Government Railways, an average of about £2,000 per annum. A certain fare is charged for the journey from Sydney to Rosehill, and out of that, the owners of the Rosehill Railway are paid 4½d. per head. In addition to the passenger traffic in connection with the racecourse, there is a goods traffic amounting to about £120 per annum.

It will, therefore, be seen, that as an inducement to the purchase of the Rosehill Railway, there is offered to the Government a continuation of a traffic which brings in locally £663 per annum, and assists the main line from Sydney to the extent of £2,000 per annum.

This return from the line would probably be increased, the Chief Railway Traffic Manager reports, by the carriage of live stock, mutton, sheep skins, and coal in connection with the works erected near Rosehill by the Stockowners' Meat Company of New South Wales, and by the carriage of fruit and the conveyance of a few passengers. The Chief Traffic Manager's estimate, which he describes as very full and probably beyond what would be realised, is as follows :—

	£	s.	d.
Rosehill Racecourse	543	0	0
A. K. and O. Company	120	0	0
Stockowners' Company	146	0	0
Fruit, 30,000 cases at ½d. each	62	10	0
Manures and other low-class traffic, 1,000 tons at 6d....	25	0	0
Passengers	150	0	0
Sundries	100	0	0
	£1,146	10	0

The interest at 3 per cent. on £25,000, the sum asked for the railway, amounts to £750, and, in addition to this, there would be the expenses of working and maintaining the line. What the working and maintenance expenses would amount

to

to is not definitely stated, but they are mentioned as about £500. This shows a slight balance on the losing side, and the traffic estimate, as has been stated, is an extreme one. It might, however, be judicious on the part of the Railway Commissioners to keep the Rosehill Railway and its traffic in existence, as the main line to Parramatta is so largely interested in it. Though it is probable that the Rosehill Railway will continue to exist if the Government should not purchase it, in that case it may be in the hands of some other purchaser, and a railway so close to Sydney and joining the Government system cannot be so satisfactory to the Railway Commissioners while it is in the hands of private individuals, as it would be if it were entirely under their own management.

The end of a tidal estuary, such as the head of the Parramatta River, in connection with which there are opportunities of development, should, if possible, be in the hands of the State. At the point where the Rosehill Railway crosses the stream towards Carlingford, the river is virtually the terminal point of the navigation of Port Jackson. At present the depth of water there is not considerable, but that is capable of improvement.

Evidence given before the Committee goes to show that there is every probability of the Rosehill Racecourse being a permanent place of resort, and that the factories erected near the Parramatta River will contribute to the returns from working the line. Consequently, there would be in connection with the railway an assured traffic, and, in addition, as much more as the Commissioners, in their enterprise, may be able to secure.

The value of the line to the Government lies in the retention of the Rosehill Racecourse traffic, and the goods traffic in connection with the Australian Kerosene and Oil Company's Works and the works of the Stockowners' Meat Company of New South Wales; in what can be done to increase the earnings of the railway; and in preventing private individuals from becoming possessed of advantages which, in the public interest, should be wholly under State control.

On these grounds the Committee are of opinion that it is advisable for the Government to acquire possession of the railway, provided the line, and everything connected with it, as indicated in the subjoined resolution, together with all rights under Bennett's Railway Act of 1886 and Simpson's Railway Act of 1893, can be purchased from the present proprietors at a price not exceeding £20,000. That sum would represent to the present owners of the railway the full value to them of the earnings upon the line capitalised; and, having regard to the views expressed in evidence on behalf of the Railway Commissioners, the purchase at this price should be advantageous to the country.

The opinion of the Committee on this matter is expressed in the following resolution taken from the Committee's Minutes of Proceedings, of Tuesday, 12 April:—

“Mr. Farnell moved,—‘That, if the Rosehill Railway from Clyde to Carlingford, including the branch line to the Parramatta River, the timber wharf at the terminating point of the branch line, with the loading appliances upon it, the turntable, all land, and station, platform, and siding accommodation, and everything else provided or carried out in connection with the railway under Bennett's and Simpson's Railway Acts, can be purchased by the Government for a sum not exceeding £20,000, the Committee recommend that the purchase be made.’

“The motion was seconded by Mr. Hoskins, and passed on the following division:—

Ayes, 9.

Mr. Ewing,
Mr. Humphery,
Mr. Hoskins,
Mr. Roberts,
Mr. Trickett,
Mr. Clarke,
Mr. Lee,
Mr. Fegan,
Mr. Farnell.

Noes, 2.

Mr. Black,
Mr. Wright.”

THOS. EWING,
Chairman.

Office of the Parliamentary Standing Committee on Public Works,
Sydney, 13 April, 1898.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

MINUTES OF EVIDENCE.

RAILWAY FROM THE TERMINUS OF THE ROSEHILL RAILWAY TO DURAL.

WEDNESDAY, 5 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq., (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee proceeded to consider the expediency of constructing a Railway from the Terminus of the Rosehill Railway to Dural.

Robert R. P. Hickson, M. Inst. C.E., Under Secretary and Commissioner for Roads, Department of Public Works, sworn, and examined:—

1. *Chairman.*] You have a statement to submit with regard to the proposal before the Committee? Yes; it is as follows:—

Department of Public Works, Sydney, 16 December, 1897.

RAILWAY FROM ROSEHILL TO DURAL.

THE line now under consideration is an extension of the Rosehill Railway, commonly known as Simpson's Railway. It begins at the end of Simpson's Railway about 17 miles 37 chains from Sydney. It at first follows the Pennant Hills Road, which it crosses about a mile and a quarter beyond the Pennant Hills Post-office. It then converges to the main road from Parramatta to Dural, which it crosses four times, and terminates at Dural on the east side of the Parramatta to Dural Road, about 26 miles 43 chains from Sydney. The undulating nature of the country will make the works rather heavy. The total length of the line proposed to be constructed is 9 miles 6 chains, and its estimated cost £57,100, or about £6,292 per mile, exclusive of compensation.

The railway, of which this is an extension, consists of two portions.

The first portion was constructed partly under Bennett's Railway Act of 1886, and partly under Simpson's Railway Act of 1893, and consists of—

Double line	1 mile.
Single line	4 miles 48 chains.
Total.....	5 miles 48 chains.

This part of the line, which it is said cost £110,000 to construct, is under offer to the Government by the Bank of New Zealand for the sum of £25,000.

The portion constructed under Bennett's Act starts as a double line, leaving the main suburban line near the western end of Clyde platform, and crosses Duck and A'Beckett's Creeks to a platform at the western side of Rosehill Race-course, one mile from the point of commencement. Thence it curves eastwards as a single line, crosses the Parramatta tramway, and ends at the river wharf near the Graziers' Meat Export Company's premises, about 2 miles 20 chains from Clyde.

The portion of the line constructed under Simpson's Act begins by a junction with Bennett's line at about 10 chains from the Rosehill platform. It then crosses the Parramatta River by a steel bridge, crosses Victoria, Kissing Point, and Ermington Roads, and passes under Pennant Hills Road, ending about 30 chains further on, or about 3 miles 25 chains from the point of junction with Bennett's Railway.

The question of railway communication with Dural was first brought forward in 1881. A deputation waited on the Minister for Public Works, the Hon. John Lackey, to urge the construction of a light railway to connect Parramatta with Castle Hill, Seven Hills, Dural, Pennant Hills, and Windsor Road. The Minister promised to have an examination of the country made as soon as a surveyor could be spared.

Nothing was done, however, until May, 1884, when the residents of Castle Hill, Baulkham Hills, Dural, and Pennant Hills held a meeting to arrange for a petition to be presented to the Minister for Public Works asking for a survey to be made to ascertain the best route for a light railway from Parramatta to these districts. As an outcome of this a deputation waited on the Minister for Public Works, the Hon. F. A. Wright, presented a petition, and urged the construction of a light railway to Castle Hill. Mr. Wright referred the matter to the Railway Commissioner, Mr. Goodchap, who pointed out that the Traffic Manager estimated the freight at 3,000 tons instead of the 10,000 mentioned in the petition, but thought that, even at the higher figure, the line would have no chance of paying. In June, 1884, the Premier, the Hon. G. R. Dibbs, decided to consider this line with the railway policy, but no steps were taken to bring the matter before Parliament.

In September, 1887, the Hon. John Sutherland ordered a survey from Parramatta to Dural to be made, which was accordingly carried out, three points of junction, Westmead, Parramatta, and Rosehill being investigated. An estimate of the Westmead-Dural line, which presented advantages over the others, was furnished in December, 1888; grades, 1 in 40; length, 11 miles 7 chains; cost, £50,000, equal to £4,522 per mile. This estimate appears to have been too low.

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R. R. P.
Hickson,
M. Inst. C.E.
5 Jan., 1898.

R. R. P.
Hickson,
M. Inst. C.E.

The Railway Commissioners were asked to report, and the following is a copy of their report :—

19 March, 1889.

Proposed line of Railway from Westmead to Dural, 11 miles 7 chains.

5 Jan., 1898. IN accordance with the provisions of the "Public Works Act of 1888," section 13, we beg to report as under :—

Cost of Construction—

The Engineer-in-Chief estimates the cost of construction of the line (exclusive of land and compensation) at £50,400

Annual Cost—

Capital expenditure at 3½ per cent. 1,764
Expense of working the line, permanent way, and traffic departments 3,400

Total annual cost £5,164

Traffic Estimate—

Coaching and mails £1,300
Goods traffic 1,200

£2,500

The country through which the proposed line passes is fertile and is extensively devoted to fruit-growing. The population, however, is limited.

The goods traffic would be almost wholly confined to fruit which, owing to the low rate of carriage, produces but a small return when considered in connection with the expenses of a railway.

The population is unlikely to be increased to any material extent by the construction of the line, and even if a considerable increase follows, the revenue derivable from this source would be limited. Further, the line does not go in the direction of any large centre of population. At present the country upon each side of and surrounding the line is well served by the Western line and Northern line. On the former is Parramatta, distant about 11 miles from Dural, and between these places there is an excellent coach service three times per day. Seven Hills on the same line is about 8 miles from Dural. On the Northern line there are Hornsby and Pennant Hills districts, distant respectively from Dural 4 and 4½ miles.

There is nothing to indicate that the earnings of the proposed line would pay working expenses and certainly there would be no margin of profit to meet interest on capital. Generally for these reasons and particularly upon the ground of the close proximity to existing lines the construction of the proposed line cannot be recommended.

The Seal of the Railway Commissioners of New South Wales was hereto affixed, this nineteenth day of March, One thousand eight hundred and eighty-nine, in the presence of—

E. M. G. EDDY,	(L.S.)
Chief Commissioner.	
W. M. FEHON	(L.S.)
Commissioner.	
CHARLES OLIVER,	(L.S.)
Commissioner.	

HUGH McLACHLAN.

In August, 1889, referring to the application from Mr. Nobbs, M.P., for the survey of a line from Rose Hill to Dural, the Acting Engineer-in-Chief for Railways, Mr. Deane, pointed out that this would be 2 miles longer than a line from Westmead, and would necessitate a bridge over the Parramatta River; he recommended instead the survey of a line to Dural, suggested by Mr. F. Farnell, M.P., to start from the Great Northern line about 16 miles from Sydney, and join the proposed Westmead to Dural line about 22½ miles from Sydney.

It having been suggested that a junction should be effected with the Northern line, an examination of the country was made by one of the surveyors with that view, the result of which seemed to show that it was impossible to lay out a line from Dural to junction with the Great Northern line at any point nearer than Pennant Hills Station (17½ miles), that there would be no shortening of the distance by this route, and that Castle Hill would be left out altogether. In March, 1890, Mr. Deane minuted that in his opinion this would be a great mistake. A survey was, however, made connecting with Pennant Hills Station.

In April, 1890, Mr. Deane having, under instructions from the Minister, met the late Mr. Hugh Taylor and some other gentlemen and examined the district in their company, furnished a report in which he stated that he considered that if any improved means of communication were provided it should be a railway and not a tramway. He thought, however, that if the road were placed in proper order the necessity for either would disappear.

A further suggestion having been made in May, 1890, to connect with Hornsby, the impracticability of this scheme was pointed out.

In reply to a deputation which Messrs. Nobbs, Ritchie, Farnell and Stevenson, Ms.P., introduced on the 29th August, 1890, the Minister for Public Works pointed out that the line they proposed from Rose Hill to Dural involved 2 miles more construction than that from Westmead, which the Railway Commissioners thought it would be premature to construct, but promised to have the merits of the proposal considered. The matter had also in July, 1890, been referred to the Examiners for Public Works, Messrs. Gilliat and Alexander.

In August, 1890, the Examiners submitted a report, which cannot now be found, stating that a line to Dural would not be self-supporting, and that one starting from the Rose Hill line should not be entertained. They could not recommend a line from Pennant Hills Station, and did not see any advantage in starting at Parramatta instead of Westmead. A railway, however, would undoubtedly foster the fruit industry and encourage settlement.

In November, 1890, Mr. E. B. Price, Assistant Engineer, Public Works Department, who had been asked to make further investigations, pointed out that a railway would not pay for many years, and that he considered the district would be best served by a system of tramways, say from Parramatta to Castle Hill, from Pennant Hills to Dural, and from some point near Ryde to develop the parts of the district not served by these; but he could see no immediate necessity for any accommodation of the kind. The Acting Engineer-in-Chief for Railways could not recommend Mr. Price's proposal, as the lines suggested would be 15½ miles long, and would cost £46,500. He suggested a through tramway to Dural, which would not require fencing; but he thought that the owners should give the land through which the line passed. Mr. Bruce Smith then directed that a "cursory and inexpensive survey" of this be made, sufficient to enable a rough estimate to be prepared.

This matter was reported upon by Mr. Deane on 2nd April, 1891, and two estimates submitted, as follows :—

- (1) For £61,000, which would make a good suburban line.
- (2) For £59,500, which had the advantage of not interfering with the Park.

Mr. Bruce Smith then inquired as to the state of the road to Dural, and the cost of putting both it and the road to Hornsby in good condition.

The first road was reported as being of clay, good in dry weather, but impassable in wet—to metal it would cost £11,260, and to do the same to the Hornsby road about £7,600.

Mr. Bruce Smith directed the line to Dural to be submitted with the next railway proposals.

The Railway Commissioners reported at this time—13th August, 1891—that they saw no reason to modify their previously expressed views with regard to the line.

In January, 1892, the late Mr. Hugh Taylor, M.P., proposed that a tram line be constructed from Parramatta at a cost of £19,284. The Engineer-in-Chief for Railways pointed out that the proposed line could not be used for goods, as the railway trucks could not be run over it; the bridge then being constructed at Parramatta was not strong enough to carry a tram-line; and the cost was much under-estimated, as drainage, buildings, bridges, compensation, and land resumptions were not provided for.

On 18th August, 1892, Messrs. J. Garrard, Dale, and Farnell, Ms.P., introduced a deputation to the Minister on the subject.

Mr. Bruce Smith held out no hope of the Government taking the matter up, but promised to support any private Bill which might be introduced during the session.

A private Bill introduced (Simpson's) was assented to in June, 1893, and the first part of the railway constructed to near the junction of the Pennant Hills road and the Pennant Hills wharf road. On

On the 14th June, 1895, Mr. Wilson, Manager of the Bank of New Zealand, approached the Premier, the Hon. G. H. Reid, with regard to the purchase of the constructed lines by the Government, and on the 23rd August, 1895, the assistant manager of the Bank of New Zealand wrote, asking for an interview.

The manager, Mr. Wilson, saw Mr. Reid on the 29th August, and on the 4th September wrote, stating that he was authorised, on behalf of the bank, to negotiate for the sale of the property, and offered to accept payment in funded stock or bonds at a price to be agreed on. On this letter the Railway Commissioners reported as follows:—

R. R. P.
Hickson,
M. Inst, C.E.
5 Jan., 1898.

Office of the Railway Commissioners of New South Wales, Sydney, 10th October, 1895.
The Hon. G. H. Reid, M.P., Minister for Railways.

Rosehill Railway.

We beg to report for the information of the Hon. the Premier and Minister for Railways, in response to his minute of the 4th instant, upon the letter of the Manager of the Bank of New Zealand, requesting that the Government of this Colony should purchase the Rosehill railway and the extension thereof now being constructed, that the purchase cannot be recommended. The line is not one which the Railway Commissioners could have reported favourably upon if its construction had been contemplated by the Government.

As regards the remarks of the manager on the subject of the extension of the line into the Dural district, we beg to point out that under date the 19th March, 1889, the Railway Commissioners reported adversely on a proposal to construct a line from Westmead to the Dural district, and nothing has since transpired to change the opinion then expressed.

With reference to the observations as to the diversion of traffic to the Parramatta River, it may be that this will occur, though it is doubtful; but if it does the prospect of a remunerative traffic is so limited that it needs no consideration as bearing upon a large expenditure such as would be involved in the purchase of the railway line.

E. M. G. EDDY,
Chief Commissioner.
CHARLES OLIVER,
Commissioner.
W. M. FEHON,
Commissioner.

On the 22nd November Mr. Wilson wrote offering to accept £50,000 on behalf of the bank.

The bank then appointed Mr. R. Amos as their agent, and the Colonial Treasurer asked the Railway Commissioners to treat with him, and after many interviews it was agreed that the whole line should be placed under offer to the Government for £25,000, the property to be handed over free of all claims of every kind. The purchase was approved by the Cabinet subject to the confirmation of Parliament. The Crown Solicitor was asked to investigate the vendors' title. A sum of £25,100 was placed on the Loan Estimates for 1896, but not passed by Parliament, and in November, 1896, in reply to a question by the Under Secretary for Finance and Trade, the Colonial Treasurer said the negotiations were now at an end.

On 24th June, 1897, the Minister for Public Works directed that the Railway Commissioners be asked for their report in terms of the Public Works Act; this was supplied, and is as follows:—

Office of the Railway Commissioners of New South Wales, Sydney, 4 November, 1897.

Proposed Extension of Railway, Carlingford to Dural (9 miles 6 chains).

In accordance with the provisions of the "Public Works Act of 1888," section 13, we beg to report as under:—

Cost of Construction—

The Engineer-in-Chief for Construction estimates the cost of construction of the line (exclusive of land and compensation) at £57,000

Annual Cost—

Capital expenditure at 3 per cent. £1,710
Cost of maintaining permanent-way, and for traffic and locomotive expenses 2,791

Total annual cost..... £4,501

Traffic Estimate—

Goods and coaching—Total estimated traffic £1,025

The proposed line in reference to which our report has been requested is an extension of the present Rosehill and Carlingford line, which is the property of the Bank of New Zealand, and at present under offer to the Government for the sum of £25,000.

The purchase of this line at the figure mentioned has already been recommended by the Railway Commissioners, and we are still of opinion that it is one which could without much risk be completed.

The extension from Carlingford to Dural is, however, a proposal which cannot be viewed with favour at the present time. As already stated, the estimated traffic is £1,025 per annum, which falls short by £3,476 of the estimated charge for interest and working expenses, and the former charge is exclusive of interest on the cost of land which it will be necessary to resume for the railway. In this connection, too, it requires to be specially mentioned that the resumption will be costly, as severance will be created along about 8 miles of main road frontage without it being possible to provide any corresponding advantage.

As regards the traffic, we are of opinion that it has been liberally estimated, and that there is no prospect of its increasing in the near future to any extent.

We are of opinion that the extension would prove unprofitable, and that there is no public necessity for its construction, and therefore do not recommend it.

The Common Seal of the Railway Commissioners of New South Wales was hereunto affixed this fourth day of November, One thousand eight hundred and ninety-seven, in the presence of—

CHARLES OLIVER, (L.S.)
Chief Commissioner.
W. M. FEHON, (L.S.)
Commissioner.
DAVID KIRKCALDIE, (L.S.)
Commissioner.

H. McLACHLAN.

On the 9th December, 1897, the Minister submitted to Parliament a motion for the reference of this line to the Public Works Committee, and this was passed.

The various methods of improving the communication with Dural have lately been investigated by the Engineer-in-Chief, Mr. Deane, and details will be furnished to the Committee for their information.

2. *Mr. Humphery.*] Have you any information with regard to Simpson's railway? I know that it has been offered to the Government for £25,000. You will find the powers of the proprietors specified in the Act.

3. *Mr. Black.*] Is the sum of £25,000 you have mentioned the purchase money for the whole of the constructed line amounting to 5 miles 48 chains? Yes, the whole of Simpson's and Bennett's line.

4. Including the deviation to Rosehill? Yes.

5. I presume it would include the right of construction elsewhere? Yes.

6. According to the statement of the parties interested the line which they propose to sell to the Government cost them about £20,000 a mile? £110,000 for the full length. That is their estimate of the cost. Of course, I cannot vouch for it.

7. The proposal is now made to sell to the Government for £25,000 which would be approximately £2,804 per mile? Yes.

8. What would be the cost per mile of the proposed extension from Carlingford to Dural? £6,292, exclusive of compensation.

Henry

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and examined:—

H. Deane.
5 Jan., 1898.

9. *Mr. Humphery.*] Have you a report with regard to the proposal under the consideration of the Committee? I believe Mr. Hickson's statement contains all that I need say in the matter.
10. Have you seen Mr. Hickson's statement? I prepared the material for it myself, so that I am aware of what he has said.
11. Have you any information as to the constructed portion of the line between Clyde and Carlingford? No further information than is contained in the report which Mr. Hickson read.
12. Do you know the cost to the owners of that portion? £110,000 is said to have been the cost of the whole of it.
13. Do you know how that amount is made up? I have no idea. I have received no particulars whatever.
14. Can you give the Committee an opinion as to the present value of the line between Clyde and Carlingford? I think it would be very cheap at £25,000.
15. What is the steepest grade? One in 35. With regard to construction there is only one point which I may perhaps mention about the extension from Rosehill to Carlingford. The line was constructed under Simpson's Railway Act, and before it was completed Mr. Simpson asked me to look at the bridge over the Parramatta River. I looked at it and I examined the drawings. I had some calculations made, which I partially checked myself. I found that the bridge was not quite stiff enough. Mr. Simpson undertook to put the matter right, and I believe that some material was ordered for the purpose. I think it is right to mention that to the Committee. In regard to the expense of the alteration, that would be a comparatively trifling matter.
16. The line between Clyde and Carlingford has been constructed under two Acts of Parliament, one being known as Bennett's Rosehill Railway Act and the other as Simpson's Railway Act? Yes.
17. The proposal of the Government is to purchase the whole length to Carlingford for £25,000—to include all rights under the existing Act,—that is what you understand? That is what I understand.
18. *Mr. Black.*] Including the deviation to Rosehill? Yes.
19. *Mr. Humphery.*] As there appears to be some doubt in the minds of the Committee as to what is intended by this proposal, I might ask you whether you distinctly understand that the proposed purchase for £25,000 will include the whole of the line as shown in black on the map before the Committee as far as Carlingford? Yes.
20. *Mr. Black.*] Will it also include the purchase from the Bank of New Zealand of the rights of construction to Dural given under one of the two Acts mentioned? I presume it would, but that is not actually stated.
21. *Mr. Humphery.*] Is the line between Clyde and Carlingford in every respect of the character that you would pass as constructing engineer? Yes, with the exception of a deficiency in the bridge.
22. Which you say can be remedied for a small sum of money? Yes. It is very likely that since I saw the line it may have gone a little out of repair; there may be a little subsidence here and there, but there is nothing in that.
23. When did you last inspect the line? It is some time ago since I was over it. I should like to state that when these negotiations were pending I was not consulted at all in the matter. I was not called upon to report, and I made no report at the time. I was upon the line previous to the completion of the bridge.
24. That would be how long ago? It must have been some time towards the close of 1895, over two years ago.
25. And you have not since inspected the line? No.
26. Where is the grade of 1 in 35 of which you speak? Rising from the Parramatta River to the end of the line the ruling grade is 1 in 35.
27. Do you regard that as a satisfactory grade for a line of this description? It is certainly workable; I would prefer a better grade. The main Northern line has grades of 1 in 40, as you are aware.
28. Will you mention the grades between Carlingford and Dural on the proposed extension? The ruling grade is 1 in 40 on that section.
29. What would be the worst parts of that line? Soon after leaving the end of Simpson's Railway, the line would rise with a grade of 1 in 46. That would be for 28 chains. The next steep grade commences at 19 miles 23 chains and is 1 in 40. That continues up to 20 miles 24 chains, nearly three-quarters of a mile. There is a grade of 1 in 50 for about 20 chains, including the 21 miles. There is a grade of 1 in 55 down from 21 miles 20 chains to about 21 miles 60 chains. There is also a little piece of 1 in 40 at about 24½ miles, but it is only 8 chains in length. Those are the worst grades on the line.
30. The highest grade is 1 in 60 is it not? I have not given you the flatter grades. There are also some level portions.
31. About what length of the line approximately would you regard as being of a severe grade? The worst part of the line as regards traffic is that which I have mentioned as a down grade of 1 in 55, because that would be against the heavier traffic from Dural to Sydney. It is nearly half a mile in length.
32. If you were placing before the Committee an estimate of the cost of a line between Clyde and Carlingford, how much per mile would you regard as fair provision to make for its construction? I do not think it could be constructed for less than the average per mile for the new portion, namely £6,292. You might put down the total cost at £30,000. This is of course a very rough estimate.
33. That is exclusive of compensation to land owners? Yes.
34. Would that include the construction of the bridge? Yes.
35. You say that the bridge can be rendered absolutely safe for a very small outlay? Yes.
36. If it has not been already incurred? I do not think it has been incurred.
37. What would be the approximate cost? It depends upon what class of traffic you want to carry over it.
38. You have a fair idea of the nature of the traffic that would pass over the bridge? Yes; it would be, I presume, comparatively light. The work necessary to be done would cost, I think, from £200 to £300. In my estimate of the cost of the total length, I am supposing a single line from Clyde to the Parramatta River. The price proposed to be paid includes a double line, station works, and a branch running easterly to the river.
39. Leaving that portion of the line for the present, have you made a careful calculation of the cost between Carlingford and Dural? Yes.

40. Have you details of your estimate of the extension from Carlingford to Dural? They are as follows:—

L. Deane.

26th July, 1897.

5 Jan., 1898.

ROSEHILL TO DURAL.

ESTIMATED cost of a single line of railway from end of Mr. B. C. Simpson's present Terminus to Dural. Length, 9 miles 6 chains; 60-lb. rails; ruling grade, 1 in 40; sharpest curve, 10 chains radius.

Description.	Estimated cost.	Average per mile.
	£ s. d.	£
Earthworks	20,581 9 0	2,268
Culverts and box drains	4,397 15 0	.....
Over-bridges	4,549 3 0	501
Level-crossings, road diversions, and fencing.....	3,782 0 0	417
Permanent-way materials	5,612 16 0	618
Freight, &c.	160 9 6	18
Platelaying, at 1s. = £798 12s.....	6,468 12 0	713
Ballasting, at 3s. 6d. = £2,795 2s.		
Sleepers, at 3s. = £2,874 18s.	1,412 0 0	156
Station works, including sidings and signals		
Station buildings, waiting-sheds, £320; platforms, £300; loading-banks, } £200; stationmaster's house, £200	1,020 0 0	112
Water-supply.....	1,500 0 0	165
Gradient and mileage posts	136 2 6	15
Telegraph	136 2 6	15
Miscellaneous.....	1,000. 0 0	110
Engineering and contingencies, 12½ per cent. nearly	50,756 9 6	.....
	6,343 10 6	699
Total cost.....£	57,100 0 0	.....
Average cost per mile	£ 6,292 0 0	.....

41. Is that estimate for first-class construction? It is good construction.
42. But not of the highest class? It is of the best class with the rails—they are only 60-lb. rails.
43. Do you see your way to reduce that estimate of cost upon any of the items you have given? No; I have cut it down to the lowest figure.
44. The Committee, therefore, may regard your estimate as the lowest for which the line can be constructed? Yes.
45. What severance will there be, and what area of land will it be necessary to resume? I am getting a return prepared which I hope in a few days to be able to hand to the Committee. It is not yet ready. It will show what is orchard, what is pasture, and what is unimproved land.
46. Will you describe the grades between Carlingford and Dural? I have already mentioned the principal grades.
47. That is all you have to say at present in regard to the proposed extension? Yes; I have prepared for the Committee some comparative costs and lengths of the various schemes that have been proposed.
48. You have a comparative statement of the cost of other proposals which have come before you to connect Dural with either the western or the northern system? Yes.
49. The first proposal mentioned is that under consideration? Yes.
50. The next proposal is a line from Pennant Hills station to Dural, which is shown on the map by a dotted red line? Yes.
51. Will you give particulars of that? It is a connection which has been surveyed from the Pennant Hills railway station to Dural. It meets the proposed line at about 3 miles 21 chains, and from that point on to Dural it coincides with that line.
52. Three miles 21 chains is the length of the cross line? Yes.
53. From that point what is the distance? From that point it is 5 miles 6 chains to Dural.
54. So that the total length of the line would be—what? Eight miles 28 chains.
55. It would be less than the length of the proposed extension from Carlingford? Yes, about 60 chains less.
56. Would it be a more difficult line to construct than that under consideration? No, about the same.
57. Would the grades be easier along that line? No; they would also be about the same. About 1 in 40 would still remain the ruling grade.
58. Would that line serve the district as far as you know as well as the proposed line from Carlingford? I would rather not, if the Committee would excuse me, express an opinion as to how these lines would serve the country.
59. We may take it that the line from Carlingford to Dural, and the line from Pennant Hills to Dural would present about the same difficulties, and may be estimated at a similar cost? Yes; in one case the total is less because the distance is less.
60. You observe from the map that the dotted line joins the broad red line about 3 or 4 miles north of Carlingford? Yes.
61. Would the cost of construction from that point on to Dural per mile be the same? Yes; it is all the same class of country. The features are similar.
62. Have you considered that you would probably be obliged to avoid the route mentioned in Simpson's Act if Simpson's Railway were not resumed? You cannot make two lines of railway to Dural. You cannot go to Dural and avoid going near the route proposed by Simpson's line. Simpson's line, from the point where it meets the dotted line, right on to Dural, is practically the departmental line which was surveyed before.
63. Are we to understand that it would not be possible to construct the line shown from Pennant Hills to Dural without interfering with Simpson's line as it appears in the schedule to Simpson's Railway Act? No; it would not. If the Act gives Simpson the right to construct along that full red line, you could not get to Dural by railway without interfering with that right.

- H. Deane.
5 Jan., 1898.
64. Could you give us any other route which might be practicable at a similar cost? No other route is practicable. The line goes along the crown of the ridge. There is no other way of taking it. You might, perhaps, deviate a little from one point or another, but practically it would be the same line.
65. Then do you say that, assuming that under Simpson's Railway Act the right exists to construct a line as far as Dural, it would be necessary to arrange with the present owners for the right of construction? I think their right of construction has lapsed, but I am not sure of that.
66. Simpson's Railway Act was assented to on the 13th June, 1893, four years ago, and the termination of the extension from Rosehill is Dural, so that practically the terminal point would be the same as that contemplated by the dotted line from Pennant Hills? Yes.

THURSDAY, 6 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.	HENRY CLARKE, Esq.
The Hon. JAMES HOSKINS.	CHARLES ALFRED LEE, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	THOMAS HENRY HASSALL, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	GEORGE BLACK, Esq.
The Hon. DANIEL O'CONNOR.	FRANCIS AUGUSTUS WRIGHT, Esq.
	FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and further examined:—

- H. Deane.
6 Jan., 1898.
67. *Mr. Humphery.*] I believe you desire to refer to some statements contained in your evidence of yesterday? I was asked a question as to the cost of constructing a single line from Clyde to the end of the constructed portion of Simpson's line. I said I thought about £30,000. I adhere to that statement; it is about correct. That would include the bridge, which I should say could be constructed for about £10,000 to carry the heaviest engines; but it is to be pointed out that in the £25,000 proposed to be paid for this line and the Rosehill line, there is the double line from the junction to Rosehill. There are sidings, cross-over roads, and there is a long platform of about 900 feet at Rosehill, and the branch line down to the river. So that when you add the extra value of that double line and the station accommodation, and so on, as compared with the line beyond, I think the value of the works, so far as actual construction is concerned, between the junction at Clyde and the end of Simpson's roadway would be something between £40,000 and £50,000; added to that there would be the value of the land. If the £25,000 is paid for the lot, of course the land would come in as well. I am not aware what price has been paid for the land on the original line or on Simpson's line, but it must no doubt have amounted to something considerable judging from the experience we have had of railway resumption.
68. It may be put in this way—at the present time if the Government were to undertake the works which have been performed under the two Acts of Parliament, Bennett's Act and Simpson's Act, it would cost not less than £50,000? I believe it would cost between £40,000 and £50,000 for construction alone.
69. That would be exclusive of very heavy claims for compensation? Yes. The original cost of the Rosehill railway no doubt was far in excess of present value. I do not know that it was, but it probably was because at the time that railway was constructed prices were so much higher than they are now.
70. In your estimate you are dealing with the work as if undertaken at the present time? Yes; I may say that I have looked into Simpson's Railway Act and I find that the Act was assented to on the 13th June, 1893. In clause 1 there is provision that "The whole of the said railway shall be completely constructed and brought into use within five years of the passing of this Act." That would be as far as Dural. I cannot find that any extension of time has been given. I do not think any amending Bill has been introduced, consequently any rights for construction as far as Dural have practically lapsed because it would be quite impossible to construct almost any portion of the line within the five years.
71. *Mr. Hoskins.*] Is there not a provision in the Bill to the effect that if the line be not completed within a certain time the whole is forfeitable to the Government? No; the only mention of forfeiture is in connection with the deposit. Clause 1 says "Provided further that the said Benjamin Crispin Simpson should, within four months of the passing of this Act, lodge the sum of £3,000 with the Colonial Treasurer, and within twelve months from the passing of this Act spend at least £10,000 in the actual work of construction, to the satisfaction of the Minister. In the event of the latter sum being expended then the said sum of £3,000 shall be returned, but in default of the expenditure of £10,000 then the said £3,000 shall be forfeited." The clause also contains this provision: "Provided that the first section of the said railway should be completely constructed between the points above indicated, and brought into use within three years, and that the whole of the said railway should be completely constructed and brought into use within five years from the passing of this Act."
72. *Mr. Humphery.*] What is the penalty for non-completion? There is no penalty apparently except the lapse of rights. I understand that the Bank of New Zealand in offering to sell this line and the Rosehill line, cede with them all rights and privileges.
73. You produce a report by the Railway Commissioners dated 29th May, 1896? Yes; it is as follows:—
Office of the Railway Commissioners of New South Wales, Sydney, 29 May, 1896.
- The Hon. G. H. Reid, M.P., Premier and Minister for Railways,—
Rosehill railway, authorised by "Bennett's Railway Act of 1886," and an extension of that line to Carlingford (part of the line authorised by "Simpson's Railway Act of 1893" to be constructed to Dural).
- We beg to report that the negotiations in regard to the offer of the Bank of New Zealand for the sale of the above lines have resulted in the lines and all appertaining thereto being placed under offer for a sum of £25,000.
- We have inspected the property, and consider that the lines which have been constructed at a cost of about £110,000 could be advantageously taken over at this price. The interest on the purchase money at 3 per cent. per annum—the rate at which money can now be raised by the Government—would be £750 per annum. The proportion which has been paid to the Bank of New Zealand in connection with the Rosehill race traffic for the past five years has averaged £543 per annum,

annum, and there is a goods traffic at the present time which brings in about £120 per annum, a total of £663 per annum. No additional expense beyond what is now incurred by the Department would be necessitated in the working of this business, and a new traffic could be created over the railway by providing an economical service on the new section beyond to Carlingford. This extension, which has not yet been opened for traffic, has cost about £35,000.

H. Deane.
6 Jan., 1898.

The lines appear to have been well made, and only a small expenditure would require to be incurred before opening. We advise the purchase of the property on the terms named.

Attached hereto is a full description of the property, as well as notes of interview that preceded our examination of the line.

In the Act which we presume will have to be passed authorising the acquisition of the lines we would suggest that a clause should be inserted repealing the Acts under which the lines were authorised and giving the Commissioners the same powers under all conditions which they possess in connection with the Government Railways now vested in them.

In connection with the purchase it should be clearly understood between parties that the whole of the property is handed over free of all claims of every kind.

E. M. G. EDDY, Chief Commissioner.
CHARLES OLIVER, Commissioner.
W. M. FEHON, Commissioner.

Cabinet approve subject to the approval of Parliament.—G.H.R., 7/7/96. Inform Mr. Amos. Mr. Galloway.—F.K., 7/7/97. Done.—F.G., 8/7/96. The Secretary to the Commissioner for Railways. Please return.—F.K., 9/7/96. Seen.—E.M.G.E., C.O., W.M.F., 9/7/96 The Under Secretary Finance and Trade. Records.

I have also Mr. Firth's report. It is not very clear whether the full description of the property referred to is Mr. Firth's report or not, but I think it very likely that it is.

74. Is there anything which would lead you to suppose that that is not the document referred to in the Commissioners' report? I made inquiries this morning, and I found that Mr. Firth had reported to the Commissioners.

75. *Mr. Trickett.*] In the document you just read you mention £35,000 as being the cost of the railway. In a minute paper read to us yesterday it was stated that the line had cost £110,000;—is the difference between the two amounts made up by land resumption? I cannot say. The statement of the owners is that the line cost £110,000. That would of course include the racecourse line.

76. You cannot explain the difference between the two amounts? No; but I should take it that the cost of Simpson's railway, £35,000, included land, because I am quite sure that I could construct it for very much less than that. With the exception of the bridge, there is no work of any importance. The cuttings are light, and the only important embankment is the one between the racecourse and the river.

77. *Mr. Black.*] How many miles is the portion referred to as having cost £35,000? Three miles 24 chains.

78. The bridge cost about £15,000, you think? I believe it could be constructed for about £10,000.

79. That would leave £25,000 for 3 miles of construction? Yes.

80. Then it is probable that the estimate includes the cost of resumption? Yes.

81. *Mr. Hoskins.*] Would you run ordinary luggage trains over the bridge? No; it could not be used at the present moment—it wants stiffening.

82. *Mr. Humphery.*] Will you read Mr. Firth's report that has been referred to? Yes; it is as follows:—

Description of the branch line, Clyde to Rosehill, and extension towards Pennant Hills.

The Rosehill branch which is a double line to Rosehill, starts from a junction with the main Suburban line 4 chains west of Clyde platform; curves away in a northerly direction, and the country being generally level, very easy grades are obtained with light earthworks. The level nature of the country entails all roads intersected by the line being crossed on the level, and level crossings have therefore been provided at Clyde-street, the Great Southern Road, Parker-street, and Aston-street.

The lines are carried over Duck Creek and A'Beckett's Creek by substantially constructed bridges, the piers of which are of concrete, and superstructure of iron plate girders, with open transom deck, to which the rails are directly fastened.

At Rosehill Racecourse, 1 mile 14 chains from the junction, a platform (the face wall of which is concrete) about 950 feet in length and 40 feet wide is provided, and the station yard is well arranged for the shunting and quick despatch of trains.

From Rosehill a single line is carried on to the Parramatta River, a distance of 1 mile; the line curving sharply in a north-easterly direction. At the river a substantial wharf of timber, 50 feet by 20 feet, is constructed, and on the wharf a travelling steam jib crane of a capacity of about 10 tons has been provided. A goods platform (the walls of concrete) 200 feet in length, and siding accommodation sufficient to deal with a considerable goods traffic, have also been provided. A 50 feet turntable has also been constructed at this terminus.

The land resumed for railway purposes has a full width of 90 feet, and the boundaries parallel with the centre line of railway are fenced with wire fencing, the posts being spaced at 8 ft. 3 in. centres.

All level crossings are provided with well made gates, and the road approaches are in good order.

The drainage of the line is satisfactory, and I observed no places where the formation had been damaged by flood waters.

That portion of the branch between Clyde and Rosehill is laid with 71½ lb. steel T rails on sleepers 8 ft. x 9 in. x 4½ in., generally ironbark, spaced 2 ft. 9 in. centres, but the extension from Rosehill to the Parramatta River is laid with 70 lb. T iron rails on sleepers 8 ft. x 9 in. x 4½ in., spaced 2 ft. 9 in. centres. The line throughout is ballasted to a depth of 5 inches below the sleepers and well boxed up with sandstone ballast, and has been kept in very good order.

Extension towards Pennant Hills.

The Rosehill to Pennant Hills Branch connects with the Rosehill line at a point about 1 mile 20 chains from the junction of the latter with the main Suburban line, and takes a northerly direction in continuation of the main portion of the Rosehill Branch. This extension is a single line and well constructed, the permanent way being 71½ lb. steel T rails in 30 ft. lengths, on sleepers 8 ft. x 9 in. x 4½ in. (generally ironbark), spaced 2 ft. 10 in. centres. Sandstone ballast is placed under the sleepers to a depth of 5 inches, and the road is boxed up with similar stone to the top of the sleepers.

From Rosehill to Parramatta River the grades are easy, the maximum rise being 1 in 66, and this for only a short length of 7 chains; but from the river to the terminus the country rises rapidly, and to obtain reasonable earthworks and as direct a line as possible, gradients of 1 in 35 to 1 in 39 have been adopted. From the river to the terminus the total length is 2 miles 67 chains, and the length of steep gradients is as under, viz. :—

1 in 35.....	59 chs.
1 in 37½.....	61 „
1 in 39.....	31 „

Total..... 1 m. 71 chs.

These grades are, however, with the load on the up journey.

The land resumed for the purposes of the railway is 1 chain in width, except where station accommodation is required, and at such points extra land sufficient for the purpose has been taken. A good seven-wire fence with posts at 10 feet centres has been erected throughout to properly enclose the railway.

One important road only is crossed on the level, viz, Victoria-road; in all other cases under or overbridges having been constructed at road crossings.

With the exception of the bridge over the Parramatta River the whole of the under and overbridges are of timber, and are well finished and of good design. Over the Parramatta River an iron bridge of the through type in three spans of 100 feet each has been constructed. The girders are lattice type—rather shallow for the span—and are carried at the extreme ends on brick abutments; the two intermediate piers being piers of cast-iron cylinders filled with concrete.

Station

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Station buildings with passenger platforms and sidings for goods and other traffic are provided at Victoria-road, 2 miles 6 chains from Clyde; at Kissing Point road, 2 miles 43 chains from Clyde; and at the terminus at Pennant Hills road, 4 miles 36 chains from the main line junction. The platforms are about 200 feet in length, loop siding at the terminus is 200 yards over the points, and at other stations the loops are 150 yards over all.

The station buildings are of timber with iron roofs, and in all cases general and ladies' waiting rooms, ticket office, and latrine accommodation for gentlemen are provided. At Victoria-road, in addition to the accommodation for the public, a cottage has been erected which would be suitable for a gate keeper or officer-in-charge.

Brick culverts are constructed, where necessary, to carry off flood water, and side drains to keep the formation free of water are also provided.

T. R. FIRTH,
Engineer-in-Chief for Existing Lines.

83. You were examined yesterday with regard to the cost of various proposals which have been made for railway connections with Dural. You spoke yesterday of the cost of the proposed connection between Pennant Hills and Dural; the next connection proposed, I believe, was from Carlingford to Dural; I presume that would be from the Carlingford railway station? Yes.

84. What would be the length of line from the Carlingford railway station to Dural? Ten miles 3 chains.

85. And the probable cost? There is no actual survey over portion of the route; no actual sections have been taken, but I have assumed that the cost per mile would be the same as in the line submitted to the Committee. The total cost runs out at £63,156.

86. With regard to that proposal, have you personally examined the route between the Carlingford station and the road to Dural? I know it very well. I have often been over that country.

87. Would that be the most expensive portion of the line? No; it would be the least expensive portion, but to be on the safe side I have put it down at the average cost per mile of the proposal submitted.

88. Do you regard the estimate of £63,000 as a very full estimate? Yes.

89. Are you of opinion that the probable cost would be less than that? I am of opinion that it would be less than that.

90. At present you are not prepared to give any other than approximate figures? No.

91. Take the proposed route from Westmead to Dural which is shown on the map by a dotted red line, passing through Baulkham Hills and Castle Hill—what would be the length of that line? Ten miles 77 chains. It is estimated to cost £57,475, or £5,243 per mile. A survey of that line has been made, and sufficient data have been obtained to make an estimate with accuracy.

92. Have you examined that line personally? Yes.

93. Are you prepared to say that the probable cost would not be more than £57,000, everything included? Yes, but not including lands.

94. Is the country less difficult for railway construction than in the case of any of the other proposals with which we have been dealing? The first part of it is easier. You do not get into sharply undulating country until you get a little way out. The country is not so lumpy until you get to Castle Hill. The road from Parramatta to Dural runs on the top of the ridge. The country is a series of hillocks; the roughest part of the country is just beyond Castle Hill, where you see the sharp curve in the line.

95. It is between Castle Hill and Dural? Yes; especially for a mile or two beyond Castle Hill.

96. Can you make a comparison in any way between the cost of resumption in connection with these various proposals? I am afraid I am not in a position to do that. I have some information which I can hand you presently with regard to the country cut through on the Rosehill-Dural line and on the Parramatta-Dural tramway proposal. When I have more time I can obtain for you a description of the resumptions on the Westmead to Dural route.

97. Are we to assume that it would be necessary to resume land upon the whole length between Westmead and Dural? The line would first go through a reserve after leaving Westmead, but after passing the river it would go through private property nearly all the way; the class of country being the same, I should suppose that the resumption would be about the same per mile.

98. The resumption will be considerable in connection with any other proposal with the exception of the Clyde-Dural line? The resumption in that case is considerable.

99. But has not the resumption been paid for as far as Carlingford? Yes; but from Carlingford you take resumption into consideration. There would be less resumption by the tramway route.

100. Have you a list of the properties through which the railway would pass, between Carlingford and Dural? I have a Book of Reference which I could hand in, and I have a summary showing the different classes of land passed through. The total length of line is 726 chains, and the following are the particulars of the land:—

ROSEHILL TO DURAL RAILWAY.

From the end of Mr. Simpson's line as now constructed to Dural, the state of the land may be described as—

Orchard land	276 chains	=	38·00 per cent.
Old orchard	7 "	=	1·00 "
Grass land	320 "	=	44·00 "
Cultivated (crop)	24 "	=	3·30 "
Bush land (standing)	79 "	=	10·90 "
Roads	14 "	=	1·90 "
Held by Mr. Simpson's Co.	6 "	=	·90 "
Totals.....	726 "	=	100·0 "

5th January, 1898.

G. V. M.

101. Have you had any estimate made of the value of the land? No; I thought the Committee would get the information from another source.

102. Has any officer of the Department been instructed to obtain the information? I am not aware of it.

103. Do you know whether it is intended that Dural should be the terminus of the line or whether it is in contemplation to have an extension beyond? The line has not been surveyed beyond Dural and I am not aware of the matter ever having been under consideration.

104. Can you say in what direction the line would probably be extended? I should think it would probably be extended through Galston or on the Wiseman's Ferry Road towards the Hawkesbury.

105. That would be through Kenthurst? Yes; the good land divides there. When you get beyond Dural it becomes more patchy. Between Galston and the Wiseman's Ferry Road there is a gully. It is rough country along there generally. There is some good land, but it is more divided up. It is not so compact as it is between Dural and the Parramatta River.

106.

- H. Deane.
6 Jan., 1898.
106. The whole of the land in that direction is used chiefly for fruit-growing? Yes; all the good land.
107. In dealing with the several proposals to which reference has been made, it would appear that the cost of construction on the line from Westmead to Dural would be considerably less than that of any of the others without regard to the cost of compensation? The cheapest line would be that from Pennant Hills to Dural, the cost of which is estimated at £53,000.
108. I am speaking of the cost per mile? Per mile, the cheapest line would be the Westmead line, because the portion at the Parramatta end is much easier to construct.
109. The Westmead-Dural line would be 10 miles 77 chains compared with 8 miles 28 chains on the Pennant Hills route? Yes.
110. A proposal has been placed before you for the construction of a tramway from Parramatta to Dural? Yes.
111. Have you any particulars as to that? Yes; I had that proposal examined with a view to the getting at the cost of it as a tramway, not as a railway. It would be a tramway pure and simple with sharp curves.
112. A steam tramway similar to that in Sydney? Yes; very like that running out to Randwick, which goes partly along the road and partly off it. In order to get the grades you want, it would be necessary in a few places to leave the road.
113. Will you give us an idea of the route? I might make the preliminary remark that I have considered the question in two ways with different grades. As regards Parramatta, the line in both cases would follow the same route; but further on, when you get into the country, if you want to get the better grades, you will have to diverge more from the road.
114. At an increased cost? At a slightly increased cost. There is more in the way of resumption. You cut into more land. With 1 in 30 against, and 1 in 20 with the load, the total cost comes to £27,851, but with a grade of 1 in 50 against, and 1 in 25 with the load, the cost would be £1,100 more; but as against that you have to take more land. In the one case you have to go on to private property for 2 miles 59 chains, and in the other case 4 miles 2 chains.
115. Are you in a position to give us approximately the cost of resumption? I am not.
116. Upon what part of the line would resumption be necessary? In various places.
117. In the town of Parramatta would any resumption be necessary? Yes; but most of the resumption would be in the country. An example may be given at Castle Hill. There is a steep hill just beyond the centre of Castle Hill, where Pennant Hills road joins. That is one of the places where you must depart from the road if a tramway is to be made.
118. What is the length of the proposed tramway? Twelve miles 12 chains. That would be for the line with the steeper grades. The length of the line with the lighter grades would be 12 miles 14 chains. Practically they are the same length. The difference in cost is £1,100. There have been several routes proposed for going through Parramatta with a tramway. One proposal was to go along O'Connell-street and to cross the river by means of an existing timber bridge, just alongside the Parramatta Park, but the bridge is not constructed to carry a tramway, and it would be necessary to make a separate bridge; the river there is somewhat wide, and possibly the foundations would be deeper than lower down. I do not think that would be the best route to take. It has also been proposed to traverse Church-street, and go over the stone bridge. That, I think, is objectionable also. Then it has been proposed to run along Smith-street, and to cross the river more or less diagonally, and get into Sorrell-street; but the route which I consider would be the best would be from the station down Taylor-street until you get to Macquarie-street; then along that street, turning off at Marsden-street, until you get to the river—crossing the river on a separate bridge below the dam. Here it is all hard rock, and the foundations would not be troublesome. The line after getting to Villiers-street, would have to turn off at the back of The King's School, and get into O'Connell-street. That is where the principal resumption in the town of Parramatta would occur on that route. From there on the line would follow the road until you get nearly out of Parramatta. It would then take a bend on to the main Dural road. At each of the bends it would be necessary to make resumptions to get the curves. The line would then follow almost entirely the main Dural road.
119. Can you distinguish the grades upon different portions of the line—that is the severe grades and the easy grades? I will have a return prepared. I have not the information here.
120. Would the annual cost of the tramway be greater than the annual cost of the railway? I have not gone into that matter; but I can do so if required.
121. You have not considered the question whether a tramway would serve the people equally well with a railway; but can you say, from your experience, and from your knowledge of the district, whether a tramway similar to that at Camden, would carry all the produce and passengers of the district? A tramway, no doubt, could be made to carry the produce of the district; unless the rolling-stock could be made so as to be suitable for running over the suburban lines, the fruit cases would have to be shifted from one truck to another. There is, of course, that objection.
122. Could not the fruit trucks be similar in design to those used on the suburban lines? It is a question of wheels—of gauge and flanges.
123. What is your opinion, having in view the fact that the district is essentially a fruit-growing district, and that it would be necessary for the people there to find their markets chiefly in Sydney? I think that if it were decided to make a tramway in preference to a roadway, some arrangement could be made by which the transshipment of the fruit cases could be properly and safely effected without damage to the fruit.
124. *Mr. Farnell.*] Could it not be done without transshipment at all? Not unless you could shift the bodies of the waggons or the boxes in the same way that coal is shifted from one truck to another.
125. *Mr. Humphery.*] Are you quite clear upon that point, that it would not be practicable to use the tramway trucks on the suburban railway line;—how is that managed on the Camden tramway? That really forms part of the railway system.
126. If it can be done at Camden, why is it not practicable to adopt the same system in this case? It is a question of rolling-stock. You could adapt the rolling-stock which would run on a tramway, if you had no guard-rails, so that it would run on a railway; but you could not, on a tramway with sharp curves, take the ordinary rolling-stock of a railway.
127. Are the curves on the proposed line of a character which would render it impracticable to adopt the system which at present obtains at Camden? I think so. In working the tramway scheme out I have assumed that curves of 3 chains radius may be used.

- H. Deane. 128. What is the sharpest curves on the Camden line? I am not sure; but I think it is much flatter than that.
- 6 Jan., 1898. 129. Do you think it would be practicable to so construct a tramway line as to render it suitable for railway trucks similar to those in use at Camden? I do not see that it would be practicable to construct a tramway passing through the town of Parramatta so that it would take the ordinary rolling-stock of a railway. You could not get it to pass round the curves of the streets without a considerable amount of resumption at the corners to get the proper curves in.
130. Therefore the Committee, in considering the various proposals, must regard the tramway proposal as an entirely separate service? It is practically a separate service.
131. Necessitating the transfer of all produce at the railway station at Parramatta? Yes.
132. *Mr. Hoskins.*] Even if you had a light line of railway, such as they have in France? Even then you would have to tranship. That is the disadvantage under which a tramway labours.
133. *Mr. Humphery.*] Have you considered whether it would be practicable to construct rolling-stock suitable both for a tramway line and for a suburban railway, so that you might be able to carry goods and produce without transferring them from tramway trucks to railway trucks? I have given the matter a good deal of consideration, but I must confess that I have not arrived at a definite conclusion. I can scarcely see why some arrangement should not be made, provided always that you could make your tramways through the town with guard-rails. If you have to fix guard-rails to your tramway it means that the wheels have to have small thin flanges, which would not be suitable for running at speed over a railway; but if you can leave out the guard-rails, as I certainly should do outside the town of Parramatta, you could use the ordinary type of railway rolling-stock, and only the question of curves would come in. It resolves itself into a question whether suitable rolling-stock could be used for the tramway which could be safely run over a railway.
134. What would be the cost of constructing a tramway, instead of a railway, from Carlingford to Dural? I have not gone into the matter; it is a question of curves; but I should think it would probably be constructed for a little more than half; but then you would lose all the advantages of a railway.
135. *Mr. Farnell.*] And there would be the same difficulty of transhipment at Parramatta? Of course, if you use tramway rolling-stock.
136. *Mr. Humphery.*] What difficulty would there be in bringing your tramway into Parramatta station, from Carlingford? Over the bridge there would be no difficulty.
137. Is this the position—that the cost of the tramway from Parramatta to Dural would be less than half the cost of the cheapest railway communication between the existing line and Dural? No; not quite; it would be rather more than half the connection with the Pennant Hills station, on the northern line.
138. From your knowledge of the district, could you say that it would be fairly served by a tramway? That is a point upon which I should prefer not to speak. It would serve it of course in a different way. It is likely that there would be some passenger traffic springing up. If the transhipment of fruit could be properly effected, I should say that a tramway would serve the district fairly.
139. Is settlement fairly close at any of the points along the proposed route? The country is settled all the way along, but the houses are not close together.
140. *Mr. Trickett.*] Are you able to say whether the running of the tramway between Campbelltown and Camden is satisfactory? I am not in a position to say that. The Railway Commissioners do not now give any details in their reports of the working of that tramway.
141. I see that in the minute the Railway Commissioners laid before us, this paragraph occurs:—
The purchase of the line at the figures mentioned has already been recommended by the Railway Commissioners.
? That is the line from Rosehill to Carlingford.
142. Do you know why it is considered desirable to do so? The report of the Railway Commissioners read this afternoon I think explains that.
143. Are trains being run upon the line from Rosehill to Carlingford? No.
144. It has not been used? No.
145. Have you reported upon the condition of the line? No; Mr. Firth reported for the Railway Commissioners.
146. And since then it has not been reported upon? No.
147. What is the date of Mr. Firth's report? There is no date to the report, but it must have been made shortly before the Railway Commissioners' letter.
148. Some time in 1896? About April or May, 1896, I think.
149. It is stated that the line from Rosehill to Dural would cross the Parramatta Road four times;— would there be level crossings at those points? Yes.
150. That would involve gatehouses in each case? I should not think gatehouses would be necessary. Cattle pits might be necessary. I do not think it would be necessary to have a gatehouse unless the line approached the crossing with a sharp curve in a cutting.
151. You have not gone into that in your detailed estimate? Not so far as to give a final decision as to what is required.
152. If gatehouses and gatekeepers were required, that would considerably increase the annual cost? Not very much; I think by about £150 a year.
153. Judging from your answers to Mr. Humphery, you do not favour the tramway proposal? I see that there are many objections to a tramway. The great advantage lies in its cheapness.
154. As against that, there would be the transhipment of goods and passengers? Yes.
155. Are you prepared to say which of these proposals you would recommend? I should have to give a conditional recommendation. I should say that if it be worth while to spend £25,000 for the existing line, the best line to Dural would be undoubtedly the continuation of the line; but if that line had never been built I should recommend the branch line from Carlingford on the northern line, because, although it is a little more costly than the connection with Pennant Hills, it would, I think, give a better junction and would also give a shorter distance to Sydney.
156. *Mr. Clarke.*] It is stated in the report before us that the line known as the Bennett and Simpson's line cost £110,000. Is not that an excessive cost? The work could be done for very much less than that now.
157. Material and everything is cheaper at the present time than when that line was constructed? It is cheaper now than when Bennett's line was built.

158. The Commissioners report in favour of purchasing the existing line for £25,000? Yes.
159. Would that be a good bargain for the country? It depends upon the returns which are expected.
160. But if the proposed line is not carried out, what would be the utility of a line costing £25,000? The Railway Commissioners show in their report of May, 1896, what they propose to do with the line if purchased. They recommend the purchase of the line independently of any extension.
161. What use would it serve? I suppose they would have the Rosehill traffic and some little traffic from the residents beyond.
162. *Mr. Lee.*] According to the return you have furnished, it would appear that if the Rosehill line were purchased and the extension were carried out to Dural, it would give a length of 13 miles 54 chains between Clyde and that point? Yes.
163. The cost, exclusive of compensation, being £82,100? Yes.
164. The line from Westmead to Dural is estimated to cost £57,475, and the line from Carlingford to Dural £63,156; the first estimate, therefore, shows a large increase? Yes.
165. In the case of the Westmead line you have a distance of 10 miles 77 chains, estimated to cost £57,000, whereas in the proposal under consideration you have 9 miles and 6 chains, also estimated to cost £57,000? Yes.
166. How is the difference made up;—is it represented by probable compensation? The cost per mile is greater in one case than in the other.
167. Westmead is about 1 mile west of the Parramatta railway station? Yes, nearly that.
168. Has there been any exploration made of that country since 1887;—it would appear from the general report that Mr. Sutherland ordered a survey of that line in 1887;—has anything been done since? Yes; the country has been examined since.
169. Do you happen to know whether there has been any advance in settlement along that route since the survey was made in 1887? I do not fancy there has been very much.
170. We have an estimate of the probable traffic in 1887, but we have nothing to show whether the population or traffic would show any increase at the present time? There has been a great deal more land turned into orchards, although it is possible that the population has not largely increased.
171. But the conditions in the direction of settlement must have changed in the ten years? Yes; there would be a considerable increase in produce.
172. I presume the Committee would be safe in assuming that they cannot rely upon the estimate of traffic in 1887 as applying to the present time? Yes.
173. Apart from the existence of this piece of private railway, are you of opinion that that portion of the county of Cumberland could be more equally divided by another railway than by an extension of the private line? What suggests itself with regard to that line, is that it runs almost into close competition with the northern line; it will go very close to it.
174. What would be the distance at the nearest point? Not more than 1 mile. I do not think it would be more than a mile straight across.
175. That in itself is a proof that the western portion of the fruit-growing country would be very little better served than it now is by the northern line? Yes.
176. Which of the centres in that direction do you think it is desirable to touch? Supposing this line had not been made at all and that it was desirable to make a railway to the district, I think there can be little doubt but that it should come through Castle Hill.
177. To what point? To Parramatta.
178. You think that that would be the proper way to penetrate that fruit-growing country? That is, always provided that you want to serve it, but if you want to make the shortest and cheapest line and the best connection with the country beyond Castle Hill, I should recommend, if this line had not been constructed, a branch from Carlingford railway-station on the northern line.
179. Touching Dural only? Yes.
180. Have you made an estimate for a railway from Parramatta to Dural? No. A survey was made of a route junctioning with the main line on the Sydney side of the Parramatta station, but I have not done anything with it myself, nor have I recommended that the estimate should be revised, because I do not see that it has very much to recommend it. It would not come into Parramatta station. You would want a separate junction.
181. The question of railway communication direct between Parramatta and Dural has not received much consideration? No; it has been considered that the Westmead junction would be the best with Parramatta.
182. The Department appears to have confined its attention to the estimated cost of a tramway from Parramatta to Dural? Yes, that has been considered.
183. For some reason the estimate of a railway between these two points has dropped out altogether? You cannot conveniently get into Parramatta station by a railway. The only way of getting into Parramatta by a railway is to junction with the line on the Sydney side of the station. If you junction with the line on the Penrith side to make use of the Parramatta station, bringing the traffic in the right direction, you would have extensive viaducting across the town.
184. You cannot connect immediately with the station at Parramatta? Not without serious expense.
185. If you wish to do so you must come on the east how far? On the east the junction would be somewhere about Harris Park and on the west side at Westmead.
186. That the Department accept as final? Yes. Of course if you junction at Westmead you could run your trains into Parramatta.
187. But those are the two points on the main line where the take-off must be? Yes.
188. *Mr. Gilliat* and *Mr. Alexander* reported upon this question some years ago—I think in 1890? Yes. A great deal of valuable information was contained in that report, and it is a pity that it is not to hand. It could be easily supplemented and brought up to date, but *Mr. Alexander* has not his notes and he has no draft copy of the report. The report is valuable more from the information it contains than from the conclusion it draws.
189. *Mr. Roberts.*] In answer to *Mr. Trickett* you expressed the opinion that in the event of the line from Rosehill to Carlingford not being purchased, or in the event of your commencing *de novo*, you would favour a line from Carlingford Station, on the northern line, to Dural? If it were wanted that is the junction I should adopt if the other line were non-existent.

H. Deane.
6 Jan., 1898.

- H. Deane.
6 Jan., 1898.
190. In expressing that opinion, have you compared the estimated cost of a connection by way of Pennant Hills with the cost of that line? Yes.
191. The cost of the Pennant Hills connection is estimated to be £53,000? Yes.
192. Whereas the estimated cost of the Carlingford connection on the northern line is £63,000—a difference of £10,000? Yes.
193. Having that increased cost in view, do you still adhere to the opinion you have expressed? I have explained that the estimate I gave for the Carlingford-Dural line is undoubtedly excessive. I have no actual survey of the cross country connection, and I have, therefore, put it down at the average cost of the Rosehill to Dural line, but I am quite sure that it could be made for much less than that. Probably the cost would be brought down £2,000 or £3,000, but it would still be more costly than the Pennant Hills to Dural line. On the other hand, there would be a saving in distance, and it seems a more direct and better route on the whole than the one involving the Pennant Hills connection.
194. When you say a better route what do you mean? It is a more direct route.
195. But is not cost one of the chief items for consideration;—there is a difference of £10,000 in the estimated cost of the two lines? That might, perhaps, be reduced to £6,000 or £7,000.
196. From an engineering point of view you still prefer the junction at Carlingford on the northern line? Yes; on account of its giving a shorter and more direct line.
197. Have you any idea as to the earnings of the line from Clyde to Rosehill? No.
198. You have been over the line which has been offered for sale to the Government? Yes; I have been over the whole line up to Carlingford.
199. Is the same area of land reserved on each side of the line as is usual? There is enough. I think it is a chain and a half on the Rosehill line and a chain on the line beyond, with a little more for stations.
200. Is the line fenced? Yes.
201. Is the line in what I might term good working order;—would any expenditure worth mentioning be necessary to fit it for immediate use? No; it is in fairly good working order. I should insist on a little expenditure on the bridge. That would be all.
202. Have you any knowledge as to why the line from Rosehill to Carlingford has never been used for traffic? No; I do not know anything about it; it has never been passed by me. The owners have not applied for the line to be passed.
203. Is the line fenced all the way? Yes.
204. Are there any station buildings upon it? Yes; there are some small station buildings.

FRIDAY, 7 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY,

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the expediency of constructing a Railway from the Terminus of the Rosehill Railway to Dural.

Isaac Chapman, Manager, Rosehill Railway, sworn, and examined:—

- I. Chapman.
7 Jan., 1898.
205. *Chairman.*] What is your position? I am a company manager, and manager of the Rosehill Railway. I was in the employ of the Bank of New Zealand up to the 31st December. For various reasons I resigned at that date. I have taken up other business, and it suited me better to leave their service.
206. *Mr. Trickett.*] You were with the Bank for a number of years? For twenty years.
207. Therefore, you were with them at the time the private railway under the consideration of the Committee was originated? Yes.
208. When was that? I think in about 1886.
209. What position did the bank hold with regard to that railway at the start? The first Act was in the name of John Bennett, and is known as Bennett's Railway Act.
210. That was the Act enabling John Bennett to construct a railway from near the Clyde railway station to a point opposite Old Redbank? Yes.
211. Did he construct the whole of that line? Yes.
212. Then there was another Act known as Simpson's Act, authorising the extension of the railway known as the Rosehill railway, from a point at the north end of the Rosehill railway station, crossing the Parramatta River and terminating at Dural? Yes.
213. Under the first Act the railway was constructed to a point opposite Redbank? The terminus is a little lower down the river, owing to engineering difficulties. The line was built $\frac{3}{4}$ of a mile further than Redbank.
214. Under the second Act the line was continued as far as Carlingford? Yes; the first section.
215. How much of the railway has been worked regularly since its construction? The promoters have not themselves worked the railway. The Rosehill line has been worked under an arrangement with the Railway Commissioners which exists at the present time. The Commissioners run trains carrying passengers and goods to the Rosehill Racecourse, and to the terminus at the wharf.
216. Are trains run every day? I think three or four times a week for goods traffic down to the wharf.
217. As far as Rosehill is concerned trains are run on the day of the races, and on the occasion of great public gatherings? Yes.
218. The powers under the two Acts to which I have referred are now held by the Bank of New Zealand? Yes.
219. By mortgage or absolute transfer? By mortgage, I think.
220. Is the Bank in possession? If I remember rightly, the Rosehill railway stands in the name of the Bank of New Zealand; the extension of that railway stands in my name. It did stand in the name of Mr. B. C. Simpson, who promoted the railway, but it was transferred from him to me.
- 221.

- I. Chapman.
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221. At any rate the Bank, if it has not foreclosed, is now the possessor of any benefits derivable from these two railways? Yes.
222. Can you tell us what the arrangement is between the Bank and the Government, as to the running of these two lines, is it for a certain sum of money, or for a percentage? The arrangement shortly is this:—for passenger traffic the Department runs the trains and provides the staff, and we maintain the railway; the Commissioners allow us 4½d. per passenger irrespective of class.
223. That is on all occasions? Yes; unless in connection with the Eight-hour demonstration, when the Commissioners make a lower charge with which we have to fall in. We charge for Eight-hour Day a lump sum of £20 for the use of the line.
224. Is there a similar arrangement with regard to goods? In regard to goods we get a percentage on the basis of mileage according to the Commissioners' schedule, and in addition to that we make a charge of our own for shunting purposes to the Kerosene Oil Company of 8d. per ton. We make a charge to the Graziers' Meat Company at the terminus of 2d. per ton. That is a shunting charge in addition to what we get out of the Department.
225. Have you any statement showing us what has been the yearly profit upon this line? The total earnings from traffic from the 1st January, 1888, when the line was opened, until the 30th November, 1897, were, for passengers, £5,611 11s. 11d., and for goods traffic, £302 2s. 1d., or a total of £5,913 14s.
226. That would be for nine years? Yes.
227. An average of about £600 a year? That is about it.
228. Is that profit? No; that is the total earning. The maintenance charges for the same period amount to £3,846, more than one-half the amount. I should like to mention the disabilities under which we labour in connection with the Act. We tried to get these disabilities removed when the late Mr. Eddy was in office. We brought under his notice an Amending Act which we proposed to bring before Parliament; but he would not approve of it, and it did not therefore go any further. In the first wording of Bennett's Act, in reference to the rates, it is said that the rate should be the same as on the Government Railways between Sydney and Parramatta. That is a peculiar wording, because the railway has been constructed beyond Parramatta. Still, it is in the Act, and under that Act we have been advised legally that we cannot claim for more than the ordinary mileage rate; we cannot claim any terminal rate. We had no minimum rate under that Act, and the Commissioners have a minimum rate under all their Acts. As you are aware, they can make a minimum charge for 10 or 15 miles. We cannot do that under our Act. Under Simpson's Act I think there are two minimums, and when we asked the late Mr. Eddy to allow us to put before Parliament an Act to amend it, he stated that we had already two minimums, and he said there would then be a third minimum if we liked to enforce it against the public. We should not have done so, because the rate would have been too high; still we should have had the legal right to do so; therefore he objected to the amendment. Of course, if the Government were operating a railway of which they were the owners, they would get their minimum and terminal charges under their own Act.
229. The seventh section of Bennett's Act is in these terms:—"The said railway shall be open to public use upon payment of the tolls or charges as follows—that is to say,—for passengers, a sum not exceeding 6d. per head, each way"; you do not complain of that? No.
230. The section continues,—“For goods, the same rates per mile as are charged on the Government railways, and for this purpose such railway shall be deemed to be a continuation of the Government railway between Sydney and Parramatta”; will you explain how that operates against you? I will mention an instance: The Kerosene Oil Company had a considerable traffic from Joadja Creek to Rosehill. We could only charge under the Act the actual mileage basis. Supposing the class was 1d. per ton, per mile (the distance from Clyde to Rosehill terminus is 2 miles 20 chains), you could therefore only charge 2½d. The Commissioners brought the loading from Joadja to the Junction, and it would pay no company to transfer the goods out of the Government waggons at Clyde, take them to the terminus, and unload them again at 2½d. a ton; whereas the Commissioners having brought the loading the whole way (70 or 80 miles), had a consolidated charge for the whole distance, and the terminal shunting charge at the other end, which would pay them. That has been our difficulty all through. We have had large inquiries for wheat,—some thousands of tons of American wheat we could have conveyed over the line to Mr. Brunton's mill. It could have come out of the ship on the river, and could have been taken direct by us to his works. The Commissioners said,—“You can bring it so far, and no further; directly you bring it to the Clyde Junction we want our rights.” Mr. Brunton would have gladly paid us 6d. per ton to bring the wheat from the terminus to the Clyde station; but when the Commissioners had to handle it a short distance, they wanted their minimum, which was probably 1s. 6d. a ton; therefore I went so far as to suggest to Mr. Brunton that, to get over the difficulty, we should bring the wheat and flour to our terminus at Clyde, and cart it across the street, which we could have done for 5d. or 7d. a ton. That would have been a saving of 1s. upon the Commissioners' charge. Mr. Brunton was willing to do this; but, as it is not a secret, I suppose I may say that he was frightened of falling foul of the Commissioners over his other country business. Therefore the arrangement fell through. Those are two examples of how the wording of the Act has spoilt the Rosehill Railway. It has been quite impossible to work the goods traffic profitably.
231. In order to make the matter intelligible to outsiders will you just state where Mr. Brunton's mill is situated? Mr. Brunton's mill adjoins Hudson Brothers' works at Clyde. There is a narrow lane or street between the two works. The Clyde Railway Station is right opposite. Mr. Brunton's works are on the south side, and the station is on the north side.
232. The wheat could have been brought by lighter up the Parramatta river to the wharf, and could have been taken by your railway to Mr. Brunton's works, which would have been a cheaper way than bringing it all the way up the railway line? Yes. The Government levy a wharfage charge at Darling Harbour, and they had 13 miles of carriage as against, in this case, the lighterage up to the wharf, and a nominal charge for taking the wheat over our line to the works. The saving would have been considerable, probably 1s. a ton. Owing to Mr. Brunton's larger business with the Railway Department he could not afford to enter into the arrangement with us.
233. And although you interviewed the Commissioners you could not get the Act altered? No. A great deal of correspondence has gone on during the last few years in an endeavour to get the matter remedied because the unfortunate wording of the Act has practically killed Rosehill.
234. The figures you have given us showing the gross returns do not agree with the statement which was laid before us yesterday under the hands of the Railway Commissioners, dated 29th May, 1896, in which
it

- I. Chapman. it is said "the proportion which has been paid to the Bank of New Zealand in connection with the Rosehill race traffic for the past three years has averaged £543 per annum, and the goods traffic at the present time is bringing in about £120 per annum, being a total of £663 per annum? I should think that would be correct. The figures you have there would be the gross amounts; you have to take off the maintenance charge.
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235. Could you let us know how much per annum the Bank of New Zealand is to the good in respect of this railway—I mean as regards net profit? I can do so. No interest has been charged since 1894, but I can give you the difference between the net receipts and expenditure.
236. Will you produce a tabulated statement showing how the matter stands? Yes.
237. I suppose the Railway Commissioners did not furnish you with a statement of what they received in connection with this line? No; they merely handed us our proportion.
238. Is the bank the original mortgagee of both these properties, or have they fathered the concern from the start? They advanced money.
239. I suppose that in case of necessity the Bank has full power to sell these railway lines, or any portion of them? Yes.
240. Can you tell us what amount is owing to the bank? The Rosehill railway proper, on the 30th September, 1894, the last date upon which any interest was charged, showed a debit balance of £53,837; the extension railway showed a debit balance of £43,174; together, about £99,000.
241. Is that merely in respect of the railway line? Yes; the racecourse has nothing to do with that.
242. The land is in a separate account? Yes; the racecourse has nothing to do with the Bank of New Zealand; it was floated into a company some years ago.
243. We understand from papers submitted by the Department that the Bank, a little while ago, was willing to sell the property representing this £99,000 for £25,000? Yes.
244. That is for the two lines of railway? For the whole thing as it stands.
245. That would include all the land required for railway purposes? Everything complete.
246. What is the width of these lines of railway? Upon the Rosehill railway, from Rosehill to the station, there is about 100 feet between the fences. It has been placed under supervision by the Railway Commissioners, and is, of course, of their gauge, and up to their usual standard. Up to the racecourse it is a double line, with a third siding on the racecourse station for shunting purposes. There are all the necessary cross-over roads, and that sort of thing. There are signals at the station at Rosehill, and there is a marshalling station there for the traffic officer of the Department. From that point to the wharf terminus it is a single line; I think the width would be 66 feet. I might add that at Rosehill there is a platform 1,000 feet long, with crush gates similar to those at Flemington Race-course. At the river terminus there are three sidings, or station platforms. There is a substantial wharf where the steamers can come up and unload; and there is also a crane for lifting goods into or out of barges or lighters. There is no shed; but there is a turn-table for the engines.
247. As to the wharfage rate? We pay the Government £20 a year for a wharf license.
248. Then as to the line on to Carlingford? It turns away to the left just after leaving the Rosehill racecourse and crosses the Parramatta River near Rydalmere Asylum. It crosses alongside the Asylum and Subiaco Convent at Rydalmere to the Kissing Point Road. It then passes through some bush land and some ordinary orchard settlement up to Carlingford at a distance of 3 miles 22 chains.
249. Is it a finished line? Yes. There are the ordinary station buildings. There are three stations. One at Kissing Point road, another about 1 mile further on, and a third up at Pennant Hills. They are substantial station buildings with platforms and all the convenience similar to those upon the ordinary suburban stations on the Government railways.
250. Are the lines of rail laid the whole way? Yes.
251. At a 4-feet 8½-inch gauge? Yes.
252. Is the bridge which you pass shortly after leaving Rosehill the property of the company? Yes; it is a steel bridge on steel cylinders across the Parramatta.
253. It is not built for heavy traffic? It is built for ordinary 60-ton engines.
254. Have you had any 60-ton engines over it? We have had a 60-ton engine over it frequently; but I believe, as far as we know from our own engineer, Mr. B. C. Simpson, that it will carry any traffic.
255. Can you give us in detail what the two works cost—the line down to the wharf and the extension to Carlingford? The total cost of the Rosehill line from Clyde to the Parramatta River is, exclusive of interest, £41,894, and of the other line, £43,174.
256. That is the actual expenditure upon the works? Yes.
257. Then there would be the land resumption? I think the figures I have given include that.
258. Can you furnish the Committee with the cost of the land resumption apart from the actual expenditure upon the work? I will do so.
259. Can you tell us how it is that the extension from Rosehill to Carlingford has never been used as a going concern? It is partly because we could not come to any terms with the Railway Commissioners. That is where the trouble comes in again. We should have to carry the traffic over the Rosehill line, and under that Act we are precluded from making certain charges. From inquiries we made there would have been a freight of 51,200 cases of fruit last year. The Department have a low charge from Parramatta, and we could not compete at that rate, carrying the fruit over both lines and allowing a percentage upon it.
260. At the rate provided for under section 7 of the Act it would not have paid? No; but it would pay the Commissioners if they had the handling of the whole of it.
261. But it would not pay to work the line separately as a branch line? No. Mr. Simpson reported as to the probable traffic upon the railway before it was built. He thought that under certain conditions the extension would yield about £1,900 a year, but taking matters as they stand at present my estimate is about £800. I am referring now to the first section.
262. I suppose the reason why the line has never been extended beyond Carlingford by the promoters is because of the failure up to that point;—I suppose it was thought that it was of no use to carry the line further? It was not that altogether. I might mention that the negotiations with the Government for the purchase of the railway have been going on for a considerable time. I should think it is quite twelve months since Mr. Reid made an offer to the Bank of New Zealand to purchase the line. As an officer of the bank I have seen a letter from Mr. Reid offering to purchase the line for £25,000. I think it is quite twelve

twelve months since that offer was made. While the negotiations for the purchase were proceeding the proprietors did not see any use in going to the expense of putting on engines and trucks, because, when Mr. Reid made that offer, we assumed that within a month or two the line would be the property of the Government. However, the proposal was thrown out in the Lower House, and it is now before you. The matter has been hung up, and we have felt that it was of no use to go to the expense of engines and trucks if the system were to be run only for twelve months. I have recommended the Bank of New Zealand ever since the offer was made to do nothing.

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263. What did you estimate that the goods-traffic would amount to up to Carlingford? My estimate was 60,000 cases of fruit, which I reckoned would yield, at the Commissioners charges, £375. Including the shunting charges, I estimated a total receipt of £750. If we started the line to-morrow with all the disabilities and with all the trouble in the district at the present moment owing to the drought, I reckon that it would pay for itself straight away—that the receipts would just about pay working expenses, that is, running our own engines and employing the Commissioners' waggons to carry the stuff, and allowing them certain percentage.

264. We have not an estimate by the Commissioners of what the earnings would be as far as Carlingford, although we have their estimate for goods and coaching as far as Dural;—have you gone into that question? No.

265. They put down the probable earnings as far as Dural from Clyde at £1,025 per annum? I think the traffic is very much under-estimated.

266. Are you in a position to say that the probable earnings of a railway between Carlingford and Dural would be quite as much as the earnings of the railway between Carlingford and Clyde? I should think quite as much. The best part of the district is from the present terminus out to Dural.

267. It is a larger fruit-growing district? Exactly. The area affected would be between Beecroft, Hornsby, and Dural to Parramatta. We estimate from Eastwood, 80,000 cases; from Carlingford, 85,000 cases; from Beecroft, 33,000 cases; from Thornley, 95,000 cases; from Hornsby, 39,000 cases and from our side of the Parramatta district, 180,000 cases.

268. In your estimate with regard to Hornsby you go only midway between Hornsby and Dural, I presume? Yes; because you cannot say how much would go to Hornsby and how much to Dural. A good deal would depend upon the road; it might be handier to go to Dural than to Hornsby; we have taken the traffic up to a point midway between the two places. I estimate that about one-third of the total I have given would be sent by steamer down the river from Ryde, Ermington, and other places.

269. Taking one-third off your estimate for the river traffic, you think that a railway to Dural would bring down to Clyde, and to your wharf at Redbank, how many cases? From 90,000 to 100,000.

270. What would be the value of that freight? Our proposed charge was about 1½d. a case, or about £500 in round numbers. Of course we are in the unfortunate position of having to work under an Act of Parliament which gives us no latitude in any way. The Commissioners can make charges which we cannot make.

271. This £500 from the area you have named does not seem to come up to the amount you said you would get from Carlingford? I said there would be 60,000 cases up to Carlingford. It is hard to say authoritatively what the quantity would be between Carlingford and Dural. The estimate of 180,000 cases in the case of Parramatta is based upon the quantity going through the Parramatta station. How much of that would come from beyond Dural and how much from between Parramatta and Carlingford I could not say.

Hugh McLachlan, Secretary to the Railway Commissioners, sworn, and examined:—

272. *Mr. Clarke.*] Have you any statement to make with regard to the proposed railway from Clyde to Dural? The Commissioners have made a report upon the proposal which I believe has been already laid before the Committee.

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273. You have nothing to add to that report? No.

274. Are you aware that two lines of railway—first Bennett's railway and then Simpson's railway—have been constructed between Clyde and Carlingford? Yes.

275. It is proposed now to extend those lines from Carlingford to Dural? Yes.

276. Do you think that extension would pay? In the opinion of the Commissioners the line would not pay, but would involve a heavy loss.

277. Have you any reasons to urge in support of that conclusion apart from those mentioned in the Commissioners' report? Nothing further. The Commissioners went over the line and carefully looked at it. Mr. Harper was over it beforehand.

278. The Commissioners have recommended the purchase of the lines already completed for the sum of £25,000? Yes.

279. Can you give any reason for the proposal to purchase this railway if it is not intended to extend it towards Dural? The Commissioners think that the purchase is one which might be made in view of all the circumstances.

280. *Mr. Hoskins.*] But they do not recommend the extension of the present lines? No.

281. *Mr. Clarke.*] Is it not rather strange that the Commissioners should favour the purchase of the line which has been constructed to Carlingford, and that they should not recommend its extension? One reason in favour of the purchase which, perhaps, if not mentioned in the report, I might now mention, is that there is already a certain amount of traffic on the Rosehill line. The Commissioners mention in their report that the amount paid to the company for passenger traffic has averaged £543 for some five years past, and for goods traffic £120 in addition. There is also to be considered the benefit which the main line has been receiving. Supposing the company declined to keep open the Rosehill line and we lost the whole of the race traffic, a good deal of traffic would be lost to the main line. In 1895 the proportion we received for the Rosehill race traffic was £2,300. Last year the amount was very much smaller, standing at £1,300; but it was an exceptional year. The average for the last five or six years has been about £2,000. In 1895 the amount was £2,300, and in 1896, £2,100; but last year, owing to the smaller number of race meetings, and less interest in the meetings, the amount fell down to £1,300. We get a certain fare for the race-course traffic to Rosehill, and we have to pay to the Rosehill Company out of that fare 4½d. per head; their proportion came to £543 for the years I have named. Our proportion, in a good year, would come to over £2,000. There is a certain amount of traffic upon the line already, and as it is being

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being obtained at a very cheap rate, the Commissioners thought it would not be an undesirable thing for the Government to effect the purchase. There has also been, for some few years past, the Eight-hour demonstration. We should not have had that traffic but for this railway. In 1896 we carried 13,000 passengers to Rosehill in connection with that demonstration. Last year the demonstration was not so good, and we carried only 5,000; but in previous years the demonstration has been a big success, and we have carried a large number of persons to it. These are some of the reasons which have led the Commissioners to recommend the purchase of the line.

282. What has been the greatest number which you have carried on the occasion of an Eight-hour demonstration? In 1896, which was a fair year, the number carried was 13,000.

283. Do you know anything of the proposal to construct a tramway from Westmead to Dural? The Commissioners reported against that line some years ago.

284. Another proposal was to take a line from Pennant Hills to Dural? That proposal has not been before the Commissioners.

285. Supposing Bennett's and Simpson's lines were not in existence, do you think that a line from Pennant Hills to Dural would do what is required as well as would the proposed line? I do not think any of them would pay; but Pennant Hills is a good centre because a large quantity of fruit traffic comes in there. Only within the last week the district has been fairly inconvenienced by the opening of a siding at Pennant Hills. Previously they had to send a mile further—to Thornleigh.

286. In the report before us, Mr. Price, an officer of the Department, recommends a system of tramways from Pennant Hills to a point near Ryde;—do you know anything of that proposal? I do not recollect the Commissioners considering it. I do not think it has been before them.

287. *Mr. Lee.*] You say you pay 4½d. per passenger to the owners of the private railway on account of the Rosehill race-course traffic? Yes.

288. What is the rate charged? It varies according to the first or second class; then, again, the passenger rates vary according to whether the ticket-holders are going to the grand stand or to the flat.

289. Is not a rate fixed in the Act? Yes.

290. It is a sum not exceeding 6d. each way, is it not? I think so.

291. What is the rate charged by you from Clyde to Rosehill? We have no local business; the arrangement is this: we book passengers from Sydney to the Rosehill race-course at charges varying from 1s. 6d. Out of the 1s. 6d. we should get 1s. 1½d., and the company would receive 4½d.

292. Can you give us an idea of what the railway earns between Clyde and Rosehill? We earn nothing, because we pay so much out of every fare. The 4½d. which we pay to the company has averaged, according to the Commissioners' report for five years, £543. The amount which we have paid the company has been the earnings of the local railway. The company has received £343, and we received in one year, as I pointed out, £2,300.

293. I presume your Department regulates the whole of the traffic to and from Clyde and Rosehill and down to the works? Yes.

294. What have been the gross receipts? I do not know that I can give you any more particulars than those already given. The local earnings are what we have paid to the Rosehill company.

295. But they would be no criterion of the actual earnings? There is no other way of showing them. We have not taken credit for anything out of the 1s. 6d. We have simply taken the earnings upon the main line, and in one year they amounted to £2,300. I am under the impression that at one time we paid the company only 3d. instead of 4½d. I do not know at what date the change was made.

296. There is no means of obtaining data showing the actual earnings of the short piece of railway to which I refer? There are none further than I have given you.

297. The amount paid to the Bank of New Zealand during the five-year period you have named would be insufficient to pay 2 per cent. upon £25,000;—are you prepared to show that the railway if purchased for £25,000 would earn sufficient to pay interest and working expenses? No.

298. Not even if it were extended to Dural? No.

299. I presume no revenue has been obtained upon the length from Rosehill to Carlingford? No.

300. Supposing it were worked, it would bring in some additional revenue? Yes, at an additional cost for maintenance and supervision.

301. Supposing there were additional revenues from that source with a small revenue from the branch down to the river, do you think that in the aggregate it would give a return large enough after deducting working expenses to pay interest? I do not think that at the present time the line would be a remunerative one.

302. But the Commissioners have recommended the purchase of the line? Yes.

303. In their report it is shown that the return would not be sufficient to pay interest. We should like to know upon what grounds therefore the purchase is recommended? You will find the Commissioners give their reasons in their report, dated May, 1896, and, as I have already pointed out, there is the traffic which is at present brought to the main lines to be considered.

304. As a matter of fact, the Rosehill Race-course, owing to this private railway communication, is a source of revenue to the Department? Yes.

305. I suppose it may be taken with the question that the £25,000 would be below the actual cost of the line? It is reported to the Commissioners—and they have no reason to doubt the *bona-fides* of the statement—that the line cost £110,000, and it is offered to the Government for £25,000.

306. Admitting the £110,000 to be an extravagant estimate, would the £25,000 be an amount less than that at which the line could be actually constructed at the present time? Much less, from what the Commissioners understand.

307. Is there any other use to which the Commissioners could put this branch line? I do not know of anything further; new meat-works are being established in that direction, and we expect to have a fair traffic from them.

308. Could that line be utilised as an additional storage for empties similar to the depôt at Granville? I do not think that point would come into consideration at the present time.

309. Supposing the line fell into the hands of the Commissioners, do you think the traffic from the extension to Carlingford would justify them in working the line up to that point? I think they would give it a trial to see what the receipts were.

310. It is only a short distance from the terminus to the Northern railway? Yes; about 2 miles I believe.

311. Therefore at that point you would have the two lines competing for the same traffic? Yes.
312. There is no doubt that the Great Northern line would to a certain extent be robbed of traffic which it is now taking? Yes.
313. Apart from that, do you think the present terminus would be a *dépôt* for fruitgrowers to the north? No, I do not think so.
314. Why? Because I think they would to a large extent come to Pennant Hills, which is within $1\frac{1}{2}$ mile of Thompson's Corner. It would be nearer to Sydney by the established line *via* Pennant Hills than by the proposed railway. That circumstance would at once deter us from making local charges on the proposed line.
315. Fruit has to be carried at a very low rate? Yes.
316. Would you be able to make special concessions to the fruitgrowers if they used this line as far as Carlingford? No. If you charged a lower rate you would simply divert the traffic from an alternative line.
317. The anticipated fruit traffic, then, would be of little advantage to the Department if carried upon this short extension? There would be no considerable new revenue.
318. Is the Great Northern line congested during the fruit season? I think not; we had no complaints.
319. There would be no reason for the construction of the proposed new line from that point of view? No.
320. The extension from Carlingford would still further rob the Great Northern line? Yes.
321. Since you are of opinion that you could not make the line from Clyde to Carlingford pay under the most advantageous conditions, do you see any possibility of the proposed extension paying, especially seeing that it would be in competition with the Great Northern line? No; the Commissioners report that there would be a heavy loss upon the extension.
322. There has been several references to the Commissioners for extensions into this fruit-growing district? Yes.
323. It would appear that the Commissioners do not favour any extension? Quite so.
324. Has there not been a development in the district, during the last seven or eight years, which would fairly warrant the extension of a light line of railway to it? The Commissioners think not.
325. The investigation into the proposal for a railway from Westmead to Dural was made some eight years ago? Yes.
326. Considerable settlement has taken place since then? Yes.
327. Although it was shown at that time that the revenue would be small, it is reasonable to suppose that it would be considerably larger now? The Commissioners' report is based upon the experience of a few weeks back; their report is up to date, having in view all the extra development to which you refer.
328. Do you now think that if there were railway communication into the heart of this great fruit-growing district considerably more traffic would be induced than exists at the present time? You might get some more, but you would not get enough to make the line pay. No doubt the line would be a great convenience.
329. Would it not induce persons to send more fruit into market than is sent at the present time? The question is, whether there is a market for such an increased supply of fruit.
330. You have no difficulty in carrying that which is now sent? No.
331. The summing-up of the Commissioners' ideas is this—that it is advisable to buy this private line at the price stated, and to open it for traffic as far as Carlingford? Yes.
332. The Commissioners think that that is as far as they can go at the present time? Yes.
333. *Mr. Wright.*] I think you said that the gross receipts from the Rosehill railway were last year £3,000? I took the year 1895 as being a fair year; that would include the traffic over the main line.
334. Do you think you would be justified in taking £3,000 as the average? Yes.
335. That is obtained from a comparatively small expenditure by the Department? Yes.
336. That would be running passenger trains only on holidays and race meeting days, and goods trains when they are asked for? Yes.
337. If the Commissioners took over this railway, I presume they would run two trains a day? Probably.
338. That would largely increase the expenditure? Yes.
339. Do you think there is a probability of the revenue being increased? I do not think so at the present time; there might be some diversion of traffic from the Parramatta River.
340. While the expense would be largely increased, you have considerable doubt as to the earnings being increased? Yes.
341. I suppose, as far as Rosehill itself is concerned, it is quite certain that the earnings would not be increased? I do not think the racecourse traffic would be increased; there has been no increase within the last few years.
342. Have you been over the country between the river and Carlingford? Not for the purpose of inspection; I have driven over it.
343. You are aware there are no orchards there worth speaking of? I do not know the country intimately; I have driven over it.
344. You know that the great fruit-growing district is beyond? I believe that Galston is about the best part of the district for fruit.
345. You do not think there is any probability of remunerative traffic of the existing line? Not on that section considered by itself.
346. Whom did the Commissioners send over the proposed line between Carlingford and Dural? I think Mr. Harper went over it, and that Mr. Usher went through the district in advance of him.
347. The Commissioners largely rely upon Mr. Harper's estimate of traffic in every case? Yes; they themselves went over this particular line.
348. Has anyone inspected the route from Parramatta through Baulkham Hills? I think the Commissioners went over that country some years ago when the Westmead route was under consideration; I do not think they have been over it since.
349. They disapproved of that proposal on the ground that there would be no traffic to justify the outlay? Yes.
350. Have the Commissioners any data as to the probable number of passengers between Parramatta and the Baulkham Hill and Dural districts? Mr. Harper made an estimate, but I do not know upon what he based his figures.

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351. *Mr. Roberts.*] According to the evidence of the Under Secretary for Public Works, the Government requested the Railway Commissioners to meet the agent of the Bank of New Zealand with a view of possibly purchasing the Rosehill line? Yes.
352. Were any figures submitted for the consideration of the Commissioners showing that the line would be a profitable undertaking? The figures were before the Commissioners, as to the amount we had paid the Company in respect of traffic. They had, also, of course the estimated value of the line, and they were acquainted with its general character.
353. Were the figures of such a favourable character that the Commissioners felt justified in recommending the Government to purchase the line? Yes; the Commissioners thought it desirable to purchase it at the cost stated.
354. What percentage of profit was shown upon the figures considered by the Commissioners? I do not think any percentage of profit on the actual section was considered by them.
355. Had the Commissioners a desire to obtain the line; did they think they could work it more profitably than it is now worked:—in other words, had they any difficulty in dealing with the private owners? There was no difficulty as far as the private owners were concerned, and the Commissioners had no particular desire in the matter, but the question was referred to them by the Government, and their opinion was that it was advisable to purchase at the cost stated, which is a small part of the original cost of the line.
356. In round figures it is estimated that it will cost £6,000 per mile to construct a railway from any point to Dural? Yes.
357. Have the Railway Commissioners asked the Engineer-in-Chief whether it would be possible to construct a line at one-half of the proposed cost to serve that fruit-growing district? I do not think it would be possible to do that; the works would be too heavy;—but it is an engineering question.
358. *Mr. Farnell.*] The Commissioners do not feel inclined to recommend an extension of the existing railway, because they are of opinion that it would not be a commercial success? That is their opinion.
359. You have not had an opportunity to gather statistics? The Commissioners have gathered them, and have gone to a great deal of trouble. Mr. Harper will show you the figures upon which the Commissioners' opinion is based.
360. Their estimate is based upon the present condition of things? Quite so.
361. Have they taken into consideration the possibilities of future development in the district? The Commissioners have done so; but they do not think the increased returns are likely to be so immediate as to warrant them in recommending the railway at the present time.
362. What is the limit of your suburban division at the present time? We have a suburban limit of 22 miles, and a further reduced suburban area to Penrith. The direct suburban area would extend in the direction of which you are speaking to Hornsby, the suburban limit being 22 miles. Dural would be about 26 miles from Sydney.
363. The major portion of the proposed line would be within the limit of the suburban area? Yes.
364. Do you think there is a probability of the district becoming a favourite one for suburban residences? I do not think it will become so for many years to come. You can judge that from our experience in regard to (say) Carlingford and Beecroft. Those places possess advantages in the way of trains which do not exist upon the proposed line, yet settlement in that direction is comparatively slow from a railway point of view.
365. You do not think suburban settlement is likely to take place in that direction immediately? Certainly not to an extent to influence the consideration of the railway.
366. Would there be any justification for taking over the section already constructed without extending it to Dural? I think so.
367. *Mr. Hoskins.*] Did you not say in reply to Mr. Lee that the Commissioners did not believe that the present line from Clyde to Carlingford would pay? Yes; I do not think it would pay the cost of construction and working expenses.
368. The Commissioners see no probability of the receipts increasing to such an extent as would enable the line to pay interest? Not in the immediate future.
369. Is it not probable that there would be some settlement in the neighbourhood of Rosehill if the Commissioners took over the line? I do not think there would be much settlement there for other than local purposes; that is for people engaged about the district.
370. Do you not think that the running of a train a day would induce people to settle in that neighbourhood? I do not think there would be any big increase in settlement.
371. Would it not attract people from the neighbourhood of Parramatta? There might be a limited increase, but I should not be sanguine as to there being any big increase of traffic following upon the taking over of the line.
372. Do you know whether, since the branch line has been taken to the river, the Meat Company has patronised it? I think a month or two will elapse before the company is in full working order.
373. Have they indicated to the Commissioners that they intend to use the train? Yes; that they will use the train.
374. They will be employing a large number of men? When they are in full swing.
375. Would not the Kerosene works also furnish loading? They would give a certain amount of traffic.
376. They have 100 men employed? Yes; and most of their coal and shale would be conveyed by rail. I think Mr. Harper's estimate shows that that traffic would help the line to the extent of £150 a year in direct products.
377. *Mr. Humphery.*] Have the Railway Commissioners considered the construction of a tramway to serve the district to the north of Parramatta? I do not think they have considered anything more than the line referred to them from Westmead. They have had under consideration the question of working the Rosehill extension by tram motors, but I do not think they have absolutely decided what they would do.
378. What has been your experience of the Camden tramway for the carriage of produce? Fairly satisfactory.
379. Mr. Deane thought it would not be practicable to have a small system from Parramatta to Dural owing to the sharp curves;—have you given any consideration to that subject? I do not think the Commissioners have considered that matter.
380. You will see from the wall map that one or two proposals must have been considered by the Commissioners or by the Minister; are you familiar with them? The two proposals considered by the Commissioners

Commissioners have been that from Westmead and the one now before you I do not think the Government tramway proposal has been considered by them.

381 On that subject you are not prepared to give the Committee any information? No.

382 You do not know whether the Commissioners are of opinion that either a railway or tramway service would be satisfactory from Parramatta? No, I am pretty certain they have not considered the tramway question

383 *Mr. Trickett*] If this line of railway from Rosehill to Carlingford were not in existence, and were not offered to the Government at apparently a very tempting price, do you think the Government would contemplate the construction of a line to Carlingford? I do not think the Commissioners would recommend it

H
McLachlan.
7 Jan, 1898.

TUESDAY, 11 JANUARY, 1898

Present.—

THOMAS THOMSON EWING, Esq (CHAIRMAN).

The Hon FREDERICK THOMAS HUMPHERY

The Hon JAMES HOSKINS

The Hon. CHARLES JAMES ROBERTS, C M G

The Hon. WILLIAM JOSEPH TRICKETT

The Hon DANIEL O'CONNOR

HENRY CLARKE, Esq

CHARLES ALFRED LEE, Esq

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq

FRANCIS AUGUSTUS WRIGHT, Esq

FRANK FARNELL, Esq

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

Isaac Chapman, Manager, Rosehill Railway, sworn, and further examined —

384 *Mr. Trickett*] You were requested to furnish the Committee with some particulars as to expenditure upon the line of railway from Clyde to Carlingford? Yes. I have prepared, at the Committee's request a statement showing the total expenditure at date for construction, resumption, &c, of the Rosehill Railway from Clyde to the Parramatta River, also showing the traffic returns on the same length of railway I have also a summary of the expenditure to date for construction, resumption, &c, of the Carlingford and Dural Railway from the Parramatta River, first section The following are the particulars of the expenditure —

I. Chapman.
11 Jan, 1898

SUMMARY of Total Expenditure at date for Construction, Resumptions, &c, of Rosehill Railway from Clyde to Parramatta River

	£	s	d
1 Paid contractors	18,407	1	4
2 Paid Hudson Bros (Limited) for supplying and erecting bridges, as per Schedule	2,933	16	2
3 Paid engineering staff, for original surveys, preparing plans, and superintending construction	3,059	3	1
4 Paid Commissioner for Railways—Permanent way materials, erecting signals, interlocking at Clyde Junction, and freight and turntable	6,030	1	10
5 Paid property owners for land resumed for railway purposes, as per Schedule No I	9,902	2	6
6 Paid for crush gates on platform at racecourse	89	18	11
7 Paid for buildings, caretaker's cottage, &c	248	8	7
8 Paid crossing road, Parramatta tram	192	13	0
9 Steam crane appliances for use at wharf	455	0	0
10 Paid for coal stage	46	4	8
11 Paid sundries, as per Schedule II	12,573	0	3
Grand total of cost	£53,937	10	4

I—LAND RESUMPTIONS—CLYDE TO RIVER SECTION

Actual cost of land resumed from various owners for railway purposes

	£	s	d
Brown (cottages)	367	8	0
Watson	95	0	0
Thomas	55	0	0
Greenwood, L	500	0	0
Lewis	73	3	0
Williams	135	0	0
McAuley	396	0	0
McAdam	132	0	0
Milgate	550	0	0
Maxwell	660	0	0
Stone, W	205	0	0
Land Co of A/A —claim	30	0	0
Rorey and Constable	1,162	12	0
Stephen, S. A.	406	5	0
Herford	140	0	0
Card	1,450	0	0
Taylor, J	376	0	0
Colonial Treasurer—land resumed, Parramatta River	10	0	0
Hudson Bros (Limited)	300	0	0
Mrs Hall	145	0	0
Stephen, S A (Derby street)	400	0	0
Australian Kerosene Oil and M Co	827	0	0
Stephen, S A —land adjoining racecourse	939	12	6
Australian Kerosene Oil and M Co	500	0	0
Department of Lands—wharfage	44	15	0
Light	2	7	0
	£9,902	2	6

II.—

I Chapman.
11 Jan., 1898.

II—SUNDRIES—CLYDE TO RIVER SECTION.		£ s d
Law costs		503 8 4
Arbitration fees		13 2 6
General expenses, including fees paid the Treasury for Bennett's Railway Bill		113 4 1
Interest on capital invested in connection with construction of railway from September, 1889, to September, 1894		11,943 5 4
		£12,573 0 3

SUMMARY of Total Expenditure at date for Construction, Resumptions, &c, of Pennant Hills and Dural Railway Extension from Parramatta River—1st Section

	£ s d
1 Paid contractor	23,317 9 8
2 Paid contractor for station buildings	1,352 9 0
3 Paid Gibson Battle & Co, for rails, fish plates, and bolts	3,097 10 8
4 Paid Railway Commissioners for points and crossings, fish plates and bolts, &c	348 19 0
5 Paid engineer staff—original survey, preparing plans, and superintending work	5,852 16 11
6 Paid sundries, as per schedule No I	3,431 1 3
7 Paid property owners, as per schedule No II	5,774 12 11
Grand total of cost	£43,174 19 5

I—SUNDRIES—1ST SECTION, PENNANT HILLS ROAD

Arbitration fees	145 1 6
General Expenses, including fees paid to Treasury introducing Simpson's Railway Bill to Parliament, survey fees of land resumed, and miscellaneous items, valuations, &c	1,986 14 3
Law costs	1,299 5 6
	£3,431 1 3

II—LAND RESUMPTIONS—1ST SECTION, PENNANT HILLS ROAD

Actual cost of land resumed from various owners for railway purposes

M'Canns	170 0 0
Wooster	89 1 0
Subiaco Convent	440 18 9
Harris	825 1 0
Harper (p N Oriental Bank)	630 17 2
Dunn (p A J S Bank, Ltd)	325 0 0
Cox, F C	615 18 0
M'Killop	250 0 0
Green's Estate Trustees	80 0 0
Cox, F C	35 0 0
Hodge	215 15 0
Mills	275 0 0
Hodge	5 0 0
Mobbs	400 0 0
Stephen, S A	75 0 0
Smith, Enoch	200 0 0
Stephen, S A	700 0 0
Mow Yek	100 0 0
Case, J	175 0 0
Harper (to N Oriental Bank in Ltd)	25 0 0
Hudson Bros.	162 2 0
	£5,774 12 11

NOTE—One claim yet to be settled Dr Manning's, on account of the Asylum—claim about £600

Attached to the summary in each case is the schedule asked for by Mr. Farnell, showing the resumptions and the amounts paid to each property-owner through whose property the railway passed. It will be seen that the amount paid on the first section of the Pennant Hills Dural line was £5,774, and in the case of the line from Clyde to the Parramatta River £9,902. There is one claim which has yet to be settled. It is a claim of £600, which we are resisting as exorbitant, in connection with the Rydalmere Asylum.

385 *Mr Farnell*] The whole of the claims were made and settled upon the betterment principle? Yes, I think we went to arbitration in nearly every case.

386 *Mr Trickett*] The amount you have put down for land resumption does not extend, I understand, beyond Carlingford? No, that is the terminus.

387 You have no title to any part of the land beyond there? No.

388 I suppose you have no estimate of what it would cost to acquire the necessary land between Carlingford and Dural? We had an estimate made. I think that roughly it was estimated that the cost would not exceed £50 an acre.

389 What would that total up? It is a question of 9 miles in length by 66 feet in width.

390 And you think £50 per acre would be an average price? Yes, I have no doubt Mr Simpson will be able to give you the necessary information on that point.

391 Have you a title to all the properties you have enumerated, with the exception of that at Rydalmere? Yes.

392 You mentioned some summaries of traffic returns upon the line from Clyde to the Parramatta River? Yes, I have a summary of traffic returns and a summary of maintenance charges. The total receipts from

from December, 1888, to November, 1897, were £5,913, and the total maintenance charges for the same period were £3,846 19s. The maintenance has averaged about £420 per annum. As I explained the other day, the goods traffic has been really nil owing to the difficulty we have had in working under the conditions of the Act. The particulars are as follows:—

SUMMARY of Traffic Returns, Clyde to Parramatta River, Rosehill Railway, from 1st January, 1888, to 30th November, 1897.

	Passengers.	Goods.	Total.
	£ s. d.	£ s. d.	£ s. d.
December 31, 1888	834 19 0	4 14 3	839 13 3
December 31, 1889	602 7 7	14 2 3	616 9 10
December 31, 1890	470 16 0	19 4 0	490 0 0
December 31, 1891	499 13 9	35 16 1	535 9 10
December 31, 1892	611 5 8	40 19 10	652 5 6
December 31, 1893	631 0 2	27 0 3	658 0 5
December 31, 1894	612 6 4	22 14 11	635 1 3
December 31, 1895	536 18 11	59 8 3	596 7 2
March 31, 1897	545 18 3	30 18 8	576 16 11
November 30, 1897	266 5 3	47 4 7	313 9 10
£	5,611 10 11	302 3 1	5,913 14 0

SUMMARY of Maintenance Charges, Clyde to Parramatta River, Rosehill Railway, from 1st January, 1888, to 30th November, 1897.

	£ s. d.
December 31, 1888.—To Maintenance	338 3 8
December 31, 1889. "	499 3 11
December 31, 1890. "	564 10 0
December 31, 1891. "	368 16 1
December 31, 1892. "	385 0 4
December 31, 1893. "	301 14 4
December 31, 1894. "	303 13 7
December 31, 1895. "	324 11 7
March 31, 1897. "	490 16 6
November 30, 1897. "	270 9 3

£3,846 19 3

393. Of course the passenger traffic varies according to the amount of entertainment offered at Rosehill racecourse? Yes.

394. Do you know what interest the returns represent upon the capital outlay for that part of the line? No; but I should think it would be about $\frac{1}{2}$ per cent.

395. In the particulars you have given you have not charged anything for interest on the outlay? No; and, of course, it is only fair to remember, in connection with the question of maintenance, that it has cost us a good deal more to maintain the line than it would cost the Railway Commissioners. We have had to keep on a permanent gang, whereas the Commissioners would have sent in a flying gang once a month, who would have picked up the road and have gone out again. As I pointed out the other day, upon the 2nd-class fare, 1s. 6d. to Rosehill, the Commissioners have received 1s. 1 $\frac{1}{2}$ d., and we have received 4 $\frac{1}{2}$ d.; so that the Commissioners have taken the bulk of the profit out of the Rosehill line, and have paid little or nothing for it.

396. But even if it were otherwise the line would not be a paying concern, having regard to the amount which it cost? Not upon the amount it has cost; but at the price at which it was offered to the Government it would be a bargain. I think railway officers would tell you that they can make a very handsome return on £25,000.

397. The figures you have given us represent what you have got out of the line; but have you any means of letting us know what the line really earned;—you have received only a certain portion of the passenger money, and a certain portion of the goods receipts? Mr. Harper would give you the earnings by the Government, and if you add their total earnings to those which I have given you, you would have the total earnings of the line. The Chief Traffic Manager would show what the cost of maintenance would be. The £3,800 to which I have referred would disappear. The line would be worked in conjunction with the main line, and the cost of maintenance would be very small. I have also prepared an estimate of present traffic on the Rosehill railway and the Carlingford extension. It is as follows:—

ESTIMATE of present Traffic on Rosehill Railway and Pennant Hills Extension:—

ROSEHILL earnings average (say) £650 from (1) Rosehill Race-course traffic; (2) Goods traffic—Australian K. O. and M. Co.; (3) Goods traffic—Sandown Meat Works.

With regard to the latter item, I need hardly add that, as the works are not finished yet, I am not able to gauge the probable earnings; but as the Company has spent over £40,000, and intends developing a very large business in live stock and canned goods, &c., I anticipate receipts will materially enlarge when the Company gets to work. With reference to the expected traffic from Rosehill to Pennant Hills road, Mr. B. C. Simpson, the engineer, made careful estimates of the paying capabilities of the line to Pennant Hills road, with the probable traffic to be expected from the present population along its route. For the latter purposes the gross receipts from the four most similar stations on the Government railways, viz., Parramatta, Granville, Richmond, and Camden, were taken from the Railway Commissioners' last return, and the populations of the districts served by these stations from the census returns of the Government Statistician, and it was found that the average gross railway receipts per head of population was £4 0s. 4d., or say £4. According to the same authority, the population of the district which is served by the line was 2,733, and assuming the same gross revenue per head, the total gross receipts with only the present population would be £10,932.

The gross revenue payable to the Company would be, therefore.....	£3,644 0 0
And of this 25 per cent. must be paid to the Company as <i>pro rata</i> proportion for running over their line.....	911 0 0

Leaving a balance of gross receipts of	2,733 0 0
From which must be deducted for maintenance and station expenses 30 per cent. ...	820 0 0

Leaving a net revenue of	1,913 0 0
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Mr.

I. Chapman.

Mr. B. C. Simpson proposed that the traffic should be run by the Railway Commissioners with their own rolling stock, and thus only a portion of this revenue would be due to the Company.

11 Jan., 1898.

As against this estimate I had occasion recently to consider the matter myself, and gathered the following estimate that might be expected at the present moment:—

60,000 cases of fruit, at average price of 1½d. per case	£375
Parcels, &c.	100
1,000 tons of manure.....	20
Passengers	225
Shunting charges	25
	£745

Necessarily the estimate is limited for the first year until the public had become used to the line and experienced its advantages over the road haulage to Parramatta, and low also, owing to the dry season of last year when the estimate was made. I am confident that with good seasons a revenue of over £1,000 would be secured.

With regard to the estimated cost of the extension from Pennant Hills road to Dural of £60,000: The Rosehill railway and the first section of the extension comprise altogether about 5½ miles of railway, which represents to the Company about £90,000. The 9 miles from the end of the first section to Dural are estimated to cost £60,000. If, therefore, the railway stops at the end of the first section, the heaviest outlay will have been incurred; but it will not tap the district where it will have a monopoly of the traffic, and where consequently the greatest returns may be expected. The orchard districts of Dural and Galston will be untouched.

I am unable to give any detailed estimate of the probable traffic from Pennant Hills road to Dural, but I have every reason to believe, in view of the facts touched upon in the previous paragraph, that I am within the mark of estimating the total earnings at £1,500.

Total earnings	£1,500
Add earnings, 1st section	1,000
Add Rosehill Railway	650
	£3,150

I am of opinion, with fair seasons, that the estimate is a reasonable one, and I am disposed to think that after awhile the railway being in daily use would naturally materially increase settlement in the districts. We have been assured that at a small expense a short siding could be connected at or near the second station on the first section, connecting with a valuable stone quarry from which additional earnings would be forthcoming.

I should explain that there is a large quarry close to the second station. We were asked to connect with it. The stone is represented to be excellent, and it is stated that it would materially assist the revenue.

393. What do you put down as the total estimated earnings of the whole line? From Clyde to Dural, £3,150. Mr. Simpson taking four stations, and considering what the Government earn under such circumstances—and he considers his estimate reasonable—shows a revenue of £10,000.

399. The total revenue of the extension from Carlingford to Dural is estimated by the Commissioners to be £1,025? Yes; but that is not taking account of the Rosehill line, in respect of which they would receive from £2,000 to £3,000 a year.

400. Are you able to say whether the bank would now sell the property for £25,000? Yes; they would.

401. That sale would represent their interest in the whole concern? Yes; and I estimate that there are £25,000 worth of moveable plant. There are £11,000 or £12,000 worth of rails there which are all new.

402. It would be not only the railway extension to Carlingford which the bank would be prepared to give up for £25,000, but also the line of route from Carlingford to Dural? We would give you all our rights—the whole thing, lock, stock, and barrel.

403. As far as you know, have the bank as mortgagees of the property ample power to give a title to it, should the Government purchase it? Yes; I have looked into that matter, and I find that the whole of the properties are registered in my name.

404. There would be no possibility of the original proprietors coming in and preferring a claim? No; they have all conveyed to me, and I should simply transfer to the Department. They have transferred to my name. The bank preferred that my name should be used, as I hold all their Australian property under a letter of trust to them.

405. As far as you know the titles of all the resumed properties are valid and effectual? Yes.

406. Are they also in your name? Yes; the whole of them.

407. You do not know of any contract which would prevent the sale to the Government? No; the only transaction outstanding is the resumption of land at Rydalmere; but that is a Government matter, and it is in course of settlement.

408. Is the permanent way between Rosehill and Carlingford in a good condition? Yes; it is all in first-class condition.

409. How long is it since you have had an engine running over it? No engine has been on the line since the Railway Commissioners were there last, and they were there two or three months ago.

410. You cannot speak as to the present state of the line? I was over it a fortnight ago in a trolley, and it then seemed to be in good order.

411. Is it a steel-rail line? Yes; I think the rails are 74 lb. to the yard. They are very heavy rails.

412. With regard to any lands which have been sold adjoining this railway line, have the owners of it any rights with regard to a railway which would prejudice the sale? None whatever. I should like to make one matter quite clear to the Committee on account of statements which have been made from time to time in Parliament with regard to the Rosehill racecourse. It has nothing whatever to do with the Bank of New Zealand or with this railway. From time to time it has been said that the Rosehill Racecourse and Rosehill Railway were one property; but the railway has nothing to do with the racecourse. The racecourse was sold, and is owned by different people altogether. The railway belongs to the Bank of New Zealand, whereas the racecourse belongs to the Rosehill Racecourse Company (Limited), in which the bank has no interest. The bank owns the platforms within the railway fences.

413. So that the railway can be run entirely irrespective of the Rosehill Racecourse? Yes. There is a platform at the racecourse, but you will notice that the fence goes along the racecourse boundary. Therefore, the platform is the bank's property. The platforms belong to us, and are in our deed.

414. *Mr. Hoskins.*] Have the persons whose land has been acquired been paid for it? Yes; in cash.

Thomas Rhodes Firth, Engineer-in-Chief for Existing Lines, Department of Railways, sworn, and examined:—

415. *Mr. Lee.*] You know the two private lines of railway, known as Bennett's and Simpson's lines, between Clyde and Carlingford? Yes; I was over them nearly twelve months ago. T. R. Firth.
416. I believe you then went over the lines for a special purpose? Yes; I examined the line to report upon it to the Commissioners. 11 Jan., 1898.
417. You furnished the Commissioners with a report, which has been placed before this Committee? Yes.
418. You have since seen it? Yes.
419. Is it correct? I believe it is.
420. Upon one portion of the line—that is, upon the extension from the river to Carlingford—the grades are pretty heavy? Yes.
421. You point out in your report, that those grades are with the traffic? Yes; the traffic on the up journey would be downhill to Sydney.
422. Presuming that freight came from the Carlingford end, it would have an easy grade to run upon? Yes.
423. Did you inspect the whole of the line, including the branch to the Parramatta River? Yes; down to the wharf.
424. Did you find it constructed in accordance with the rules generally laid down in the Railway Department? Yes; it was similar in construction with the ordinary construction under the Government.
425. Were you of opinion that the line was in a state in which it could be used at once for traffic without any large expenditure for renewal? Yes; at that time it could have been used without any further expenditure.
426. Were you satisfied with the system of drainage adopted? Everything seemed quite sufficient to carry off the water, so far as I could judge.
427. Quite sufficient to preserve the line from washaways? Yes; I did not see any signs of flood-marks, or anything likely to cause any floods.
428. What waterways are there, with the exception of the bridge over the Parramatta River? I cannot give you a list of them, but I think there are generally 3-ft. culverts. There are no large watersheds; they are only of small area in each case.
429. The only waterway of note is the Parramatta River? Yes.
430. And over that there is an iron bridge? Yes.
431. What was the condition of that? It was a new bridge in good condition.
432. Was it sufficient to carry the traffic which would pass over it? I think quite sufficient to carry the traffic. I am not sure that it would be sufficient to carry a heavy traffic with heavy engines; but that is not likely to be required upon that line.
433. Was there a single or double line over it? A single line.
434. Was the bridge built for a single line? I cannot recollect; I think the double line only goes to the racecourse.
435. You were satisfied as to the construction of the bridge? Yes.
436. You think it was sufficiently strong to carry the traffic which might pass over it from that part of the country? Yes.
437. Of course it is not the sort of bridge you would put on the main line for heavy traffic? No; I think I should make it stronger.
438. But considering that the line is a branch line for only medium traffic, you think the bridge is ample? Yes; we ran over one of our ordinary engines—not a heavy one—at the time, and the bridge was perfectly satisfactory as far as that was concerned, although I never tested it.
439. Before there was any talk of the sale of these lines to the Government—before, in fact, the railways were completed—was the bridge tested by your Department? Not to my knowledge. I remember that the drawings were sent in to the Construction Branch. It was during Mr. Deane's absence, when I was Acting Engineer-in-chief. I had the calculations of the stresses made in the office; I remember that now. They were satisfactory so far as light engines were concerned, and that was what they were really calculated for.
440. Were the promoters not required under the Act to build a bridge to the satisfaction of the Railway Commissioners? I think not; I think it was to be built to the satisfaction of the Public Works Department.
441. Then, so far as your Department was concerned, no test was made? Not that I am aware of.
442. When you were inspecting the line for the purposes of your report, did you make any test of the bridge? No; I did not. I remember that the calculations of the stresses had been made in Mr. Deane's office before the bridge was constructed, and from that I took it that the bridge would be strong enough to carry the traffic. Supposing the bridge then talked of were decided upon, I assumed that they would make tests to see what it would carry.
443. Providing it were carried out according to the design and specification, it would be sufficient? I have no doubt it would carry all it was designed to carry.
444. If the bridge were carried out according to the design submitted to the Department, there would be no doubt about that? No; but we test all bridges, although we know pretty well what they will carry. We always test them to see that they will carry far beyond the quantity they are supposed to carry.
445. If it became a question of the Railway Department taking over this line, one of the inquiries made would be as to the state of the bridge? Undoubtedly.
446. I observe that in your report you say that the whole of the under and over bridges with the exception of the Parramatta River bridge are of timber;—that would lead one to suppose that there are other bridges? There are over and under bridges in the case of roads. I am not sure that there is not a watercourse some distance up, in connection with which there is a timber bridge. I may say that these bridges were built from the same designs as those in use in the Construction Branch. Mr. Simpson obtained copies of the plans before he commenced work, and I think he pretty well followed them out.
447. You made a close inspection of these over and under head bridges when you were about to report to the Commissioners? I cannot say that I inspected everyone of them.
448. Do you happen to know what state of repair they were in? I know the general design of them, and that was the principal thing I examined. I saw that the work was very well carried out.

- T. R. Firth. 449. Your report on that date was to the effect that the bridges were in good order? Yes.
- 11 Jan., 1898. 450. And that is only twelve months ago? Yes.
451. They may want screwing up? They are almost sure to require that.
452. The woodwork might require painting? Scarcely, in twelve months.
453. You were perfectly satisfied that the bridges were in a good state of preservation? They were, at that time.
454. You would look upon them as having a life of ten years? As regards the bridges themselves, I should give them from twelve to fifteen years without repairs; but they would require a coat of paint in that time.
455. I suppose that as far as the bridge over the Parramatta River is concerned, that might last 100 years if the foundations were properly put in? Yes; it depends entirely upon that.
456. Which Department tests the bridges? The Construction Department always tests them. I think that latterly an officer from the Existing Lines Branch has made the tests, but not in all cases.
457. For some years past there has been an arrangement between the private owners of these lines and the Railway Commissioners as to the running of trains;—could you tell us whether this portion has been under the supervision of the maintenance branch? Yes; the portion from Clyde to Rosehill. Our men have been doing whatever repairs were necessary.
458. At whose expense? At the Commissioners' expense, I think; I cannot say whether any other arrangement was made.
459. Then, so far as that portion of the road is concerned, the private owners have nothing to do with it? I cannot say what the arrangement is between the Commissioners and the private owners. I know nothing about it; but to the best of my belief our men go over the road occasionally to see it is all right, and I presume if any repairs were required they would make them.
460. The Department is in this position: If they made an arrangement to conduct the traffic they would necessarily have the control of maintenance? They must see that the road is kept in order for traffic to go over it.
461. It is not likely that the Commissioners would commit themselves to running traffic over the road unless they were satisfied that the line was in a proper state? Certainly not.
462. Have any trains been run beyond the wharf on one side and Carlingford on the other? None beyond inspection trains, I think.
463. There has been some little traffic upon the Carlingford portion by the private owners? I cannot say. I was only over the line once—when I went through to inspect it. I did not go over it before nor have I been over it since.
464. Has the Department used the line for the conveyance of material or goods? I cannot say. It is possible that they may have used it from the wharf. It has never once come before me in any shape or form.
465. Are you of opinion that the area of land fenced in for railway purposes from Clyde to Carlingford is sufficient for the purposes of this particular railway? I think it is a chain wide—that would be sufficient.
466. If the line were taken over by the Department, do you think it would be necessary to resume any more land in the vicinity of the racecourse platform for the carrying on of the traffic? I do not think so.
467. In other words, if the line were to come into the hands of the Department, the Government would not be involved in a large expenditure for increasing the accommodation;—you think the accommodation provided is enough for all purposes? Yes; but I do not think my opinion upon that point is of any value, because I have never been over the line to see the traffic. I understand the Traffic Department have reported that the siding accommodation is sufficient.
468. You reported upon the length of the platform? Yes; I gave the length of the platforms and sidings.
469. You are aware that at certain seasons of the year a large number of persons frequent Rosehill, and particularly upon Eight-hour Day;—do you think that under conditions of that sort the platform accommodation would be sufficient? I think so. If I remember rightly the platform is 900 feet long by 40 feet wide. It has been up to requirements, I think. I have never heard of any complaint or of any trouble in regard to it.
470. Supposing the platform became the property of the Railway Commissioners, would they have to embark in any very large expenditure to enable them to safely carry on the traffic to and from the racecourse? Most certainly not.
471. If the line came into their hands to-morrow could they conduct the traffic at once without further expenditure? Certainly, so far as the racecourse is concerned.
472. If the place became very largely frequented on occasions such as Eight-hour Day, the question might arise whether it would be wise to provide further platform accommodation? That question might arise.
473. Would there be room upon the land which the Commissioners would receive with the line for the extension of the platform accommodation? I cannot remember what land there was. I know that it was reported that the sidings were pretty well arranged for the traffic, but as to their exact shape or whether there was room to increase them or not I do not know.
474. We want to know whether, if there is going to be an extension of traffic in this direction necessitating extra accommodation, there would be room for its provision? I could not answer that question. The traffic officers would be better able to tell you whether such a thing was probable. I daresay the Commissioners would be very glad for the traffic to increase to such an extent as to necessitate the acquisition by them of additional land.
475. Is the railway of the same capacity as the suburban line? So far as the permanent way is concerned, yes.
476. The rails are of steel and of the same weight as are ordinary rails? Yes; beyond the river. They are iron rails up to the racecourse, but they are quite strong enough. They are 70-lb. rails. We have some of the same kind of rails now on the main Southern line.
477. Were they new when they were put down? I cannot say.
478. The line would be in all respects equal to your suburban line for running purposes? It is of the same character; but it is not equal to the suburban lines.

479. It would be good enough for medium traffic? It approaches the Illawarra line, for instance. No doubt it would be good enough for medium traffic. T. R. Firth.
480. Such as passenger traffic to and from the racecourse? Yes. 11 Jan., 1898.
481. Supposing it were considered desirable to extend traffic beyond Carlingford to Dural on the same basis, would it not be possible to run lighter rolling-stock over the line? Yes; it would be possible to do so, but you would have to have a certain weight of engine according to the traffic. The engines must be strong enough to pull even light goods uphill.
482. Supposing that in the course of a short time the motors and tramcars were displaced from our tram-lines in the city, could they not be made use of as rolling-stock upon such a line as we are speaking of? They could; but I do not think it would be advisable.
483. What would be the objection? They would not pull enough. I do not think they would pull any traffic at all. They are not strong enough; they are not built for it. They do not carry coal and water enough.
484. Therefore, it would not be economical to use them? I do not think so.
485. What about the tramcars themselves? They could be used, but they would have to be run at a slow speed. You could not run them at more than 8 or 10 miles an hour. That would be quite as fast as it would be advisable to run them.
486. Would it be advisable to increase the speed beyond that upon this particular line? I do not know whether it would be advisable or not; but you would very soon hear of it if it were not done.
487. You know of the line between Morpeth and East Maitland, over which tramcars are run? Yes.
488. They are the only passenger cars on that line? I believe they are now.
489. Hauled by what sort of engine? Small tank engines.
490. At what rate of speed are they run? I suppose they would run at about 12 miles an hour.
491. If that rate of speed is sufficient between Morpeth and East Maitland, surely it would be good enough upon this line between Clyde and Carlingford? I daresay it would; but you would have buses from Parramatta competing with you, and beating you.
492. The traffic would come from a different quarter, in which there are no omnibuses? If there are no omnibuses there might be covered waggonettes.
493. It has been represented to the Committee that if light rolling-stock were required, special rolling-stock would have to be specially made for the purpose, but since tramcars are at work upon existing lines we want to know what objection there would be to their use upon a line of this sort? If you took the tramcars away from the city, you would have to replace them with other cars, and I do not see where the advantage would be, therefore, in getting them. You could build light rolling-stock which would suit your purpose.
494. If the speed were only 12 miles an hour, it would not matter very much whether you ran light or heavy cars? It is a question of cost.
495. You would raise no serious objection to the use of such cars as are in use upon the tram lines in the city if they would suit the traffic? No; I do not see any objection to their being used under certain conditions; but I think it likely that if it were advisable to use light rolling-stock, it would be specially made so as to suit the platforms. The tramcars would not suit the platforms.
496. If the line were open for traffic to Carlingford that would probably become a depôt for the fruit traffic, and if it went on to Dural that would still be a depôt for the fruit traffic;—in your opinion, what would be a fair maximum load to allow for the line? I should hardly like to answer that question.
497. You are aware that fruit has to be carried very cheaply in order that any profit may be derived from it—it must be carried in large loads;—what load would this line be capable of carrying? In regard to fruit, you would have to use ordinary rolling-stock, because it would not stand transhipment. You would have to use the ordinary waggon. I daresay a train once a day would bring down all the fruit very well.
498. You think the line would carry any ordinary train-load? Yes.
499. At a low rate of speed? Yes.
500. In carrying goods a short distance it is not necessary to have a high rate of speed? I do not think there would be any trouble in bringing 300 or 400 tons down the line you were speaking of.
501. Therefore, it is sufficiently strong to carry any traffic likely to be taken over it? I have not the slightest doubt of that.
502. *Mr. Roberts.*] Have you been over the various routes shown upon the plan now before the Committee? No; I have not. I was only over the line from Clyde to Carlingford after it was finished. I also went along the main road to Dural.
503. Have you been along the road from Dural to Parramatta? No.
504. Do you know the nature of the country? Yes; it is very undulating country.
505. The whole country there is of an undulating character? Yes.
506. After leaving the river the grades appear to be very steep? Yes, there is a rapid rise all the way; it is undulating and rising as well.
507. I suppose that accounts for what I might term the high estimated cost of the line, about £6,000 a mile? Yes; it is the undulation chiefly that has caused that. The earthworks are heavy.
508. Does it not appear to you that if a good case could be made out for giving to Dural and the surrounding district a better means of getting its produce to market, the question of tramway communication might be worth considering? A tramway would answer the purpose for all the traffic down, but it means transhipment, and that would lead to expense in both money and time.
509. Where would be the best connection if tramway communication were favourably considered? I think the Pennant Hills connection would be about the most suitable; it is pretty well on the top of the range if I am not mistaken. It would keep pretty level high ground all the way along. I think that from Carlingford also you could keep on pretty level ground.
510. A tramway could be advantageously constructed there? I think so.
511. Could not the difficulty of transhipment be got over? That is a problem which has been considered for the last twenty or thirty years, and it has not been perfectly solved yet. There are hundreds of different schemes of transhipment, changes of gauge, and so on, but none have been satisfactory so far.
512. If a tramway were constructed could not the gauge be similar to that on the railways? Yes; but you would not be able to take ordinary trucks on a tramway unless it were made as a railway. You would

- T. R. Firth.
11 Jan., 1898.
- would have to make a railway strong enough, that is, with sufficient sleepers, to carry heavy traffic. When you say a tramway we understand light rolling-stock.
513. Do you tranship in the case of the Campbelltown to Camden tramway? No; that is a railway-railway-cum-tramway. It is more than a tramway. The passenger traffic tranships, but the goods go right through. We have been relaying it with heavy rails to allow that to be done.
514. Do you not regard that line as a tramway from the ordinary point of view? It is called a tramway.
515. What is the difference between the Campbelltown to Camden line and the line you have in your mind, where it would be necessary to tranship? I do not know but that you could make a similar line from Pennant Hills to Dural, or from Carlingford to Dural, as that in existence between Campbelltown and Camden. It would be a question of cost, whether you would have a line at a cheap cost with light sleepers, or a railway with heavier grades and heavier sleepers.
516. What would be the cost per mile, roughly speaking, of a light line such as you are referring to? A light line might cost anything from £2,000 to £3,000.
517. I mean a light tramway similar to that in existence between Campbelltown and Camden? I have never been over the line of country to which you are referring, so that I really cannot say; but from what I know of the lay of the country, the line might be laid from £3,000 to £4,000 a mile.
518. It appears from a document which has been put before us that a line of tramway from Dural to Parramatta is estimated to cost about £2,200 a mile? I do not know what is proposed to be done in that case. I should be sorry to say that a tramway could be taken along any of the roads in the district to which you refer for £2,000 a mile.
519. Is the country in that direction more undulating than between Campbelltown and Camden? I think it is.
520. Do you know what the cost of the line from Campbelltown to Camden was? No; I am not sure whether it was £8,000 or £10,000 a mile. I can furnish the Committee with the exact amount; but I do not think it would be an index to what such a line would cost now.
521. Do you know in what year the Camden line was constructed? No.
522. It was before the advent of our light railways? Yes.
523. Would it not be more heavily ballasted than a line at the present day would be? I do not know that it would be. They only intended to run light rolling-stock over it so that they would not put down much ballast.
524. You are of opinion that the line cost about £8,000 a mile;—what would be the reason for that expenditure? The rates at the time the line was made, for one thing; material was much more expensive, and there are some fairly heavy earthworks on the line.
525. Allowing for all that, we have since built light lines of railway for £2,000 a mile? Yes, with no cutting in 60 miles, besides you can easily put in £1,000 a mile in ballast. If lines were properly ballasted they would cost nearly £2,000 a mile for the ballast alone. Upon the light lines you have been making for £2,000 a mile there is no ballast at all.
526. You think a light line of railway might be put down between Carlingford or the Pennant Hills Station and Dural, for how much? Say, £4,000. I give that estimate without knowing very much about the country.
527. Such a line would be so constructed as to avoid transhipment? Yes.
528. If a line such as we have been contemplating were constructed, could the present tramway rolling-stock be utilised in view of the probable transformation of our steam tramways into electric tramways? Some of the rolling-stock might be used up in that way. Of course if they had to get new rolling-stock for such a line as you are speaking of they would not get that particular kind of stock; they would get stock of a different class for approximately the same money.
529. But the tramcars could be used with advantage upon such a line? They could be used, and I dare say that in the event of the cars not being required for use in the city, and this line being made, they would be so used.
530. Is the gauge of the steam tramways the same as our railway gauge? Yes; exactly the same.
531. *Mr. Hoskins.*] Supposing the Government acquired the line between Clyde and Carlingford, before you sanctioned the working of it for ordinary traffic would you not require to thoroughly inspect it? The Commissioners would not commence to work it until I had reported that it was fit to be worked.
532. You are not prepared to do that now? I should have to go over the line again, of course.
533. Are there not timber culverts and box-drains between Clyde and Carlingford? Yes; there are several box-drains about 3 feet in width.
534. Does not your experience show the timber drains require frequent inspection as well as tarring or painting? Yes; all bridges require screwing up, especially new ones.
535. Does it not frequently occur that you find white ants destructive to wooden culverts? Yes.
536. Therefore, you do not think it would be safe to work the line from Clyde to Carlingford until all the bridges had been thoroughly inspected and put into good condition? Yes; I believe some person is inspecting the line to-day in view of the Committee travelling over it to-morrow.

THURSDAY, 13 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq., (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
 The Hon. JAMES HOSKINS.
 The Hon. CHARLES JAMES ROBERTS, C.M.G.
 The Hon. WILLIAM JOSEPH TRICKETT.
 The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.
 CHARLES ALFRED LEE, Esq.
 THOMAS HENRY HASSALL, Esq.
 GEORGE BLACK, Esq.
 FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and examined:—

537. *Mr. Wright.*] You have prepared a report with regard to the railway now under consideration? J. Harper.
 Yes; it is as follows:—

1st November, 1897. 13 Jan., 1898.

ROSEHILL-DURAL RAILWAY LINE.

As directed by the Commissioners, I have made careful inquiry as to the possibilities of traffic on this proposed line.

As submitted it is, I understand, intended to include the portions already built as well as the proposed extension from the termination of Simpson's line at Carlingford. For the purpose, therefore, of gauging the relative merits of each, it is perhaps desirable to deal with the various component parts of the line separately.

They are as follows:—

- (1) Rosehill Racecourse and Parramatta Park line. Length 2 miles 20 chains.
- (2) Simpson's line to Carlingford, terminating at 17 miles 37 chains from Sydney. Length 3 miles 28 chains.
- (3) To be constructed:—

Carlingford to Dural, 9 miles 6 chains, terminating at 26 miles 43 chains from Sydney. Estimated cost, exclusive of land resumption, £57,000, or £6,292 per mile.

As far as No. 1 portion is concerned, it is possible to estimate the traffic somewhat accurately as the returns which have been kept during the series of years of its administration by the Proprietary Company are available. Quite recently, however, the erection of extensive works for the treatment of beef and mutton by the Stockowners' Meat Company of New South Wales having connection with this line gives promise of increased traffic.

I gather from the secretary, Mr. Fetherstonhaugh, that the intention of the company is to carry on slaughtering of directly consigned stock, as well as that purchased at Flemington, on a large scale. In addition to this, selected portions of the sheep dealt with at the country establishments of the company will be forwarded to Sandown Works for canning purposes. The items of traffic which will be rail-carried to or from the works are:—Live-stock, mutton, sheepskins, coal.

Assuming that the establishment has an average season of work, and that a charge of 6d. per ton, or about 2d. per ton per mile, were made for all dead weight, and 2s. per truck for stock, the revenue from this source would be:—

Skins.....	350 tons	} @ 6d. per ton	£96 5 0
Mutton to Sydney	1,500 „		
Mutton, ex country ...	1,000 „		
Coal	1,000 „		
Stock	500 trucks	@ 2s. each	50 0 0
			£146 5 0

As pointed out by the Commissioners in their minute of May, 1896, the average earnings paid to the owners of the line by the Department on account of passengers carried to Rosehill during the years from 1891 to 1895 amounted to £2,715, or an average of £543 per annum.

The A. K. and O. Co. pay us, in connection with services rendered, £120 per annum. Were the present shunting charge made to this company altered to a through rate of 6d. per ton, the earnings would be about £20 per annum.

The total revenue, therefore, of this portion of the proposal would amount to:—

Rosehill Racecourse	£543
A. K. and O. Co.	120
Stockowners' Co.	146
£809	

It is not possible to so accurately forecast the possible revenue from the extension constructed to Carlingford, owing to the circumstance of river competition, and the proximity of the areas occupied and under cultivation to Parramatta and the North Coast line.

The distances from the terminus at Carlingford are:—

To Sydney, per rail, 17½ miles.	
To Parramatta, per road, 4½ miles.	To Sydney, per rail, 14 miles.
To Eastwood, per road, 2½ miles.	To Sydney, per rail, 13 miles.
To Ermington Wharf, per road, 3 miles.	

Of course, in a district such as this, the producing areas cover a great deal of country, and whilst the above distances are from a central point and the termination of the existing line, a very large percentage of the population and production lies closer to Parramatta, Eastwood, Carlingford, or Ermington Wharf, and those so situated would most probably continue to use these points for trading purposes with the metropolis, more especially, if any rate were imposed on the new line which would compare unfavourably with those existing on the present trade routes.

The total population of the districts of Dundas, Carlingford, Rydalmere, and Ermington—which practically comprise the trafficable area of Simpson's line—is 1,500; and the estimated production of fruit 120,000 cases per annum.

A large proportion of the residents are engaged in fruit-growing, the district not at present being residential for Sydney business people to any extent.

The passenger traffic, which, as may be gathered from the character of the population, is not an extensive one, is carried from the various points indicated, but chiefly by river, the fares by steamer being 9d. single and 1s. return. The railway fares from Eastwood (13 miles) are 1s. 4d., 1st class, and 10d., 2nd class, for the single journey. Even were the ordinary suburban area fares charged from the terminal point of the line to Sydney—say, 18 miles—the single fare would be 1s. 9d. and 1s. 1d. and return fare 2s. 8d. and 1s. 8d., 1st and 2nd class respectively.

It is, I think, apparent that the line would only divert a comparatively small proportion of the passenger traffic at present carried by the more expeditious and cheaper routes. There is, however, no doubt that in time to come, when increasing population demands expansion for residential purposes, this district, with its climate and elevation and soil, will undergo great expansion. At present, however, there would be no warrant, I think, for constructing an expensive line for such small prospects of traffic as are apparent.

As

J. Harper.

Goods Traffic.

3 Jan., 1898 *i.e.*, Sydney, are against the prospects of any great development in this extension. At the present time, of the 120,000 cases of fruit produced 90,000 find their way to Ermington wharf, and are carried by steamer to Sydney at the rate of 2d. per case.

Our rates for fruit within a radius of 54 miles of Sydney are :—

15 to 20 miles	1d. per case.
21 to 25 "	1½d. "
26 to 30 "	1¾d. "

Were ordinary extended rates charged on the line, the rate from Carlingford would be 1d. per case or the same as to Thornleigh (20 miles). In view of other means of carriage, including our own main Northern and Western lines, it is exceedingly doubtful if any local rate could be imposed, and even if it were I do not think it could exceed ½d. per case for a limited quantity of the production.

Mr. Chapman, of the Rosehill and Dural Co., has furnished me with the following estimate prepared by him with a view to running a train service with the Company's rolling stock :—

60,000 cases of fruit at 1½d per case	£375
Parcels, &c.	100
1,000 tons of manure	20
Passengers	225
Shunting charge	25
	£745

That the users of the line would not pay 1½d. per case in addition to the 1d. from Clyde I am confident, especially in view of the fact that the most sanguine of the Dural people only suggest 1d. per case additional as the rate they would be prepared to pay the Commissioners.

The estimate of quantity is also, in my opinion, too sanguine. Most of the fruit growers employ horses on their holdings; then employed labour is relatively cheap, and cartage for several miles extra, which is all that is involved, would be amply compensated for by the difference between the present railway rate of 1d. per case from all North Coast stations except Hornsby in the district and 2½d. per case *via* Rosehill. The difference amounts to 5s. per ton, which is nearly equal to the ordinary rate paid for a man, horse and cart for the whole day.

As far as general goods are concerned, we could not look for a higher rate than the extension of our main line rates in view of the same set of circumstances of competing routes.

For 18 miles our rates are :—

Miscellaneous.	A	B	1	2	3
1/10	2/8	3/6	7/7	8/11	11/4

and these are the Pennant Hills rates also, whilst the all-round rate per steamer is 3s. 6d. per ton. Heavy goods, such as sugar, &c., are delivered by road from Sydney.

There are very few stores in the whole district, the disposition of most of the residents being to purchase personally in Parramatta or Sydney, or from supply carts which canvas the neighbourhood.

We might possibly carry a certain quantity of low-grade traffic, such as manure, timber, &c., but I do not think this would bear more than the through rate.

My estimate of the earnings of this section would be :—

	£	s.	d.
Fruit, 30,000 cases at ½d. each	62	10	0
Manures and other low-class traffic, 1,000 tons at 6d.	25	0	0
Passengers	150	0	0
Sundries	100	0	0
	£337	10	0

No. 3.

Proposed Construction from Carlingford to Dural, 9 miles 6 chains.

It seems to me that very much greater considerations are involved in this proposed expenditure on construction than in the acquisition for a considerably reduced amount of a line which already has an assured traffic.

Although the estimated cost of construction only is given as £57,100, the fact that the proposed line is so located, owing to the broken character of the country as to run practically parallel with the main road of the district, severing approaches to the latter for a distance of nearly 7 miles, must materially increase the capital cost of the line.

The same set of circumstances as have already been referred to in connection with Simpson's extension to Carlingford will more or less operate to render an estimate of the traffic to a certain extent speculative. The only factor which is absent is the alternative river route.

The residents of the district claim that the following settlements are within trafficable area of the proposed line, viz. :—Pennant Hills, Castle Hill, Kenthurst, Galston, Dural, and Kellyville; the united population being about 2,000, almost exclusively engaged in fruit-growing. At present the business is done with Hornsby, Thornleigh, and Parramatta. The following table, giving the distances by rail to Sydney from the principal points on the proposed line as, also, the distance of existing stations, will serve to illustrate the position :—

New line.	By rail.		By road to	Distance.
	Miles.	Miles.		
Dural	27	..	Parramatta	12
Kellyville	23	2½	Pennant Hills	6½
Rogan's	22	½	Parramatta	10
Thompson's	20	..	Pennant Hills	9
Hornsby	21	..	Parramatta	7
Thornleigh	18	..	Pennant Hills	3½
Pennant Hills	18	..	Pennant Hills	1½

During last year the following fruit was forwarded from the districts claimed :—		Cases
Castle Hill and Kellyville to Parramatta		26,000
Galston to Hornsby		33,000
Pennant Hills, Castle Hill, Kenthurst, and Dural to Thornleigh		191,000
Total		250,000

Were the line built there is no doubt a portion of the fruit would be forwarded by it. As already stated, the rate for 20 miles is 1d. per case. The rate from Dural would be 1½d., and from the intermediate points 1¼d.

Assuming that 150,000 cases were carried at 1½d. and 100,000 cases at 1¼d., the increased revenue would be £208 6s.

The residents would say that they are prepared to pay a higher rate than at present. This may be true of those who reside in those portions of the district more distant from the existing line, but for reasons already stated it is very doubtful if the majority would be willing to do so.

Assuming, however, that a certain number of producers were willing to pay 1d. per case more than at present, and that 150,000 cases were so despatched, the revenue from this source would amount to £625.

With

With regard to general merchandise, the same conditions as to source of supply occur as in the Carlingford section of the line, minus river carriage, as do also the remarks as to passengers. J. Harper.

With regard to the latter, an excellent coach service runs to Parramatta connecting with four trains per day, the through fare from Pennant Hills being 1s. In addition to this, most of the residents have their own vehicles, and when business requires them to travel, would most undoubtedly take advantage of the more frequent, cheaper, and better service of the main line over shorter mileage rather than have recourse to such an intermittent and mixed service as the traffic requirements of the branch line would demand. 13 Jan., 1898.

I do not think, taking all circumstances into consideration, that this section of the line would produce more than the following traffic:—

150,000 cases of fruit, at 1d.	£	625
2,000 tons special class goods, at 1s.		100
Sundries		100
Passengers		200
		£1,025

Of course, were this section built, the already-constructed portion would require to be credited with the carriage of the above traffic over its mileage.

	SUMMARY of traffic estimate.		
	£	s.	d.
No. 1—Rosehill line.....	809	0	0
No. 2—Simpson's line to Carlingford	337	10	0
No. 3—Line proposed to be constructed to Dural	1,025	0	0

General Remarks.

The impression I have formed in dealing with this matter is that in view of the assured traffic on the Rosehill portion of the line, and the fact that Simpson's line is necessarily involved in any negotiations for its acquisition, the circumstances warrant its being purchased at such a reasonable amount as will not burden its earnings with too heavy interest on its capital cost.

There is no doubt that in the hands of the Commissioners it can be economically worked, and that it will operate to a certain extent in the development of an excellent district.

With regard to the Dural extension, I am firmly convinced that many years must elapse before such expenditure as that proposed would be warranted in the construction of a railway, and that it is certainly premature to call upon the country to bear the heavy annual loss which must be sustained in interest and working expenses.

Relatively to many other portions of the Colony, the district is well served both by existing lines of railway and road approaches thereto, whilst in no case is the distance to rail communication so great as to impose an impracticable or even serious barrier to the industry of the settler. I, however, quite agree with Mr. Burge, of the Construction Branch, that something might be done to ease the road grades and metal the remainder of the main roads.

538. What is the cost, do you suppose, of obtaining the £800 from the Rosehill section of the railway? I think you would be able to obtain that from the Commissioners' report.

539. Do I understand you to say that the £543 paid by the Railway Commissioners to the Rosehill Racecourse Company is the net amount after deducting the expenses of working the section? That would be the net profit.

540. The amounts of £120 and £146 are on the other hand the gross receipts from which subsequently working expenses will have to be deducted? Yes.

541. In estimating the traffic upon this line—both that on the line already constructed and that on the proposed extension—have you considered the effect which it would have upon the existing traffic on the Main Northern line;—I should like to know what proportion of the total tonnage you estimate would be withdrawn from existing railways and what proportion would be entirely new traffic? In making my estimate I assumed that those who live close to Carlingford would pay the additional $\frac{1}{2}$ d. over the present rate. Out of the traffic coming to the line, some would be withdrawn from boat, and some from those who cart into Sydney at the present time.

542. But the bulk would be traffic upon existing lines? Yes; a great portion of it we are already carrying by rail.

543. Then while obtaining a certain amount of traffic for the new railway, you would be depriving existing lines of a portion of their traffic? Yes.

544. Have you considered that in making your report? I have dealt with the line as it stands. I am assuming that in getting $\frac{1}{2}$ d. a case more we should get no less in quantity than we are getting from Pennant Hills at 1d. a case. I assume that we should get traffic from Carlingford at 1 $\frac{1}{2}$ d. a case. I am crediting the line with $\frac{1}{2}$ d., and am leaving the 1d. out of the question.

545. So that your estimate could not sensibly affect the returns from existing lines? No. The returns from passenger traffic may be affected a little; but you cannot consider a matter of that kind.

546. While you are obtaining a slight increase of traffic, the Department would be saddled with the additional capital cost and the working expenses of the proposed railway? Yes.

547. You think it desirable for the Government to take over the line from Clyde to Carlingford, including the branch to the racecourse? I think it would be desirable. Certain interests have been created there. The Rosehill traffic is an important item as far as that itself is concerned.

548. But that passenger traffic is obtained only at certain periods—on the occasion of race meetings and things of that sort? Yes.

549. It is obtained at a minimum cost, because you run the trains only on particular days? Quite so.

550. Whereas if the line were taken over by the Commissioners one or two trains would have to be run per diem, whether there were traffic or not? There would be a couple of trains per diem at least.

551. That would increase the working expenses? Yes; I think the Commissioners have shown that.

552. Do you think there would be any corresponding increase in the traffic to justify the outlay? I have shown in my estimate that we expect to get from the section beyond Rosehill £300 odd.

553. Taking Rosehill itself, is there any possibility of the passenger traffic being largely augmented if two trains a day are run? No.

554. So that in order to obtain the same passenger traffic which you are receiving now you would have to considerably increase your wear and tear and wages? Yes; I might explain that as far as the Australian Kerosene Company's works and the new meat-works are concerned, their traffic would be made to fit in with the service to Carlingford. The same engines and men would do that work. To-day it has to be done by shunting the engines.

555. What would be the total rate per ton to and from Sydney for the meat-works and the Australian Kerosene Company? Three shillings a ton.

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556. On the top of that, when the products reach Sydney, they have to be shipped, and there will be cartage to be paid? The traffic to Sydney would be meat offered for sale there. The export traffic would be shipped by river; we do not expect to get that. That is not included in my estimate.
557. Is it not possible that the construction of the line may lead to the traffic being bigger than you have estimated? I do not think so. I think I have estimated quite enough.
558. You estimate 2,000 tons of mutton? We shall not get all the mutton from there. All the case stuff would come by river, and also the tallow. The meat we should get would be the selected portion coming down frozen. You may take my estimate as being a very careful one. I have altogether excluded everything which would go by river.
559. This is your second report in regard to this district? No. About two years ago I gave some figures to the Commissioners which I have practically repeated in the present case.
560. Prior to drafting your report of November last, did you go over the district yourself? Yes.
561. You carefully inspected it? Yes; in addition to that I have had one of my most reliable officers engaged for a fortnight in the district collecting information for me.
562. You had three sources of information—the railway returns, the report of your own confidential officer, and the results of your own personal observation? Yes.
563. So that you have no doubt in your mind that your estimate is absolutely correct? None whatever. I have not the least doubt of it.
564. The Commissioners' report is a fairly liberal one? Yes.
565. The Commissioners say that their estimate of the traffic is based upon a liberal scale? It is liberal. The Committee have been put in possession of the report, and they will see in what directions it is so.
566. Do you think the expected revenue from passengers is also a liberal estimate? I do not think people will go all round the world to get such a service as will be given in this instance.
567. In respect of the two sections you anticipate a total revenue of £2,500? Yes.
568. How is the land held—in large or small holdings? Speaking relatively, I should say in comparatively small holdings.
569. Did you inquire whether the holdings were leasehold or freehold? I know that there are no leaseholders from the Crown.
570. Do you understand that the bulk of the fruit-growers are leaseholders or freeholders? I could not speak as to that.
571. Would the difference in tenure affect the returns in any way? Not a bit.
572. What is your impression in regard to the development of the fruit-growing industry in the district? I should say that with an increasing population such as there is about Sydney, and with intelligent cultivation there ought to be a good prospect before the district.
573. Is there plenty of land still available for cultivation? Yes.
574. Is there likely to be any other traffic upon a railway? I think that by and bye the district will be sought after for suburban residences to a greater extent.
575. Are there not considerable areas of timbered land in the neighbourhood of Dural? There were, but nearly all the good timber has gone now.
576. You see no probability of a building timber trade springing up? I certainly do not think there is any probability of it.
577. Fairly good timber is drawn from some portion of the district for railway sleepers is it not? Not that I know of.
578. You saw nothing in the district to lead you to believe that any new industry apart from fruit-growing will eventuate? No; and I think the district is an admirably served district judging from my experience of other districts concerning which I have given information.
579. How would the district be served by a connection with Pennant Hills? It would be served by almost any connection; but the country would not be well served by the expenditure. I do not think the position of any part of the district warrants railway construction.
580. What is the nature of the country about Kellyville? Very good.
581. It is close to Seven Hills? Yes, at the extreme end; you would be getting near to the Windsor and Richmond line. I hope the Committee will understand that I do not denounce the district. I merely speak of it relatively to other districts.
582. Have you been over the country between Westmead and Castle Hill? I am a native of the district, and I therefore know something about it.
583. Would you report favourably upon railway extension in that direction? No.
584. Or from Parramatta? No.
585. What is your opinion of the proposed tramway from Parramatta to Castle Hill along the Windsor road? It would be ornamental, I daresay.
586. Would it serve the district better than the proposed railway? I do not think it would serve portions of the district better.
587. Do you think it would pay? I cannot say as to that; I am not dealing with that matter now.
588. We are informed that there are four omnibuses a day between Castle Hill and Parramatta, and that the passenger traffic is considerable? Probably.
589. You do not think there would be enough to warrant a railway or tramway? No.
590. You do not think that either a railway or tramway beyond Carlingford would be justified? No.
591. I suppose I am right in assuming that were it not for the fact of this line being already constructed, and being offered at a low rate to the Government, you would not favour a railway in that direction? I should not, certainly.
592. You think that the railway being offered to the Government at a cheap rate, it will be advisable for the Commissioners to take it over? My opinion is that, apart from other considerations and assuming that it would not directly pay, it is not a desirable thing to have a private line close to the metropolis in the hands of a company.
593. Would you recommend the construction of a railway from Clyde to Rosehill if this line were not constructed? I should not like to speak on that subject. Of course there are a lot of interests there.
594. Considerable manufactures are springing up at the head of the Parramatta River? Yes; but the object in going there was to get cheap water-carriage.
595. You think the line at the price at which it is offered would probably give working expenses and interest?

- interest? My view is that it would be well for the Crown to acquire it at the price named, or for less if they could get it. J. Harper.
596. Do you think the line will pay at the quoted price? I think there is a fair prospect of it paying. 13 Jan., 1898.
597. *Mr. Roberts.*] You think the purchase would be a wise one at £25,000? Yes.
598. I understand you to say that the annual profit from that portion of the line would be £809? That would be the earning.
599. Does that £809 include all charges whatsoever? The £543 on account of the Rosehill Racecourse would be net gain.
600. Is that after providing for the payment of interest on the capital? No; decidedly not. It will not be absolute profit; it would go towards the payment of interest. It will be 4½d. per passenger more than we get to-day, and out of that return the only expense we should incur would be maintenance of the 2 miles to the Rosehill racecourse. We do not maintain that length to-day. We work the traffic, and out of the amount paid to us we hand over 4½d. to the owners of the line for every passenger carried. If the line were the property of the Crown, administered by the Commissioners, that 4½d. would not be paid. Therefore, £543 per annum would be saved; but out of that sum it would be necessary to maintain the 2 miles of railway—that is to fettle it. Outside of that there would be no more expense incurred in connection with the line than is incurred to-day.
601. You would have to provide the interest on the outlay? Yes.
602. That would come to £750 per annum? Yes; but that would be right through to Carlingford.
603. What would be the net profit on the £25,000 after providing for the maintenance of the line and the payment of interest? That I could not say; probably the Commissioners have informed you.
604. Can you ascertain the amount? I will ascertain if the Commissioners are prepared to give it.
605. You would not recommend the extension of the purchased line from Carlingford to Dural? No.
606. You think the line ought to go no further in a northerly direction? No.
607. Would you recommend a connection from Dural to any point on the Northern line such as Pennant Hills? I do not think the circumstances of the district or of the Colony warrant the expenditure which would be incurred.
608. The undulating nature of the country would make the line an expensive one? It would be an expensive line to construct, and I do not think the people engaged in production in the district are labouring under great disabilities as compared with the districts in the rest of New South Wales.
609. Having been over the district did it not strike you as being the home of what I may term a very prosperous people? Yes; and that to my mind is strong evidence that they are not suffering under great disabilities in their production. They look as if they were doing fairly well without a railway.
610. But with the railway would not things be still more prosperous, and would there not be a larger settlement of population? Probably things would be more prosperous for the people there, but not for the general community who would have to pay for the railway.
611. Having regard to the great expenditure involved? Quite so. There is a doubtful prospect of traffic being picked up owing to the competing points I have mentioned in my report.
612. If the Northern line did not run where it does, the question might be looked at from a different aspect? Decidedly. As a matter of fact the Northern line was designed where it is to serve the interests of that district. It might have been a great deal better in the general interests of the community had the line been carried to some other point.
613. What is the furthest distance of any well-known orchard from a railway station? Sixteen miles would be the extreme limit from a railway station of cultivation in that direction.
614. Throughout New South Wales, when railways are under consideration, any distance within 20 miles is regarded as fairly convenient? Yes; even when heavy bulk has to be shifted in the shape of wheat or wool. One strong point in connection with this line is the severance which would be created. The map before you shows it more or less. As a matter of fact the line means severing the whole of the properties from one end of it to the other, and that would be an important element in the cost. I do not think you can deal with the capital cost of the line without getting at what the resumption would mean. I never knew of a line where that consideration was of more vital importance unless, perhaps, it is the city line. The severance is very great. Along the whole length the line runs parallel with the existing main road, and cuts off the whole of the frontages.
615. Have you been out as far as Galston? Not for four or five years; but I obtained a return of all the present traffic from that point.
616. Leaving Dural, is the country very good? There is very good country about Galston—some of the best in the district.
617. It is as good as the country round about Kellyville? Equally as good.
618. Do the Galston people bring their fruit to Hornsby at the present time? Hornsby is their station.
619. Would the freight be the same from Dural to Sydney by the proposed line as it is from Hornsby to Sydney? It is a 1½d. from Hornsby, and it would be a 1½d. from Dural; but I think persons would pay a half-penny a case more to come from Dural on account of the ascent to Hornsby.
620. Is the road from Galston to Hornsby more level? It is a better road; it is not so rapid in its ascent.
621. Where do the people of Dural send their fruit? Some go to Parramatta and some go to Thornleigh.
622. When once you reach the railway line the rate of carriage is the same from Thornleigh to Sydney as it would be from Parramatta to Sydney? Yes, as I pointed out in my report.
623. You have given an estimate of £120 of traffic from the Australian Kerosene Company's works? Yes.
624. Would it not suit the company to avail themselves of the river traffic? My estimate is for crude oil which would be brought from the mountains.
625. You could make pretty sure of £120? Yes; it is a question whether we should not reduce the existing charges, in which case the estimate would be reduced.
626. You estimate a revenue of £146 per annum from the Sandown Meat Company? Yes.
627. Are not their works on the banks of the river? Yes. What they propose to do is this: Stock will be brought from the country for treatment at the works. In the first place, therefore, stock will be carried there. After that, a certain portion of the slaughtered mutton will be treated by chilling for shipment or for sale in the Sydney market. That will have to be carried by rail. Sheepskins are also carried by rail on account of the more rapid despatch and the saving of sweating. There will also be the carriage of coal to the works from the mines. 628.

- J. Harper.
13 Jan., 1898.
628. From the southern area you pointed out that there would be 130,000 cases of fruit, 90,000 of which go by water;—is not the water freight 2d. a case? Yes.
629. Would it not suit the growers better to take it to the nearest station on the northern line, from which place they could get it conveyed to Sydney for a penny a case instead of paying 2d. for water carriage? They prefer the other means of transit. I suppose they have their reasons for it.
630. If the line from Clyde to Carlingford were acquired by the Government, what portion of the 90,000 cases would it be fair to assume the railway would get? I have credited that section of the line with 30,000 cases.
631. You still think that 60,000 cases would go by water? Or by some other means. Some is carted in. I think that from the immediate vicinity of the terminus of the present line the fruit would go by rail, otherwise it would not.
632. Would the fact of the fruit being landed at King-street instead of Redfern influence the fruit-growers in sending it by water? That might have something to do with it. I fancy, however, that the fruit is landed at Bathurst-street, at the head of Darling Harbour.
633. That would be pretty well to the same point to which it would be conveyed by the Railway Commissioners? Yes; there is a certain amount of co-operation at work in the matter, and of course the return loading has also to be considered.
634. Do you think it would be wise to connect Dural with the Pennant Hills station? Perhaps I speak rather strongly on the subject from my knowledge of the requirements of the country generally, but in view of that knowledge I cannot see that this district requires a railway or a tramway from any point. I think the more pressing needs of other districts in the country should receive consideration before any is given to this district. That is my personal opinion.

FRIDAY, 14 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.	HENRY CLARKE, Esq.
The Hon. JAMES HOSKINS.	CHARLES ALFRED LEE, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	THOMAS HENRY HASSALL, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	GEORGE BLACK, Esq.
The Hon. DANIEL O'CONNOR.	FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

William Thomas Wright, J.P., sworn, and examined:—

- W. T. Wright.
14 Jan., 1898.
635. *Chairman.*] You are resident on the Windsor-road at Baulkham Hills? Yes.
636. *Mr. Roberts.*] How long have you resided in the district? About four years and nine months. I am a native of Victoria, and prior to going to the Windsor-road, I was living for about seven and a half years at Marrickville.
637. How many acres are there in your estate fronting the Windsor-road? One hundred and seventy-five and a half acres.
638. How many acres are under cultivation? I have 58½ acres under citrous and summer fruits. About 7 acres are under hay.
639. It is freehold property? Yes.
640. Had you any experience as an orchardist before acquiring your present holding? Yes. When I came down from the back country I purchased a property at Kellyville. I had a man looking after the place during my residence at Marrickville.
641. Did you devote that property entirely to fruitgrowing? Yes. I had 164½ acres, of which I think 52 acres were cultivated.
642. Did you purchase the property with the view to making money out of fruit-growing? Yes.
643. Did it turn out a profitable investment? Yes; it was a good little property. There were about 25 acres under citrous fruits. It gave me a fair percentage.
644. How long did you hold the property? Somewhere about eight years. I then sold it and made £2,000 odd out of it. I sold it in August 1892. I have heard that it has since been sold again for about one-fourth of the price I obtained for it. I bought the property from Batt, Rodd, and Purves. There was a mortgage on it of £2,500, and at the mortgagees sale I gave £2,450. I bought the place without seeing it. I had a great ambition to become possessed of an orchard property, as I had heard so much about the returns from that class of holding. I determined to buy this particular property if it went at a reasonable price. I eventually sold the property for £4,500 cash. When I got the property I put it under Torrens Act. The property was sold to Mr. Edward Pierce, who has property immediately opposite me at Kellyville. I am told that he sold it for £1,250 or thereabouts, about eighteen months ago.
645. The value of properties in the district has depreciated? Considerably, as compared with their value a few years ago.
646. During the eight years you held this property at Kellyville, did you get a fair return from fruit production? I received about £160 clear of paying the man in charge and his son. It paid me very well. I got from eight per cent. out of fruit growing.
647. I suppose you seldom visited the property? Very seldom. I paid the man so much a year and a commission on sales. We grew citrous fruits with a little summer fruit.
648. Where did you find a market for the fruit? The man and his children used to pick the fruit and I allowed him so much for it. The fruit was brought down to Parramatta by cart or was sometimes taken to Seven Hills. The road to Seven Hills is, however, very rough.
649. Would not the Thornleigh or Pennant Hills station be nearer? No; it would be about 8 miles to the Pennant Hills station and the same distance to Thornleigh.

650.

650. How far would it be from Kellyville to Parramatta? That is also about 8 miles; the road is much better.

651. I understand you have prepared a statement for the Committee? I have statistics which have been collected by various fruit-growers who asked me, if I had an opportunity, to read them to the Committee. The statistics deal with three districts—Baulkham Hills, Castle Hill, and Kellyville. It is estimated that from Baulkham Hills there would be 97,290 cases of fruit per annum. There are 1,093 acres of trees bearing, and a population of 667. From the Castle Hill district it is estimated that there would be 58,000 cases of fruit, and there are 585 acres of trees bearing giving about eighty-five cases to the acre, and there is a population of 386. From Kellyville there would be 64,240 cases of fruit; 1,356 acres of trees are bearing. The trees, as a rule, are younger, and give about forty-five cases to the acre only. The population is 521. The total of population of the three districts is 1,574. The total number of cases of fruit would be 219,530, and taking thirty cases of fruit to the ton, there would be 7,317½ tons. The total acreage of trees bearing is 3,034. I have added to that 300 tons for hay and other produce. In estimating the passenger traffic upon a railway I have assumed that 5 per cent. of the population would travel every day, or about seventy. At 1s. 3d. per head, that would give a revenue of £1,574 1s. 3d., taking account of the three districts—Kellyville, Baulkham Hills, and Castle Hill. I have also put down 1,000 tons of firewood. A great deal of firewood passes my place in Kellyville. The total tonnage would therefore be 12,117 tons. Of manure and other loading required, there would be 3,500 tons, bringing the total up to 15,000 tons. The country is very healthy. It has a fine climate, and I believe that with railway communication it would soon be taken advantage of by people in the city for suburban residences. I think another effect of a railway would be that thousands of acres more fruit trees would be planted. With the small acreage now under cultivation, I do not think there is another part of the Colony of New South Wales supporting so large a population as does the district between Parramatta and Kellyville. If you notice the number of acres cultivated, and compare it with the population, you will see that it gives about 2 acres to each person. If there were a line from Parramatta to Dural I believe that about 14,000 acres would be cultivated, supporting a population of from 20,000 to 50,000. If the Rosehill line were carried on to Dural, in my opinion the people on the northern side would take advantage of the Great Northern Railway. In estimating the value of a traffic on a line from Parramatta to Kellyville, I have taken the carriage of 12,117 tons at 3s. 6d. a ton. That would give £2,120. I add to that amount the passenger traffic, £1,574, giving a total of £3,694. I have no doubt that if there were a railway through those districts a number of persons who have not seen citrus fruits growing would take advantage of the cheap ride out there. In holiday time you might safely assume that about 100 persons would go to the district. That would bring to the line another £1,000. I think you would be safe in putting down the total revenue at about £4,500. I read the other day the evidence given by the Under Secretary for Public Works before this Committee. He pointed out that the line from Carlingford to Dural would only cross the main road from Parramatta to Dural four times. I find that a line crosses that road no less than six times, and, assuming that gate men might be required, that is a great consideration. Mr. Hickson estimates the cost of the proposed continuation of Mr. Simpson's railway at £57,000. He put down the annual cost of the line at £4,501, and the total earnings at £1,025. You have to add that £57,100 to the £25,000 proposed to be paid for the Rosehill line, showing about £82,000 for a total earning of only £1,025. The same witness pointed out that the alternative line from Westmead to Dural, 11 miles 7 chains in length, would cost £50,400, involving an annual cost of £5,164, or £1,000 more than the annual cost of the other line. The traffic is estimated to be £2,500. You would, therefore, have double the earnings for an expenditure of about £40,000 less, according to this witness.

652. Mr. Hickson estimated the cost of the line from Westmead to Dural at £57,000? I am quoting the figures which have appeared in the *Sydney Morning Herald*. So far as the Rosehill line is concerned, I believe that if it were taken over it would be found that there was not sufficient land for shunting purposes, and I have no doubt that as soon as the line was taken over the 90 acres at the racecourse would be cut up and sold if buyers could be obtained. We have a number of racecourses in the Colony, and only one or two of them are, in my opinion, paying expenses. I have no doubt, therefore, that this particular course would be cut up. Instead of starting from Westmead a line might start from Parramatta running along the present railway bank to O'Connell-street, traversing that street and coming out in front of the Gaol, where it would pick up the Windsor-road at Murray's Mills. That would save bridging and the purchasing of land at fabulous prices.

653. You think that route would be an improvement upon the Westmead route? Yes.

654. Do you suggest a railway or a tramway? I think there might be a light line after the style of the line from Campbelltown to Camden. It might be of the same gauge as our railways. Of course, a tramway is not as expeditious a means of transit as is a railway, but perhaps a tramway would be sufficient to convey the traffic of the district for some years to come. The Government say that a mistake was made in the course taken by the line to Newcastle, and I do not see why it should be repeated in this instance. If a railway were constructed from Parramatta towards Dural it might afterwards be continued to Singleton.

655. Although it would be running alongside the Northern line? There would be somewhere about 14 miles between the two lines. The line I have in view might go to Wiseman's Ferry and across the Wollombi Mountains, where there is splendid country which would pay for railway construction. You have not only to consider Dural in this matter, but you must consider all the country round about Wiseman's Ferry. Ultimately the line might be extended to Singleton, thus shortening the distance to Sydney.

656. What is the value of land in the district round about Baulkham Hills? I have heard persons say that if a railway passed through their property they would expect to receive about £25 an acre for it; but as far as I am concerned, if I could obtain railway or tramway communication I should be willing to give up the land required without any consideration. Taking over the Rosehill line, and the extension to Dural, will involve a loss to the country of about £3,000 per annum. I think the people of Baulkham Hills and Castle Hill are quite justified in asking for some improved means of getting their produce to market, irrespective of the proposed Dural line. The route I suggest would pay about 6 per cent. In very many cases it is said that a railway will not pay. For instance, it was said that the Cobar line would not pay. We do not expect many of these lines to pay at the start.

657. You do not favour the purchase of the Rosehill line? I think it would be a great mistake.

658. I suppose you know what it cost? I have heard that it cost £160,000.

659. You know the character of the line? I have been along it; but I have not passed over it in a train.

660. Have you been over the line from Rosehill to Carlingford? No; but I have driven over that country.

W. T.
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661. You think it would be a mistake for the Government to purchase that railway, even for £25,000? I think so, unless the line is used in any way to relieve the Great Northern line. In that case the money might be well laid out.
662. In what way would it advantage the Great Northern line? It might relieve it of some of its heavy traffic in cattle and sheep. It might pay to give £25,000 for the line if it were to be connected with the Great Northern Railway.
663. If the Rosehill line were purchased, would not its present terminus at Carlingford be of advantage to fruit-growers there? I do not think so. Some of them are at no great distance from the boat traffic and others are at no great distance from the Great Northern Railway.
664. What does it cost to get produce from Ermington to Sydney by boat? I think about 10d. a dozen cases—a little less than 1d. a case.
665. What is the railway charge? At Parramatta they charge you 1s. for twelve cases, or 1s. if you have only two or three. Over twelve it is 1d. a case.
666. What is the rate on the Great Northern line? About the same.
667. Is not the boat charge about 2d. a case? I do not think so, but I am not positive. Even if it were 2d. a case it would be cheaper for many persons to convey their fruit to Sydney by that means.
668. Why do persons pay 2d. a case to get their fruit brought to Sydney by boat from Ermington when they can get it brought to Sydney by rail at 1d. a case? Well, in the first place the fruit is not knocked about, and then again it is not kept standing out in the sun for three or four hours, as sometimes happens at Parramatta or Thornleigh.
669. The fruit, when conveyed by boat, is taken to a more convenient place in Sydney? I think it goes to the same market at Darling Harbour.
670. Is there any advantage in back loading? I could not say.
671. Have you sent any of your fruit to Sydney by boat? Never.
672. How many miles is it from Parramatta to Ermington? I think by Brush Farm about 5 miles.
673. It would not pay you to send your fruit to Ermington? No.
674. How far is it from Parramatta to your residence at Roxburgh Hall? About $5\frac{1}{2}$ miles.
675. What time is occupied by your men in getting your fruit to the railway station? It should take about half a day, but as a matter of fact some of the men do not get back until 11 o'clock at night. If we had steam communication I should not object to pay 6d. a case. I am sure the people out my way would be quite satisfied to pay a special rate.
676. You have some knowledge of the back country, and you know the disabilities under which many producers labour in getting their produce to market? Yes. From a district from which it used to take me four months to get my produce down it is now brought down in seventeen hours.
677. When property in most country districts is 20 miles from a railway it is considered to be fairly well served. Persons at that distance can get to the railway station and back on the same day? That is a fair distance where you are dealing with cereals, but at times fruit has to be sent in every day, and then the conditions are somewhat different.
678. In the fruit-growing district to which you have been referring are any orchardists 20 miles from a railway? I think 15 or 17 miles would be the limit of the cultivated land.
679. You yourself are within 5 miles of a railway? Yes.
680. Do you know the Dural and Galston districts? Yes, I know the whole district fairly well.
681. Do you think that district could be served by a connection with the main Northern line at Pennant Hills? Yes, that might be done; it would be $4\frac{1}{2}$ miles from Dural to Pennant Hills.
682. Still you prefer a railway from Dural to Westmead or Parramatta? Yes. It would bring in a big revenue and would pay from the start.
683. Have you any figures showing that the line would pay? I have no information beyond Kellyville. The figures I have given you apply to the districts of Castle Hill, Baulkham Hills, and Kellyville. Supposing the line were constructed to Dural at a cost of £50,000 it would give a return of about $5\frac{1}{2}$ per cent. gross taking the traffic only up to Kellyville. If you take into consideration the Dural and Galston traffic I should think you would have a revenue of between £7,000 and £8,000.
684. You are not allowing for interest on capital and working expenses? No. I suppose that if you took the line on to Dural you would have a net return of £3,000 upon an expenditure of £50,000.
685. Where would you get your £7,000 of traffic? Chiefly on the carriage of fruit at the same rate as is charged from Parramatta.
686. Would not a number of persons within a few miles of Parramatta cart their fruit into that town? I do not think so. They do not care about their fruit being knocked about more than can be helped. Once you get the fruit on the train a lot of handling is saved.
687. But the proposed railway would not go past everyone's door, and do you not think that the growers having once got their fruit on the cart would prefer to cart it into Parramatta;—would it not pay them to do that? I do not think so.
688. What would be a fair charge from Kellyville to Parramatta? From 1d. to $1\frac{1}{2}$ d. a case; I myself would not mind paying 6d.
689. What would you consider a fair charge from Baulkham Hills to Parramatta? About $\frac{1}{2}$ d. a case.
690. Where would you first pick up the fruit traffic from Parramatta, going out? About $2\frac{1}{2}$ miles, I think.
691. Do you think the fruit-growers would cart their fruit there, and pay $\frac{1}{2}$ d. a case by rail to Parramatta rather than cart it direct to Parramatta? I think they would take advantage of the train that would be waiting for their fruit. It would pay them to give the $\frac{1}{2}$ d. extra. They would have the advantage of quicker despatch.
692. Why? Because the fruit is so often delayed at Parramatta. The trucks picking up fruit for Parramatta would be loaded by the time they reached that place, and there would not, therefore, be the same delay.
693. Does not all the fruit from the district to which you are referring come to Parramatta at the present time? Yes.
694. Then why should there be any delay? I do not know why there should be; but, as a matter of fact, there is tremendous delay in the despatch of fruit from Parramatta. They wait, I think, until the trucks are full before despatching them.
695. Do you estimate taking the route you suggest you would catch any fruit which now goes to Ermington? No; that would still go by water. A little from the other side of Castle Hill might go to the Carlingford station on the Great Northern line.

696. Can you vouch for the accuracy of the number of cases you have given from the three districts to which you have referred? Yes. Mr. Tamsett, Mr. Moxham, (the Mayor of Parramatta) and I myself—five or six of us altogether—have had a hand in their collection.

697. Have you compared your figures with those in possession of the railway authorities? No.

698. Is Kellyville one of the best parts of the district? It is one of the finest places in the Colony for fruit-growing.

699. How far is it from Kellyville to Dural? Five or 6 miles.

700. Why do you suppose that the traffic between Kellyville and Dural would be equal to the traffic between Parramatta and Kellyville? I have no figures, but I should think that would be the case. There are some very fine trees at Dural, and they bear more than do the trees at Kellyville.

701. Do you think the people of Dural would pay 1½d. a case into Parramatta? They say so, but I do not think all of them would do so.

702. Your estimate of 220,000 cases between Kellyville and Parramatta would give a revenue of £915 per annum at a penny a case? Yes.

703. Then how do you account for your estimate of £2,120? That is the tonnage rate—3s. 6d. a ton on 12,000 tons.

704. The whole of the 220,000 cases of fruit would not pay a penny a case? No.

705. Therefore, the revenue from fruit upon that section would be even less than £915? Yes. I have perhaps made a mistake in taking the tonnage rate.

706. It would appear then that your suggested line from Parramatta to Dural instead of being a profitable undertaking would involve a loss? It might do so for a time, but a large area of the country which is now unoccupied would be cultivated. There are 500 odd people at Kellyville now as against 30 or 40 a few years ago. That shows that the district is a favourable one for fruit production.

707. Do you think a tramway such as that between Campbelltown and Camden would meet the requirements of the district? Yes. I think it might be carried right through to Wiseman's Ferry.

708. Does the country become more fertile as you go to the north? Yes; the climate is cooler. You are 800 or 900 feet above sea-level in that direction.

709. And you think that the construction of a tramway through that district would lead to a rapid increase in population? Yes.

710. Do you think the present landowners would part with their land at a cost which would enable persons to make a reasonable living out of it? I have only one-third of my land cultivated, and I find that quite enough. I should be quite willing to sell part of my land at a reasonable price. I suppose that, generally speaking, land there would be worth from £20 to £22 per acre. About four or five persons I know of would be willing to give the land required for railway purposes.

711. Through how many properties would the railway you suggest pass? I should think it would go through 200. Before you reached Baukham Hills it would go through quite 100 properties.*

TUESDAY, 18 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

John Charles Hunt, fruit-grower, Dural, sworn, and examined:—

712. *Chairman.*] You are a resident of Dural? Yes; I have resided there for about thirty years.

713. *Mr. Farnell.*] You know the proposal before the Committee? Yes.

714. Have you read the official reports in regard to the proposed railway? Yes.

715. You have a thorough knowledge of the district affected by it? Yes.

716. How are you occupied at Dural? I am fruit-growing there; I have about 140 acres under cultivation.

717. That would be one of the largest areas cultivated there? Yes.

718. Taking your holding as the centre of Dural, what would be the radius of the district? It would be 3 miles east and west, about 3 miles south, and 26 miles to the Hawkesbury on the north.

719. You have collected statistics within that area? Yes; the Dural statistics will apply to that area. I have prepared statistics, however, with regard to the whole of the districts affected. Glenorie has a population of 295; the area of holdings is 4,842½ acres; the area under cultivation, 760 acres; the area of bearing trees, 454 acres; of non-bearing trees, 22,214 acres; and under other tillage, 84 acres. In the Castle Hill district the population is 507; the area of holdings, 4,276; under cultivation, 1,200 acres; the area of bearing trees, 863 acres; of non-bearing trees, 177 acres; and under other tillage, 154 acres. The population of Glenhaven district is 79; the area of holdings, 857 acres; the area under cultivation, 128 acres; the area of bearing trees, 73 acres; the area of non-bearing trees, 49 acres; and under other tillage, 5 acres. The population of the Pennant Hills district is 534; the area of holdings is 3,261 acres; under cultivation, 1,161 acres; the area of bearing trees, 855 acres; of non-bearing trees, 267 acres; and under other tillage, 38 acres. The population of the Galston district is 283; the area of holdings, 2,216 acres; under cultivation, 668 acres; the area of bearing trees, 482 acres; of non-bearing trees, 239 acres; and under other tillage, 26 acres. The population of the Kenthurst district is 323; the area of holdings, 7,584 acres; under cultivation, 750 acres; the area of bearing trees, 427 acres; of non-bearing trees, 266 acres; and under other tillage, 56 acres. The population of the Dural district is 343; the area of holdings, 5,250 acres; under cultivation, 1,018 acres; the area of bearing trees, 603 acres; of non-bearing trees, 279 acres; and under other tillage, 136 acres. The population of the Carlingford district is 685; the area of holdings, 2,070 acres; under cultivation, 1,010 acres; the area of bearing trees, 925 acres; of non-bearing trees, 59 acres; and under other tillage, 26 acres. The population of the Arcadia district is 187; the area

W. T.
Wright.
14 Jan., 1898.

J. C. Hunt.
18 Jan., 1898.

* NOTE (on revision):—I would like to say that after going over the route suggested by me I find that not more than about twenty properties would be interfered with, and then only a few feet of those holdings would be encroached upon.

- J. C. Hunt.
18 Jan., 1898
- of holdings, 2,944 acres; under cultivation, 437 acres; the area of bearing trees, 302 acres; the area of non-bearing trees, 80 acres; and under other tillage, 54 acres.
720. You have no statistics from Kellyville? No, we did not take those statistics, as there appeared to be some objection to it on the part of those we asked, Kellyville would be within 3 miles of the proposed railway, and the residents there would certainly use the line.
721. How far do the boundaries of Carlingford extend for the purposes of the statistics you have collected? I have only taken statistics from the area which will probably come within the influence of the proposed railway.
722. You have not included any products which would go to the Northern line or which would be within the influence of the suggested line from Westmead to Dural? We gave instructions that only a fair average should be taken between the two lines.
723. A great deal of the statistics you have given apply to traffic which is already within the influence of the Northern line? Yes; it is within the influence of that railway at present, but if the proposed line were constructed it would go down to Clyde.
724. What would be the distance between Dural and, say, the centre of Galston? About 3 miles.
725. What is the distance between Hornsby and Galston? From $7\frac{1}{2}$ to 8 miles.
726. So that if the Dural line were constructed to Galston people would save 5 miles in coming to Dural? Yes.
727. Do you think it reasonable to suppose that if the line were extended to Dural the districts of Galston and Arcadia would patronise it instead of sending their produce by road to the line at Hornsby? I have no doubt whatever that the residents of Galston and Arcadia would patronise the new line.
728. What would be the probable traffic from Carlingford? I have put Carlingford and Pennant Hills together. The acreage is 1,739, and reckoning 100 trees to the acre that would give you 173,900 trees; a case to the tree would give the same number of cases, and there would therefore be, at 1d. a case, a revenue of £724 11s. 8d.
729. At the present time what is the charge from Parramatta? 1d.
730. You have allowed 1d. between Pennant Hills and Clyde? Yes.
Glenorie, Kenthurst, Dural, and Arcadia as separate districts, and from them I estimate a traffic of £1,823 6s. 8d. At Glenorie there are 454 acres of bearing trees; at Galston, 402; at Kenthurst, 427; at Dural, 603; and at Arcadia, 302; giving a total of 2,188 acres or 218,800 cases. That, at 2d., gives the revenue I have named.
731. So that the charge would be from Pennant Hills to Sydney 2d. a case? Yes. I have taken
732. Have you not allowed for any increase of rate between Carlingford and Pennant Hills? I have reckoned 1d. a case from Dural to Carlingford, and another 1d. a case from Carlingford and Clyde. The total charge to Sydney would be 3d. a case.
733. You think the people would be prepared to pay that rate? Yes; they are paying 2d. a case to Hornsby. You may put down a load on that road as twenty-five cases. You would require a good horse to take twenty-five cases to the Hornsby station. At 2d. a case that would be only 4s. 2d., and it would take the best part of the day to get the fruit there.
734. It would be better to pay 3d. a case right through, and have the man's labour available for the day? Yes.
735. What is the charge from Hornsby to Sydney for a case? I think it is a fraction over 1d.; we pay 1d. over from Thornleigh.
736. What is the charge from Thornleigh to Dural? About 3d. a case.
737. What is the condition of the road generally between those points? It is a good road in dry weather; it is almost impassable in wet weather.
738. Take the Castle Hill district;—where does the traffic at present go to? The lower end of Castle Hill would go to Parramatta. We have taken in our statistics a little beyond Foster's, leaving about 2 miles in favour of Parramatta.
739. Where do the Galston people send their fruit at the present time? Chiefly to Hornsby.
740. I suppose the Kenthurst people send to Thornleigh? Yes.
741. Has there been any marked increase in the area under cultivation within the last few years? Yes; it has increased considerably. Take the district of Glenorie—twelve or fourteen years ago the population consisted of four families, and there were four holdings. Now there is a population of eighty-four families, or in all 295 persons, and eighty-four holdings. In Kenthurst, fourteen years ago, there were five families, now there are 104, or a population of 323. In Galston and Arcadia, at the same time, there were six families, now there are 112; the population of Galston being 283, and of Arcadia 187.
742. Do you think the want of facilities for getting produce to market has affected the growth of the district? I am sure it has.
743. Is there plenty of land available for settlement? Beyond Glenorie there are some large areas which no doubt would be taken up if there were a railway in the district.
744. You are referring now to Crown lands? Yes.
745. Would those lands be suitable for fruit-production? Yes.
746. There is good timber growing there? Yes; there is forest land for 20 miles, and it is all suitable land for orchards.
747. There would probably be a good trade in timber? Yes.
748. Have you taken that into consideration in drawing up your statistics? We have not been able to estimate the timber trade, but there are thousands of acres of forest containing all kinds of timber.
749. Where is Glenorie? Between Kenthurst and Galston.
750. There is a considerable area of unimproved land which you think would be converted into orchards if railway facilities were given to the district? Yes, the whole of the land was surveyed, but it was reserved from selection.
751. I suppose that in the districts of Dural and Kenthurst there are private subdivisions? Yes; Mr. Black's land is subdivided into orchard blocks, blocks of something like 20 acres.
752. Would the price be reasonable enough to admit of a person engaging in farming pursuits? Yes; some of Mr. Black's land has been bought within the last two or three years, and some of it is being cultivated. There are orchards upon it.
753. It was obtained at a price which would lead to profitable occupation? Yes.
754. What would be the price of land in the district? Unimproved land is worth from £6 to £15 per acre, according to the position.
755. Where is Hudson's land situated? That is at Galston, I think he had 500 acres. It was cut up into farms, and there are orchards upon it now.

756. What do you estimate would be the gross receipts of a railway from the districts of which you have referred? For the carriage of fruit about £3,000.

757. You have put nothing down for timber? No.

758. What have you estimated with regard to the inward traffic? The chief inward traffic would be manures, and I have estimated that for Dural and surrounding districts there would be about 3,000 tons of manure. It would be profitable to every grower to use about half a ton to the acre, and that would give you about 3,000 tons. Every ton of manure from Dural to Thornleigh would cost 8s. at the present time, and to small holders far more.

759. There would be revenue in excess of the receipts Mr. Harper estimated from the railway? Yes.

760. Have you made any estimate in regard to the passenger traffic? No. I can only say that there are three lines of omnibuses running at the present time.

761. Are they run at a profit? Yes. The charge from Dural would be 2s. 6d. a single fare.

762. What would be a fair rate to pay upon a railway? I do not think 3s. return on the section from Clyde to Dural would be too much.

763. Supposing a line were constructed to Dural, do you think any traffic is likely to be created beyond that you have mentioned? In connection with the Dundas district, I think there would be a large passenger traffic.

764. You think new suburban areas would be opened up and settled upon? Yes. I think Dundas will be a considerable suburb in the course of a few years.

765. Do you think it likely that many areas round about Pennant Hills would be used for residences? I can only judge from persons from Sydney coming to live in the district. There are several residences now round about Pennant Hills. People come from the city now to Dural. There is a boarding-house there in which there are boarders all through the year. They appear to come to the district for health's sake.

766. What does it cost you to send your fruit to Sydney, taking into account cartage charges and the railway freight to Thornleigh? About 10s. a ton. I generally use packing-cases, and they would go 40 cases to the ton. Gin-cases, on the other hand, would go about 30 cases to the ton. To a small grower the cost would be about 12s. 6d. a ton, allowing 10s. a day for the horse and cart and 2s. 6d. for the carriage to Sydney. The large grower, by sending 3-ton loads, would do the cartage at a cheaper rate; there would be only one driver for the 3 tons.

767. Is there much fruit grown in your district sent to Sydney *via* Ermington by water? None at all from my district.

768. I suppose the Ermington traffic would be from Carlingford and Rydalmere and places in that vicinity? Yes.

769. What time have you to allow to catch your train at Thornleigh? From three and a half hours to four hours.

770. So that the whole time occupied by the journey from Dural to Sydney would be about five hours? Yes.

771. If a line were constructed to the district there would be a great saving of time in the getting of your fruit to market? Yes.

772. You regard the proposal before the Committee as the most expeditious way of getting increased facilities? Yes.

773. You are not antagonistic to the Westmead-Dural line, but you think this is the most likely way of getting a railway? Yes.

774. You have heard of the proposal to construct a tramway to Dural;—would that answer the purpose? I think the transhipment from the tramway to the railway would be altogether against that proposal.

775. The less handling the better for fruit? Yes.

776. You want facilities which will enable you to run your fruit right through to market? Yes.

777. You think the railway officials have under-estimated the traffic upon the proposed line? I think they have greatly under-estimated it. In regard to the estimate I have given of the cost of conveyance from Dural to Sydney I should point out that I am nearer to the line than are many of the growers in the Dural, Kenthurst, and Glenorie districts, so that it would cost me less than it would cost many others. In some cases it would take the best part of a day or a day and part of a night to deliver the fruit.

778. You do not think that if the roads were improved or metalled it would answer all the requirements of the district? Of course the district would be all the better for having good roads, but we want to save time in getting the fruit to market. At present the greater part of our time is spent on the road, especially in the case of the small growers. They are about half the year on the road.

779. Is there anything you would like to add to your evidence? I desire to point out that the carriage of fruit would be going on all the year round. It is not like the produce from some forms of cultivation. It is not a case where you can wait for the roads to improve or where you can lay your stock by. When the fruit is ready it has to go, and at present it is necessary for the fruit-grower to be upon the road about one-half of his time nearly all the year round. If he spent on his farm or orchard the time that he now spends in travelling he would make the land more productive than it now is. There are many growers with small holdings who work their own land, and you can easily see that their being away from their holdings so much is detrimental to their interests—in other words, to the production of fruit. Although we have not the Kellyville statistics, if the Committee look at the map they will see that Kellyville lies at such a short distance from the proposed line that we are entitled to take into consideration a large proportion of its traffic.

780. *Chairman.*] Supposing the line were not extended beyond Carlingford, would it be easier for a man at Dural to get to Thornleigh than to get to Carlingford? It would be easier to get to Thornleigh.

781. Why? The distance is 3 miles shorter. I understand you refer to Carlingford, the terminus of Simpson's line. I wish to impress upon the Committee the benefit of a railway as a means of communicating for fruit-growers, as compared with a road in the matter of time. A railway would enable the grower to spend upon his holdings time which is now occupied in taking the fruit to market. Then in the matter of damage, although it is not great in the case of citrus fruits, it may be estimated that the damage in the case of summer fruit from road-carriage is fully 3d. a case. If the roads are in a rough state the fruit when it gets to market is hardly fit to be seen. It is of great benefit to the fruit-growers to have their fruit landed in the market at the earliest possible moment. Sometimes if we lose a certain market it means a loss of pounds upon a load of fruit. I can give you an instance of that. Last year something delayed fruit catching a certain steamer, and the loss of the market meant a loss of several pounds in the case of that one shipment.

782. *Mr. Trickett.*] In answer to Mr. Farnell, you estimated the probable fruit revenue to the proposed railway at about £3,000? Yes.

783.

- J. C. Hunt. 783. Have you included in your estimates the fruit which is at present sent from Thornleigh for instance? Yes.
- 18 Jan., 1898. 784. *Mr. Humphery.*] Then from what orchards do you think the new traffic to which you have referred will come? The statistics I shall leave with the Committee will give you the holders names. The traffic at present reaches either the Parramatta or the Northern line. My estimate is based upon an increased charge down as far as the Clyde terminus. The fruit would of course travel upon the existing line from Clyde to Sydney.
785. The traffic at present reaches the railway at one point or another, but your estimate refers to additional earnings? Yes.
786. At what points does the traffic reach the railway at the present time? The Galston and Arcadia traffic would go to Hornsby.
787. Can you give us the number of cases of fruit? No; we have not access to the railway books, but we estimate so many trees to the acre and one case to the tree.
788. *Mr. Trickett.*] I understand you to base your estimate on these grounds; at present the charge is 1d. from Parramatta to Sydney—a distance of 14 miles, and you contemplate a payment of 2d. from Dural to Clyde, a distance of 9 miles? Yes.
789. How long do you think that state of things would last? As long as it would pay us. It costs us 3d. now, and if we can get the work done for 3d., we should be only too glad to pay it. No one but a person who has had experience in fruit-growing can estimate the value of a railway to a fruit-growing district.
790. Is it not a fact that a large proportion of the profit of fruit-growers goes to the agents in Sydney? In some cases it may do so. I certainly do not allow my profit to go to them. I should like to add in regard to damage to fruit in transit on the railway, that the growers load and unload their own fruit, so that if there be any damage it is not the fault of the railway servants at all. The only instances in which we have asked for compensation have been where cases of fruit have been lost from the different stations.
- John William Foster, fruit-grower, Castle Hill, sworn, and examined:—
- J. W. Foster. 791. *Mr. Black.*] You are aware that according to the statements of an eminent traffic authority the proposed railway would not pay for the carriage of the traffic now grown in the district? I have read a report to that effect.
- 18 Jan., 1898. 792. Do you think the construction of the proposed railway would increase the fruit output from the district? I believe it would considerably.
793. Is there much idle land there? Yes; I should think that two-thirds of the land is now idle, unless for grazing purposes. There is also a good deal of forest land.
794. You do not anticipate that there will be any great amount of passenger traffic upon that line at first? I do not think it will be very great at the present time.
795. Possibly you are inclined to think that the railway like other suburban lines will pay when the district is more thickly populated? We have some criterion in what has happened upon the northern line, and you cannot compare the two districts.
796. You think a railway should not follow population, but should go ahead of it? That would be my principle.
797. You do not think the district to which you are referring would be too far from Sydney to become a place of residence for persons engaged in business in the city? No; I do not think so.
798. You think its height and fine climate would take people there? You have an elevation of nearly 1,000 feet in Dural. The hill to which the Committee drove the other day is 800 feet above sea-level, and there are two or three higher points further on.
799. We have been informed that unimproved land can be bought in the district at from £6 to £15 an acre;—what would be a fair average price? £10 or £12 would be a fair average.
800. What would be a good price for orchard land—land already planted? It varies very much. It would average from £25 to £35 per acre. There are orchards you could not buy for £100 an acre. I know of one case where a man obtained a great deal more than £100 an acre from the fruit in one season. Of course, the fruit is very good.
801. One of the reasons why you desire a railway is that quicker communication with market is wanted? Yes. At the present it is almost impossible to travel on the roads in bad weather. You get up to the axle-trees in mud.
802. Is the fruit much damaged by cartage? Some of it is materially damaged. Ripe summer fruit is often totally spoiled.
803. If the proposed railway were constructed, more land would be put under cultivation by orchardists, and there would be an increase of settlement by residents from Sydney? Yes.
804. *Chairman.*] Do you think 2d. a case is the correct statement of the cost of carriage by road from Galston to Hornsby? Yes; I think that would be a fair thing.
805. And from Dural to Thornleigh, 3d.? Yes.
806. Supposing the railway were left at Carlingford, and that a Dural man desired to reach some point upon the railways, would he more readily reach Thornleigh or Carlingford? He would go to Thornleigh. You might almost as well go to Parramatta as go to Carlingford.
807. You heard the statement by Mr. Hunt that a railway would save 3d. a case in damage to the fruit? I think that is an under estimate because if fruit is badly damaged it is not fit for sale.
808. Will you give us an approximate estimate of what it would be worth by case to have a railway adjacent to your orchard? I believe it would be worth 6d. a case.
809. Do you agree with the estimate that orchardists will be prepared to pay 3s. a ton from Clyde to Dural for manure? Yes.
810. Is 8s. a correct estimate of the cost of cartage of manure from Thornleigh to Dural? Yes.
811. You believe the statistics given by the last witness in regard to the cases of fruit from the various districts are correct? Yes.
812. You think that if the proposed line were constructed from Carlingford to Dural the number of cases referred to would pass over it? I believe the whole number specified would travel by it.
813. *Mr. Wright.*] You have estimated a saving of 6d. a case to fruit-growers by the construction of a railway? Yes.
814. Would you pay 6d. a case to the railway authorities for the carriage of your fruit for ten years if a railway were made in the district? I think that would be rather excessive.
815. Supposing 3d. a case were charged where 1d. is now charged would the fruit-growers be satisfied with that charge? I am sure they would. I do not think a local rate would be objected to. 816.

816. The Railway Commissioners say that if they charge you an extra penny it would not pay working expenses, so that you would have to pay more than an extra penny;—do you think the fruit-growers would be willing to do that? I think they would be glad to do so. Anyone who has travelled over our roads would confirm my statement. J. W. Foster.
18 Jan., 1898.

817. *Mr. Hoskins.*] As to the alleged damage to fruit by being carried over the roads, is it not a fact that the consignors are constantly making application for rebate to the Government for damage done to their fruit? The damage is done in a large measure by the way fruit is knocked about by the porters at the various railway stations. The way in which it is handled is shameful.*

Christopher John Moore, fruit-grower, Castle Hill, sworn, and examined:—

818. *Mr. Hoskins.*] You are a resident of Castle Hill? Yes.

819. Are you in favour of the Government purchasing the line from Clyde to Carlingford and extending it to Dural? Yes. C. J. Moore.
18 Jan., 1898.

820. You prefer that mode of supplying the Castle Hill district with railway communication? Yes.

821. You think it would be better than the proposed railway or tramway from Parramatta? Yes.

822. The principle industry in your district is fruit-growing? Yes.

823. That is about the only product sent to Sydney? Very little else is sent away.

824. Is not the fruit-growing industry a declining industry in this Colony? Certainly not.

825. Are not persons constantly complaining that fruit-growing does not pay? Some may do so, but in the district affected by the proposed railway persons are enlarging their holdings and new men are coming in.

826. How far are the stations on existing railways distant from the districts concerning which we have been furnished with statistics? Pennant Hills would be the nearest railway station to Castle Hill and Thornleigh would be the nearest station to Dural. From Castle Hill to Pennant Hills would be about $4\frac{1}{2}$ miles and from Dural it would be about 8 or 10 miles.

827. What would be the average distance from the Dural district to the nearest railway station? It would be something like 10 miles to Thornleigh.

828. Do you consider that distance excessive from a railway in a new country? It is not altogether excessive, but we have such rough roads. In bad weather it is almost impossible to get along them, and the cartage damages the fruit to a great extent.

829. That would be in the winter-time? It generally happens in winter-time and autumn. The roads just now are in very good condition.

830. What are your principal reasons for wishing to have the line extended from Carlingford to Dural? I think it would improve the district and benefit the fruit-growers as a whole.

831. Would it induce many persons to buy land there at £25 per acre? Yes, and it would improve the transit of the fruit. That is the principal consideration.

832. It would not do away with the liability of damage to fruit in transit? To a certain extent the fruit would be damaged; but it would not be so much damaged on a railway as it would be in carts on a bad road.

833. *Mr. Lee.*] You are aware that if the proposed line is carried out to Dural there will, according to the estimate of the Railway Department, be a loss per annum of nearly £3,500? I saw a report to that effect.

834. If the fruit-growers at the present moment cannot afford to pay more than from 1d. to $1\frac{1}{2}$ d. a case for transit from the nearest railway station to Sydney, how will they be able to pay double that amount if the railway is extended over the 9 miles from Carlingford to Dural? There would be a great saving of time, and they have to pay so much wages away to men on the roads. Some of the growers themselves spend half their time on the road.

835. That might apply to the growers of Dural, but would it apply to yourself at Castle Hill? Of course the conditions in my case are not so severe.

836. How far are you from Carlingford railway station on Simpson's line? From 6 to 7 miles.

837. If there were a train on that line every day it would be of little benefit to you? It would be of no benefit whatever running only as far as Carlingford. I am already nearer to a station on the Great Northern line.

838. If the proposed line were made how far would you be away from it? It would pass close by my door.

839. To you personally the line would be of great advantage, but taking the area from where the fruit is to come, would not some of the people have to reside from 3 to $4\frac{1}{2}$ miles from the railway line? Yes.

840. They would be in the same position then that you are in. The question therefore arises whether that when they had to put their fruit into a cart to take it over the 4 miles of road it would not pay them to cart it into Parramatta? That would mean being a whole day on the road, and that means money. The growers would be better employed on their own property improving it. They would have a greater quantity of fruit to put upon the railway in the following season.

841. How is the fruit usually carried? It is carried partly in spring carts and partly in spring lorries.

842. How many cases would they put on to a spring cart? Generally from twenty to thirty. They could put on about a ton. You have to do that at a pinch.

843. Does your fruit suffer much damage in transit from your orchard to the Pennant Hills station? Not as a rule; there is a pretty fair road a greater part of the distance. I do a great deal of the driving myself and I am pretty careful. Upon that distance not much damage could be done; there is some damage of course.

844. Then those who have to cart their fruit 3 or 4 miles to the nearest railway station would still suffer some damage? Yes.

845. So that the question of damage to fruit is one which should receive consideration? Well, of course, some persons have to cart the fruit 14 or 15 miles.

846. There are times when the roads are pretty bad, not only in the winter, but in the summer season? Yes.

847. It would appear that the only possible way of relieving the country of a heavy loss from this line would be to charge an extra rate for the transit of fruit;—do you think the fruit-growers are in a position to pay 3d.? I should think 3d. from about Dural would be a fair thing.

848. Could they pay that price and compete with yourself and others living closer to market, and having less carriage to pay? There would be 3 or 4 miles between us. I can only say that all I have spoken to on the subject have expressed themselves as quite willing to pay the extra charge.

849. The people in your immediate locality would be quite willing to pay an increase upon the present charge? Yes.

850. Can a matter of a penny a case be of such importance to the fruit-growers, if they had the advantage of getting their stuff to market so quickly, and if they saved entirely the dray carriage? It would not be of very great importance.

851.

* NOTE (on revision):—I wish to correct question 817 regarding damage to fruit. It is not done by the porters, but by careless shunting.

- C. J. Moore. 851. How many cases do you send away annually? Something like 2,000.
- 18 Jan., 1898. 852. That would be about 50 tons of fruit Yes.
853. How long does it take you to cart? It takes me half a day to load, to cart to the station, to get my empties, and to get back again.
854. Would it not pay you to pay 3d. a case, and have a railway? I would rather pay 3d. a case and have a railway.
855. You think, then, that the estimate of the railway authorities, showing a loss upon the proposed line, is far too low? Yes; I think so.
856. If the receipts were based upon your estimate, they would pay for working expenses and interest approximately? Yes.
857. *Mr. Humphery.*] Supposing you had to pay for the cartage of your fruit, what would it cost you per ton? About 5s. or 6s.
858. Would it not take you more than half a day to go to the station and return? It would take half a day; but no one would take a ton of fruit over for less than 5s. or 6s.
859. Do you think it probable that the fruit-growers would prefer to pay 9s. a ton by railway to 4s. or 5s. a ton by road? It might not cost 9s. There are times when you are only sending small lots, and then it would pay much better to give 3d. a case by railway than to pay 4s. or 5s. for road cartage.
860. *Mr. Wright.*] You heard Mr. Foster say that the railway knocked the fruit about a great deal;—is it not a fact that the fruit is much more damaged by rough handling on a railway than by rough handling in the local carts? Not in a general way.
861. Is it not a fact that the railway officials pitch the cases about, and that great damage is done to the fruit in that way? In some cases.
862. The carrying of fruit in a spring cart for 10 or 12 miles would not damage it very much? We have to pull the fruit green instead of waiting for it to ripen. If the fruit were ripe a good deal of damage would be done.
863. Under any system of railway extension some of the orchardists would have a certain amount of road carriage to pay? Yes; but to the extent to which you bring the railway nearer to them you give them more time to devote to their holdings.
864. Have you much land? About 40 acres.
865. Are there many large holdings round you? They are fairly large.
866. Do you think the holders would give to the Government, free of charge, such land as might be required for railway construction? I can scarcely say. I rather fancy they would; but I do not know their opinion.
867. The roads in your district are bad at times? Yes.
868. You state that you can carry a ton in a spring cart with a single horse? Yes.
869. But you could not do that upon a bad road? No; it would take two good horses to take a ton even from my place when the roads were bad. The Traffic Manager of our railways has been over this district and knows the produce of the orchards in it. One of his officers has also been through the district. He says emphatically that there would be a loss of £300 a year upon the proposed railway.
870. Do you think he ought to be a better judge of that than you yourself, or your neighbours? He may be a good judge in some ways, but he does not know what we are likely to produce in the district when there is a railway.
871. You think your knowledge of the capabilities of the district is greater than his? Yes.
872. And you think the district is capable of much more fruit production? Yes; there is a good deal of Crown land beyond Glenorie.
873. What proportion of land suitable for fruit-trees is now cultivated? I do not think more than one-fourth.
874. So that if all the suitable land were cultivated there would be an increase of 75 per cent. upon the present produce of the district? Yes.
875. *Mr. Trickett.*] I suppose you work your own orchard as well as use labour? Yes.
876. Can you tell us how much you generally get per case for your fruit? We get all prices—early in the season big prices, and mid-way through we have to take low prices.
877. What would be the average? Summer fruit would average from 4s. to 5s. a case.
878. How much does it cost per case to produce, reckoning packing cases, freight and everything? I do not keep accounts. It would be very difficult to say. You would have to include all family requisites.
879. Do you sell your fruit through a commission agent? Yes.
880. What rate of commission do you pay? 6d. a case.
881. Is that the general charge? It is about that.
882. Does it include anything but commission? It includes market dues and carriage from the railway.
883. Do you know what they come to? No.
884. *Mr. O'Connor.*] How far are you from a railway? My orchard is 4½ miles from Pennant Hills.
885. With regard to the damage alleged to be done to fruit by the railway officials and by railway carriage, do you not think you are largely responsible for the continuance of such a thing since you do not complain? Personally I have not complained much.
886. Do you think that the alleged damage could be avoided by greater care on the part of railway officials? We load our own fruit in the trucks from our vehicles, and any damage done afterwards is done by shunting. I have seen cases thrown half the length of a truck by jolting. I do not think the damage is done by the porters.
887. But do you not think that by greater care on the part of the railway officials, some of the damage could be avoided? Yes.
888. If the proposed line were extended to Dural, would there be much development in the fruit-growing industry there? Yes.
889. You think that in course of time the line would pay working expenses and interest? Yes; if not at present.
890. *Mr. Farnell.*] How long is it since you had to pay 4d. a case for the conveyance of your fruit from Parramatta to Sydney? I could not say.
891. You were satisfied to pay that charge instead of having the inconvenience and loss of time incidental to the carting of fruit by road? Yes.
892. That may be accepted as an indication that the fruit-growers would be glad to pay a local rate of 3d. upon this particular section? Yes.

John Speir Heron, fruit-grower, Castle Hill, sworn, and examined:—

893. *Mr. Humphrey.*] You are a fruit-grower? Yes; at Castle Hill, on the border of Pennant Hills. J. S. Heron.
 894. Do you know the proposal now under consideration? Yes. 18 Jan., 1898.
 895. You know the various proposals which have been considered? I have been resident in the district for only seven or eight years, so that I know little or nothing about some of the former proposals.
 896. What is the extent of your holding? About 50 acres. About 40 acres are under cultivation.
 897. Is the whole of that area under fruit-trees? Yes, excepting perhaps half an acre.
 898. Is the orchard in full bearing? About one-fourth is in full bearing.
 899. Where do you send your fruit? To Pennant Hills and Thornleigh.
 900. At what distance are you from those points? About 3 miles.
 901. Then you are not under any very serious disabilities at the present time? No.
 902. Personally you are not interested in the proposal to the same extent as are many other persons who are obliged to send their fruit a greater distance? Not to the same extent.
 903. Have you seen the statistics presented to the Committee by Mr. Hunt? Yes; I was one of those who collected the statistics for the Pennant Hills district. I can confirm the figures given by Mr. Hunt from my own knowledge.
 904. The Committee may accept those figures as a fair estimate of the probable production of the district, and the earnings of a railway? Yes, as far as my district is concerned.
 905. Do you think the fruit-growers of the district would be prepared to pay 3d. a case, for the conveyance of their fruit? I cannot say that I live at the minimum distance of any witnesses who have been before you from the existing line. The conveyance would be worth from 1½d. to 1d. to me. I should be less than half-a-mile from the nearest station.
 906. But it would be impossible for you to get fruit to the line, without putting it on a cart? Quite so.
 907. Would it be worth your while to pay 1½d. a case additional, with a station half-a-mile away, instead of taking it 2½ or 3 miles away, at present charges? On a large load it would be worth 1d., and on a small load 1½d. Very much depends upon the number of cases one has to cart.
 908. Do you think the estimate of 3d. a case should be modified? I do not think it was made with regard to Pennant Hills or Castle Hill.
 909. Would it be more convenient for you to use the proposed line to Dural, than the proposed railway or tramway from Westmead or Parramatta to Dural? Yes.
 910. Or a line from Pennant Hills to Dural? That would be about the same, as far as I know the route.
 911. It is a matter of indifference to you which route is adopted, as long as it is in the direction of Dural? A Parramatta tramway, or a railway from Westmead, would be of no use to me.
 912. Would the proposal before the Committee be more profitable to you than any of the proposals to which reference has been made? I should think so.
 913. Have you considered what the earnings of some of the other proposed lines would be? I have not gone into those statistics at all.
 914. You think the proposal before us would best serve the whole of the district between Carlingford and Dural? Yes.
 915. You think that no other proposal with which you are acquainted could so effectually serve Galston, Dural, Kellyville, and Castle Hill? I do not think any of the other proposals could serve those districts as effectively.
 916. *Chairman.*] You have heard the evidence of the previous witnesses to-day? Yes.
 917. And you agree with it? Yes, in the main.
 918. Which place can you more readily approach from your residence—the terminus of Simpson's railway at Carlingford, or the Pennant Hills station, on the Northern line? The Pennant Hills station.*

* NOTE (on revision):—With reference to the cost of carting fruit per case, I should like to add the following to my evidence:—My orchard is 3 miles from Thornleigh station. My orchard contains 40 acres, more or less, about 17 acres of which is old orchard, the rest from 1 to 6 years old. It is a mixed orchard, *i.e.*, contains citrus fruit trees and a large variety of summer fruit trees, so that I am sending fruit in moderate quantities to market all the year round. Last year I marketed nearly 1,600 cases—1,560 to be exact—of fruit, in 2,108 packages. This is, I think, above the average for one grower, though many produce considerably more.

My average load would be about fifteen cases, I should think. It takes a quarter of a day to go from here to Thornleigh station with a load of fruit and return. At 10s. per day for man, horse, and cart, this costs 2s. 6d. This is what I have to pay per ton, or load, for cartage from Thornleigh to my property also. I have never got carting done for less; and in the case of bricks have paid 10s. per 1,000 for 7-lb. bricks (equalling 62 cwt. per 1,000), to be delivered from Thornleigh.

The builder of Mrs. Heron's house on land adjoining mine, three years or so ago, when wages were exceptionally low, paid 7s. and 8s. per 1,000 for the carting of 140,000 bricks, I believe, this distance. Owing to the number of carts employed, the men could help each other to load and unload, but the price paid was considered exceptionally low.

I think the price paid by a contractor for the cartage of bricks over any given distance a fair criterion of what such labour is worth.

I, therefore, think I may safely put down 2s. 6d. per load as the lowest rate at which carting can be done over these roads for 3 miles. I think fifteen cases the average load for a moderately extensive grower of summer fruits, or a "mixed" orchard. This brings the average cost of carting a case of fruit 3 miles to 2d. Allowing ½d. per case for loading and carting on the farm—collecting a load from two or three parts of the orchard, perhaps—this leaves 1½d. for carting 3 miles, equal to ¾d. per mile.

Of course, growers of citrus fruit only can always, if they have orchards of any size, make up a load by pulling oranges or lemons. Their average one-horse load would probably be twenty or twenty-five cases, which would lessen the rate somewhat; but from the prices usually charged for carting fruit, I think my figures are not far wrong, even for citrus fruit; and then again, in wet weather the loads must be less in consequence of heavier drawing. The greater the distance the smaller the loads also, per horse. Two horses are often put to draw a one-horse load when the distance runs to 8 or 10 miles.

With regard to the use of stable manure within a short distance of a railway, Mr. H. C. L. Anderson, in his pamphlet on "Orchard Manures," issued by the New South Wales Department of Agriculture in 1890, values stable manure at 4s. to 10s. per ton. The average manure obtainable from Sydney stables may be valued at 6s. per ton on the farm, being mixed with litter, and fresh, therefore containing, as a rule, a large percentage of moisture.

It now costs, on truck at Darling Harbour, not less than 2s. per ton—10s. to 15s. per truck. Trucks do not, I think, hold more than 5 or 6 tons of stable manure.

Freight to Thornleigh is 10s. or 10s. 6d. per truck of, say, 6 tons. This makes 3s. 8d. per ton on truck at Thornleigh. Cost in Sydney, 2s. per ton; freight, 1s. 8d. per ton; total, 3s. 8d., which leaves 2s. 4d. per ton for carting to the orchard, equals cost of carting 2 miles only.

I believe large quantities of stable manure are brought annually to Thornleigh, Carlingford, Ryde, Hornsby, &c., and nearly all is used within a radius of 3 miles of these stations.

WEDNESDAY, 19 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
 The Hon. JAMES HOSKINS.
 The Hon. CHARLES JAMES ROBERTS, C.M.G.
 The Hon. WILLIAM JOSEPH TRICKETT.
 The Hon. DANIEL O'CONNOR.
 HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
 JOHN LIONEL FEGAN, Esq.
 THOMAS HENRY HASSALL, Esq.
 GEORGE BLACK, Esq.
 FRANCIS AUGUSTUS WRIGHT, Esq.
 FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

Luke Gallard, fruit-grower, Kenthurst, sworn, and examined:—

- L. Gallard. 919. *Mr. Trickett.*] How many miles do you reside from Dural? About $4\frac{3}{4}$ miles. I am on the road that runs from Kenthurst to Rouse Hill.*
- 19 Jan., 1898. 920. So that if a railway were constructed to Dural you would have to cart your produce $4\frac{3}{4}$ miles? We expect that there would be a station handier than that for us—about midway between Dural and Castle Hill—perhaps not at present, but in the future.
921. How many miles would that be from Dural terminus? Between 3 and $3\frac{1}{2}$ miles.
922. At the present time where do you take your fruit? To Thornleigh, about 9 miles distant.
923. Could you tell us what it costs you a case to take your fruit there? From our place to Thornleigh it would cost at the present time somewhere about 3d. a case.
924. How many cases would go to the load? I reckon about twenty or twenty-five cases to the load. Some large growers, of course, would cart for less. If they used four horses and a large lorry, of course there would be some saving.
925. What is the area of your holding? About 40 acres.
926. Is it all cultivated? About 10 acres are cultivated. Half of it is under summer fruits, and half under citrus fruits.
927. How long have you been there? About $6\frac{1}{2}$ years.
928. Do you find that fruit-growing pays? I find that the district is better adapted for fruit-growing than it is further this way. I have an orchard at Pennant Hills now; but my orchard at Kenthurst is better adapted to fruit-growing, especially to citrus fruits.
929. Can you make any comparison between your orchard at Pennant Hills and that at Kenthurst, in regard to paying? The better paying one is at Kenthurst.
930. Is that through the soil being better? The soil is of a different nature. It is not a stronger soil, but the fruit does better. You can grow a better quality of fruit than you can at Pennant Hills.
931. We were informed yesterday by Mr. Hunt that the fruit-growers about Dural and Kenthurst would be prepared to pay 2d. per case for the transit of their fruit from those localities to the Clyde Junction;—do you think that is so? Yes. I think they would be quite prepared to pay that. I know I should, and I think that all the other residents in the district are in a similar position.
932. Seeing that you already pay 3d. by road, you will be prepared to pay 2d. by railway? Yes.
933. But, independently of that, there would be the cartage of your produce to the platform you indicate on the Dural line? Yes. I reckon it is worth 3d. to cart it to Thornleigh, and we should certainly be prepared to pay the 2d. on the railway.
934. The cartage would bring the cost up to about the present figure? Yes.
935. What are the advantages of railway carriage for fruit, carrying it over a long distance, as compared with cart or waggon? We would gain greatly by being able to pull our fruit, load it into a truck, and send it down to Sydney in the same day. If we had a railway into the district we should pull our fruit to-day, for instance, and send it down to Sydney to-night. It would be in the market the first thing to-morrow morning for sale. Under present circumstances we have to start pulling this afternoon, for instance, to get a load ready for to-morrow. If I had to get fifty cases ready I should have to start to pull this afternoon. Part of the fruit would be lying in the shed to-night. I should pull the rest to-morrow, and bring it to the station. That would mean that the fruit would have to lie in the truck another night before it reached the market; it would be lying two nights before being put upon the market. If we had railway communication it would have to lie only one night in the case, and it would reach the market in better order than it does at the present time.
936. And I suppose would fetch a better price? It would bring, in many cases, 6d. or 1s. a case more. We have to pull the summer fruit almost green to get it into market in good order.
937. Is not most of the fruit which finds its way to the Sydney market ripened in the case? Yes.
938. That is a disadvantage to the consumer? A great disadvantage, especially as regards apricots, peaches, nectarines, and plums.
939. They are much better to eat if they mature on the tree? Much better. A railway would confer upon us other advantages. There would be a great saving of time. We should have three hours more to pull in the day. We have to start from our place at the present time about 2 o'clock, or half-past at the latest. It is not safe to leave it later. If we had railway communication we should be able to pull till about 4 o'clock, and the evening train would bring the fruit down, just as it does at the present time. We should gain two and a half or three hours; that would be a great consideration. There would be a saving of 5 miles in haulage.
940. Could you name any other advantages which would be conferred by railway communication? Over and above what we should gain in respect of the fruit, there would be the convenience to passengers; that is worth a shilling or two.
941. Have you any figures which would guide the Committee in forming an opinion as to the revenue of the proposed line? I have some figures as to the probable increase of our district, and also some figures showing the probable revenue of the proposed railway at the present time. 942.

* NOTE (on revision):—I would like to add that though I myself live only about 9 miles from Thornleigh, two-thirds of the people of Kenthurst live from 9 to 14 miles from the station.

942. What would be your district? It would be from Glenorie to Castle Hill, leaving out Pennant Hills, which has a good service on the Northern line already. The population in the area I have named I find to be 2,017. I have reckoned two trips per annum per head.

L. Gallard.
19 Jan., 1898.

943. What distance are you taking in to the north and south? From Thompson's Corner I do not go on the right-hand side at all. I go from the store at Castle Hill through Glenorie, Glenhaven, Kenthurst, Dural, Arcadia, and Galston.

944. Coming down to the western side of the Northern line? Yes. I have reckoned two trips per annum for everyone at 2s. return; that amounts to £403 8s. I have taken the Carlingford traffic on the same basis. We cannot reckon it fully, because part of it on the right-hand side of the line would be served by the Northern line pretty well, but the portion we take I have reckoned at two trips per annum, as in the case of Kenthurst and Dural. There are 680 people between Pennant Hills and Clyde, and they would give a total of £529 8s.

945. Have you reckoned the nearer passengers at 2s.? Yes; but then, on the other hand, 2s. would be cheap for Dural. Then there is the revenue from fruit carriage from Glen Haven and all the other districts, amounting to the produce of 2,278 acres; reckoning 100 trees to the acre and one case per tree, you have a total of 227,800 cases, and I have estimated that at 2d. a case, but we are prepared to pay more than that, if required. It is 1d. more than we are now paying at Thornleigh. The total would be £1,898 16s. 8d. I have left Carlingford and Pennant Hills out of that calculation. I am taking one-half from those two districts and Castle Hill, allowing for the other half to go to the other line. That would give a revenue of £732 10s. The revenue from wood carriage, allowing three trucks a day, would amount to £421, at 1s. 6d. per ton, but that is far lower than we should get it at. I am referring now to firewood. Then there will be the back carriage of manure. I reckon a quarter of a ton of manure per acre for all the land under fruit-trees, and the carriage of that will amount to £142 10s. 6d., at 2s. 6d. a ton from Sydney; that is the rate we have to pay to Thornleigh now. We do not get nearly as much manure now as we should get if we had the railway through.

946. The Department allows for 1,000 tons of manure at 6d. a ton upon the extension;—is that enough? I have allowed for 1,141 tons. Then there is horse-feed amounting to £51 2s. 6d. I have put that down at 2s. 6d. a ton for the whole distance from Sydney. The total earnings I estimated to be £3,246 3s. 8d. In respect of the fruit carriage, I am reckoning only 2d. a case, but we should be fully prepared to pay 3d. a case. I think you will find my figures under the actual revenue.

947. Does it not seem strange that, if you are paying only 1d. a case from Thornleigh to Sydney on the Northern line, you would be prepared to pay 3d. a case to Sydney on the new line; do you not think when the new line is opened there will be an agitation to get the rate reduced? I think we should be perfectly satisfied with that rate for some time. Of course as the district improves we may be justified in applying for a reduction, but at present, and for some time, the people will be perfectly satisfied with the rate I have named.

948. Are the difficulties of road carriage between Kenthurst, Kellyville, Dural, and Thornleigh so great that people will be prepared to pay three times the ordinary rate on the Dural line instead of carting their produce to Thornleigh and sending it from that point for 1d.? I think so. We have a rough road taking the short road to Pennant Hills known as the Rocks-road. It is a terribly steep road and is very rough. 949. It is the saving in road carriage that will enable you to pay the increased rate on the railway? Yes.

950. Is the fruit-growing industry in your district an increasing one? Very much so. I have a few figures to show the increase which has taken place in Kenthurst. There are three ridges, and the area of holdings is 7,548 acres. At the present time there are 750 acres under cultivation, 427 acres are bearing trees, and 266 acres of non-bearing trees; of other tillage there are 56½ acres. Sixteen years ago the population of Kenthurst was about twenty, four families being represented. The area under cultivation was about 60 acres, 30 acres of bearing trees, and 30 acres of non-bearing trees. About a year after that, in 1883, we got a school started at Kenthurst with fourteen children, that being all they could muster. At the present time there are sixty-eight children on the roll; Kenthurst was nearly all Crown land, which has been selected. A number of persons came out from Balmain and Sydney, and settled down there on conditional purchases, and started to improve their selections, with the result that there are now 750 acres cultivated, and a population of 323. On the road upon which I live another small school has been started during the last two years, and it has an average attendance of sixteen. During the last five years there has been an increase of twenty children in the school, at which the attendance is now sixty-eight.

951. You grow both classes of fruit in your orchard? Yes.

952. Which is the better class to grow, summer fruit or citrus fruit? Citrus fruit is the best for our district. It seems to grow there of a better quality, and it hangs longer on the trees than it does in the black soil of Pennant Hills and Carlingford.

953. Has the production of citrus fruits in this district increased or diminished of late years? It has diminished of late years. The trees do not seem with any amount of care to do now as well as they did some years back, when they had but very little care at all. At the place I have at Pennant Hills we had as fine a bed of orange-trees as there is in the country. Now they are dying out and we cannot save them. The young trees do not do nearly as well.

954. Is not the reason known? Some property seems to be wanting now in the soil, or there is something in the climate which will not allow them to do as well as they did some years back. Settlement may have had something to do with it; the country is more open now.

955. The Agricultural Department has not been able to solve the difficulty? No.

956. As a matter of fact, we used to export large quantities of citrus fruit, whereas we are now importing it? We still export a lot of citrus fruit.

957. Are not any of the trees destroyed by a well-known disease—red scale? That finds its way everywhere, no matter where you go. It does not trouble us as much out there as it does in other places. You do not find it in the bush as much as you do close to the river, and in more open parts.

958. How do you send your fruit to market now? I cart it to Kenthurst and Thornleigh station.

959. What is the carriage from Pennant Hills to Thornleigh? It would be about 3½ miles from my place in Pennant Hills to Thornleigh. It would not cost us from there more than 1d. to 1½d. We can go two trips a day easily.

- L. Gallard. 960. From your place to Kenthurst it means a day's journey? Yes; if you get away you cannot get back to do anything. If you send a man to Thornleigh you can get very little more out of him that day.
- 19 Jan., 1898. 961. We were informed yesterday that the commission in Sydney on the sale of fruit is 6d.—is that true? Yes; I pay 7d. a case, including railway carriage, cartage at Sydney, and market dues.
962. Many persons seem to think that the fruit industry is not at all remunerative;—do you consider that it is of a sufficiently remunerative or permanent character to justify you in saying that this special charge from Dural to Clyde would be one which would not absorb your profit to any extent? I think so. I do not think we should be the losers; we should be no worse off than we are now; in fact, if anything, we should be a little better off.
963. You would be none the worse off, pecuniarily, and there would be the advantage to you of having quick transit to market? Yes.
964. *Mr. Lee.*] You think there is room for a large increase in the production of fruit? Yes.
965. I presume there is room for at least four times as much as is now produced? Yes; I think that in Kenthurst four times as much could be produced, because there is a large area not cultivated.
966. But if the extra quantity were produced, would there be a market for it? I think so. We are labouring under difficulties at the present time through the want of organisation. We are just about starting a co-operative society, which will make fruit-growing more remunerative than it has been in the past. When the system is in full swing we shall grow fruit to greater advantage.
967. Have you any difficulty in finding a sale for what you do produce? There are certain classes of fruit in regard to which we have a difficulty sometimes. We have not any means of disposing of or utilising surplus fruit of poor quality.
968. There must always be a certain quantity of poor quality fruit? Yes.
969. If a larger area of land is to be brought under fruit-trees, will not the successful operation of the fruit-growers depend largely upon the demand for fruit? We estimate that the demand for fruit will increase with the production.
970. You think the increased demand will necessitate the quadrupling of your produce? We think so.
971. *Mr. Wright.*] You pay 3d. to get your fruit taken into Sydney? Yes.
972. Would you continue to pay that 3d. upon the new line if the people of Pennant Hills were paying only 1d., as they are doing now? I take it that the line would be constructed upon the basis of a double rate or something of that kind. We should be quite satisfied with that. We would rather have that than take our fruit to Pennant Hills.
973. You think that the bulk of the fruit-growers would submit to the extra charge? Yes; a meeting of fruit-growers agreed to pay it.
974. You do not think there would be an agitation for a reduction of the rate three months after the line had been opened? No.
975. There are some 7,000 acres of conditionally-purchased land in your district, of which 750 acres have been cultivated? Yes.
976. How much more land there is suitable for orchard purposes? Quite four times as much as is now under orchard.
977. Suppose there were grown in the neighbourhood of Sydney four times the quantity that is now grown, would there be a local market for it? Not under the present system of disposing of it.
978. You are calculating upon an increase of population causing increased consumption? Yes.
979. Have you any system of canning or preserving surplus fruit, in operation? We tried to form a large company some time ago, but we did not succeed. The co-operative system is now a going concern.
980. You think that if the growth of fruit overtakes the demand there will be no difficulty in disposing of the surplus by canning or preserving? Or it might be exported. Working individually, we cannot export satisfactorily. Working as a body, we can export satisfactorily.
981. You think then there is a reasonable prospect of a co-operative society coming into existence? It is a going concern now, only it is confined to certain lines.
982. You see no prospect of a fall in the demand for all the fruit which can be grown in your district? Not if the sale is worked well under a system of co-operation.
983. *Mr. Hoskins.*] Under the system of co-operation to which you refer would you have sufficient money to carry out your proposal? Yes; I do not think there will be any trouble once persons see the benefit of co-operation. I think the system will widen out, and will take in canning and preserving and the utilisation of all surplus produce.
984. Is there not some difficulty in getting in the necessary money? I think the work under co-operation would be easier done than through a joint stock company.

Samuel Fagan, fruit-grower, Dural, sworn, and examined :—

- S. Fagan. 985. *Mr. Clarke.*] In what part of the district affected by the proposed railway do you reside? In Dural, almost on the boundary, between Galston and Dural.
- 19 Jan., 1898. 986. What area of land have you under fruit? I and my brother are working together. We have about 160 or 170 acres.
987. The present rate of carriage from Parramatta to Sydney is 1d. a case? Yes.
988. It is said that the fruit-growers in your direction, if the railway were extended to Dural, would be willing to pay 2d. extra, making in all 3d. to Sydney;—would you pay that amount? I would, and I think it would be a great advantage to us to do so. At the present time there is a great deal of inconvenience and expense attaching to the getting away of the fruit when we have been unable to cart our own, and have had to put on extra horses and drays, and it has cost us 8s. and 9s. a ton. One great advantage of a railway would be that we should be able to pull the fruit so much later in the day and have it on the market much fresher and in much better condition.
989. It would bring a better price? I am quite sure it would. At present we have to pick much of the fruit before it is fully grown, to ensure it getting to market in good condition.
990. If the proposed line is constructed, would the people of Castle Hill and to the north continue to send to Parramatta? I do not think so. None of us like travelling when we can get served in a more handy way. No one would travel the longer distance for the sake of saving a penny.
991. You would still have to cart your fruit to the railway? Certainly. 992.

992. But there would be a considerable saving in the cost of cartage? There would be a wonderful saving. Carting 4 or 5 miles is much better than carting 10 and 11 miles.
993. The roads are in pretty good order now? Yes; but if you were on them in the wet weather you would be surprised. It is nearly impossible to get along in wet weather. It then takes two horses to do decently what one horse will do in dry weather. Where the road is metalled it is very good.
994. I suppose your present market is confined to Sydney? We ship a great deal of fruit to New Zealand through Sydney.
995. Do you ship any to Great Britain? We have not done so of late years. Some ten or twelve years ago we tried a shipment which proved fairly satisfactory. But at that time the cost was very heavy. It almost consumed what the fruit realised.
996. You know that large quantities of fruit are shipped from Tasmania to the Old Country? Yes. Some fruit was shipped from our district last season which gave a very satisfactory return. Mr. Hunt shipped 53 cases, and they returned him half a sovereign a case clear profit. The fruit was shipped privately.
997. You have no reason to doubt that if a proper system were in existence it would be possible to ship fruit from here as profitably as it is shipped from Tasmania? There is no doubt about there being a market if the matter is taken up and handled properly. Our district is almost the best in the Colony for growing citrus fruit. If the thing were set going properly there would be a great future for our district in the shipment of citrus fruits for the Home market.
998. Have you any fruit-preserving industries in the district? No.
999. According to the last witness you intend to start a co-operative society? I believe that in the near future we shall have establishments started upon the co-operative principle. A great many of us are willing to go into the matter.
1000. There are several fruit-preserving establishments in the neighbourhood of Sydney? Yes.
1001. Are they large buyers of fruit from your district? Yes. Some of the jam factories buy very largely.
1002. Are the jams equal to the imported jams? That is a question I could not answer. We use our own jams. I heard that one of the factories turned over between £35,000 and £36,000 a year. That speaks well for it.
1003. Is there not likely to be an increasing demand for fruit for jam? Yes, and there is no doubt about the probable increase of fruit from the district. The greatest increase will be in the citrus fruits, which will be a great success. It would be a splendid thing if we had the Home markets opened to us.
1004. The last witness stated that at Pennant Hills he had an orchard which two years ago was successful and which is now not successful;—can you give any reason for it? I think that the reason is to a great extent that the country is more opened up. The wind plays upon the citrus fruits with bad results. On some of the hills they catch the wind very severely. That has a great deal to do with it.
1005. I suppose you know that as a general rule when country is opened up in regard to other kinds of crops better results are obtained than when the crops are surrounded by bush? In many cases no doubt that is so, but it seems to me that the hills in our district are much better suited for building sites than for fruit-growing.
1006. Is there any large area under cultivation for wheat or oats? No, there is not much farming out our way. It is nearly all fruit-growing.
1007. Mr. Wright expressed the opinion that a great deal of land would be put under cultivation for the production of other things than fruit? I do not know what crops he could be referring to. There is certainly no good prospect for farming in the district.
1008. You think that if the line were extended to Dural the people of the district generally would support it? Yes, I have every reason to believe they would. The whole district would be benefited.
1009. *Chairman.*] You have heard the evidence of previous witnesses? Yes.
1010. You agree with it in the main? Yes; but there is one matter which I should like to mention. It is in regard to the carriage of manure. I think Mr. Gallard under-estimated the revenue from that source. I have had a good deal of experience in the carrying of manure for the convenience of ourselves and a few neighbours. During the last year I put through some 182 tons. Being busy part of the time with our horses we had to pay 8s. to 10s. a ton for delivery to my place from Hornsby Junction, a distance of 7 to 8 miles over a very heavy road.
1011. If the railway were constructed as proposed you would get it carried at a lower rate? Yes; we should be prepared to pay anything in reason.
1012. Would you be prepared to pay 2s. 6d.? I have put the amount down at 3s. or 4s. A railway would be a great convenience, because we should get the manure when we required it.
1013. What is the railway freight upon manure from Sydney to Hornsby? By taking a full truck it costs 2s. 2d. a ton.
1014. In addition to the cartage to your residence? Yes.
1015. *Mr. O'Connor.*] How many acres have you under cultivation? 160 or 170 acres.
1016. Is the other part of your land as good for fruit-growing as that which is under cultivation? A great part of it is.
1017. Would railway communication induce you to put more land under cultivation? I have no doubt it would. If it would not help us to do that, it would give us a chance to give more attention to the land we have under cultivation, causing it to produce more fruit.
1018. Is there much land round about you available for cultivation? Yes, there is a reserve on the other side of Arcadia of some thousands of acres. It is about 5 miles from where I live.
1019. What is the nearest station to Arcadia? Hornsby, about 11 miles distant.
1020. What sort of road is there between the two places? In good weather it is a fair road. In bad weather it is a very heavy one.
1021. Is the reserve to which you refer suited to the production of fruit? It would be very well suited to the production of citrus fruit and passion fruit. There is a great area of country to be taken up there, and I am sure a great many persons will be willing to settle upon it. With regard to horse feed and produce one witness said he thought it likely that a good deal could be grown in the district; I can only say that last year we had to buy it in Sydney and send it up. Last year we brought 50 tons over the railway and carted it out to our place. In our small business alone the horse feed and manure amounted to from 230 to 240 tons.

George Henry Werth, fruit-grower, Glenhaven, sworn, and examined:—

G. H. Werth. 1022. *Chairman.*] You reside at Glenhaven? Yes.

1023. Where is that? It turns of on the top of the hill, between Castle Hill and what is called Round Corner, to Kenthurst.

19 Jan., 1898. 1024. You are between Castle Hill and Kellyville? Yes.

1025. How far are you from the railway? A mile and a quarter.

1026. You are a fruit-grower? Yes.

1027. By which road do you send your fruit to market now? Sometimes by Thornleigh, sometimes by Parramatta. I have only a small orchard now, and a great deal of my fruit is sent into Parramatta for convenience sake. The distance to Thornleigh would be 9 miles, and to Parramatta 10½ miles. I keep no horse, and a neighbour carts my fruit into Parramatta with his.

1028. A railway within 1½ miles of you would be a very great convenience to you then? Yes.

1029. The advantage to you personally would be very great? Yes.

1030. That being the case, would you be prepared to pay a higher rate of carriage by rail than the rate now charged on the Great Northern line? Yes, considerably higher.

1031. What rate could you afford to pay? Threepence a case from my place to Sydney. I have to pay 4d. to Parramatta, and a 1d. from there to Sydney. I am at present charged 5d. It would pay me to pay 3d. or 4d.; but I think 3d. is quite sufficient.

1032. Have you found that your fruit has suffered very much damage from being carted into Parramatta? Yes, some fruit is considerably damaged.

1033. Would that be obviated if there were a railway? Yes.

1034. Does not fruit suffer from being carried on a railway—that is, being handled and discharged? I have not found that it suffered much from being on the railway. I have known cases, when the trucks had not been full, to be knocked out in shunting; but when the cases are properly packed in the trucks they generally arrive in Sydney in fair order. Summer fruit will sink sometimes 2 or 3 inches below the lid from jolting in a cart on the way to the railway station.

1035. If you had your own horse could you not take your fruit to Parramatta for less than 4d. a case? Not for less than 3d. for a single load.

1036. You could go to Parramatta and back in a day? Yes.

1037. And you could take a ton? No; if I took twenty cases it would be as much as I could do.

1038. That would be 6s. 8d. a day;—would not that pay you if you had your own dray? No.

1039. It would pay you to pay double railway rates, and even then you would save money? Yes.

1040. Are there others in the district in a similar position to yourself? Yes.

1041. Supposing the proposed line were constructed and the local rates were imposed, do you not think the first thing you would ask for would be to have the rates reduced to those existing on the northern line? If the line paid something over and above interest and working expenses we should certainly ask for it, but not otherwise.

1042. Suppose that with the increased rates the line still showed a loss, do you not think you would feel dissatisfied and that you were being hardly dealt with? No; we should take things as a matter of course, feeling that we should be better suited than we are at the present time.

1043. You do not think that under such circumstances you would prefer to cart your fruit to the train at Pennant Hills? No; I do not think that anyone would take to the road again once they had a railway.

1044. You do not think drays would be brought into competition with the line in the same way that they are brought into competition with the railways for general goods? I do not think so.

1045. You think a saving in the quality of the fruit and the quickness of despatch would make it worth your while to pay the increased freight? I do not think there would be any more carting by road.

1046. On the map you will see north-east from Castle Hill junction there are two roads, one going east to Thornleigh and the other south to Parramatta,—what would be a fair price from that junction to, say, Thornleigh or Pennant Hills? I should say about 2d. a case.

Henry Thomas Johnston, Mayor of Dundas, sworn, and examined:—

H. T. Johnston. 1047. *Chairman.*] You are Mayor of Dundas? Yes.

1048. The municipality of Dundas lies between Parramatta and Eastwood? Yes.

19 Jan., 1898. 1049. *Mr. Fegan.*] Do you as mayor represent the opinion of the people of your municipality? I represent the opinion of the people in the west ward who are interested in the railway.

1050. Is there a difference of opinion in your municipality in regard to the railway? There is no difference of opinion. The east ward is served by the northern railway and the west ward would be served by the Rosehill Railway.

1051. Are you a fruit-grower? Yes.

1052. You have heard the evidence of the previous witnesses? Yes.

1053. Do you agree with that evidence so far? Entirely, knowing the district.

1054. How will the proposed railway affect your district? Not so much from the fruit-grower's point of view as from a residential point of view.

1055. You think a railway would be a means of inducing fresh population to the district? Yes, considering that the line runs entirely through residential sites.

1056. What is the area of the municipality? About 2,000 acres. The population is about 850. We have a revenue of £410 and the expenditure is ditto.

1057. You think the proposed railway would make your railway of greater importance than it now is? Yes, and I desire to draw attention to a quarry in the municipality. It is an old blue metal quarry which has been worked for the last eighty years. It is in the centre of the west ward, within a mile of the Rosehill Railway.

1058. Do you supply other municipalities with metal? Yes; all the surrounding municipalities.

1059. I suppose the opening of the Rosehill Railway would give that work an impetus? Yes. Ten years ago 18,000 tons were turned out from the quarry. At the present time, through increased means of transit given to other localities, we have not been able to enter into competition with them. I refer now to Kiama and other districts. We have no other transit than drays, and the consequence is that the output has fallen to 6,000 tons.

1060.

1060. Do you think you would get more orders if you had better transit? It would mean 1s. difference if the Rosehill Railway were opened.
1061. How much do you charge on the quarry? Six shillings a ton.
1062. Would much railway revenue be derived from the quarry? I could not say what the revenue would be, but we could easily double the present output. Kiama can under-sell us owing to cheaper transit.
1063. What is the area of quarry? About 5 acres.
1064. To what depth have you gone? Seventy feet.
1065. Has the metal been tested any deeper than that? I think so. They are still going down.
1066. There is no deterioration whatever? No; the metal is just as good as it was fifty years ago.
1067. What is the depth of the stone from the surface? Within 10 feet from the surface you get into pure blue metal.
1068. How much of the 5 acres has been worked? I suppose there is an opening of about 3 acres.
1069. You think it would be well to have it tested deeper? It depends upon the depth, how long it will continue to bring in a revenue not only to the municipality but to a railway? Yes. The cartage of the quarry to Ryde Station is 2s. 3d., but we could land the metal at the nearest station on the Rosehill line for 1s.; that would make a difference in tendering.
1070. Have you had many houses built lately in your district? Yes. I suppose that during the last three years the increase would be about 10 per cent.
1071. I suppose the extension of the railway would not only give an impetus to the sale of metal and to the fruit industry, but would induce persons to reside in your municipality? In my opinion fruit-growing in that particular locality is deteriorating. What we are looking forward to within the near future is being a suburb of the city. We are within 11 miles of it.
1072. How are you supplied with water? By wells. Portion of the borough is supplied by the Water and Sewerage Board. The part served by the Rosehill Railway is supplied by wells.
1073. How far are you from Parramatta? Our western boundary adjoins the eastern boundary of Parramatta.
1074. None of your municipality is supplied by the Parramatta Water Supply? No.
1075. The Sydney Water Supply is nearer? Yes.
1076. Then you have every facility for a closer population? Yes. I may say there has been a proposal to erect a tank in the west ward for the supply of water from Hornsby. I think a sum of money has been put upon the Estimates.
1077. You have some particulars as to the west ward of Dundas Municipality? Yes. They are as follows:—Population, 450; holdings, 109; residences, 82; area of holdings, 1,030 acres; under cultivation, 450 acres; not cultivated, 580 acres; bearing, 300 acres; not bearing, 125 acres; other crops, 25 acres; number of cases of fruit, 25,000; value of produce, £10,000; quarry, 6,000 tons in 1897, 18,000 tons in 1887.
1078. Your quarry is already near a constructed line? Yes; the Rosehill line. We should benefit by the opening of the railway. There would be a saving of 1s. 3d. as compared with the present charge for cartage to Sydney.
1079. All that you require is the opening of Simpson's line? Decidedly.
1080. *Mr. Farnell.*] With regard to the land taken for the construction of Simpson's line, do you know the conditions under which it was acquired? I believe it was acquired under the betterment principle.
1081. The people therefore are anxious for the opening of the railway? Yes: they feel aggrieved at the delay which has taken place in the opening of the section. They consider that they have a claim upon the Government.

H. T.
Johnston.

19 Jan., 1898.

David Scott, fruit-grower, Arcadia, sworn, and examined:—

1082. *Chairman.*] You are a resident of Arcadia, which lies between Dural and Galston? Beyond Galston; it is in the direction of Berowra Creek.
1083. *Mr. Wright.*] You are a fruit-grower? Yes.
1084. Have you a large area under cultivation? Between 6 and 7 acres at present; the area is increasing.
1085. Have you any information to give the Committee as to the proposed railway? Merely as to my own district; there is no doubt in my own mind that the extension of the railway to Dural would be to our advantage, inasmuch as it would reduce the distance to a railway station, and would enable us to take a larger load by reason of the better road. It would also tend towards increased settlement, more particularly in our neighbourhood. We have a considerable area of vacant land there—I should say from 4,000 to 5,000 acres.
1086. It is suitable for agriculture? A great deal of it is. It is partly broken country. Our great difficulty lies in the lack of facilities for getting our produce to market. We have to take the fruit from 10 to 10½ miles to the Hornsby Junction—our nearest railway station at present. We have to go over what is known as the "Zigzag Road." The grades are very steep, necessitating small loads, and making a long day's journey. It would be testing a horse to take him to Hornsby two days running. He would want spelling between the journeys if he had anything like a load.
1087. What would it cost to bring in 30 cases from Arcadia to Hornsby? The charge for gin-cases is 6d. a case; for half-cases 4d. a case; and for what are known as packers 5d.
1088. Are the men carrying regularly? No. The orchardists make up loads between themselves. One goes in to-day and another to-morrow, and so on. They cart one another's fruit, making up a decent load on every occasion. This is done by the growers themselves. I do not know of any outside carriers.
1889. What is the quantity of fruit sent from Galston and Arcadia? I have not the information with me; but the particulars were included in the return handed in to you by Mr. Hunt, yesterday. I assisted to make up the return, and I know as far as my own part is concerned it is absolutely correct. I assisted to make up the part known as the Bay-road district. I believe that the whole of the return is not in any way exaggerated.
1090. How far are you from Galston? I have so far spoken of the centre of the district. You may take the school-house as practically the centre. That would be about 3 miles from Galston and 6 miles from Dural. There would be a saving of from between 4 and 4½ miles as compared with Hornsby.
1091. And you would have a comparatively level road? Yes.
1092. The road itself is a good one? It is fair; portions of it are being improved. The bush-track is being improved as we can get money to do so.

D. Scott.

19 Jan., 1898.

1093.

- D. Scott.
19 Jan., 1893.
1093. There is a stiff rise out of Berowra Creek which makes the carriage to Hornsby difficult? Yes; the grade is 1 in 13.
1094. You heard the previous witnesses examined in regard to charges;—do you think there would be any objection to paying 3d. a case to Sydney? No doubt the saving by railway would be worth something. In my own case I am not prepared to say it would pay us to give 3d., because we would still have a considerable haulage. Of course the residents of Dural would save the whole of their haulage. They would save the whole of their 10 miles into Hornsby or Thornleigh. In our case we would have 6 miles to Dural as against 10½ miles to Hornsby. The saving would be worth something; but whether it would be worth as much as 3d. a case I am scarcely prepared to say. I should think it ought to be worth 2d. a case.
1095. You think the people at the northern end should be asked to pay a less rate than those on the railway itself? I do not say that; I am merely stating how the matter would affect us. The concession you might get in the cartage would probably be an equivalent for the extra 3d. on the railway.
1096. It costs you 7d. at the present time to send in gin-cases? Yes.
1097. If you could get those cases taken to Dural for 3d., and if there were a further charge of 3d. to Sydney, that would be 6d. as against 7d.? Yes; we should still be in pocket if we could get it carted over the 6 miles for 3d., even if the cartage to Dural cost 4d. There would be a distinct gain if the railway charge were 2d.; but we should not be anything out of pocket if it were 3d.
1098. You think the people there would be perfectly satisfied to pay 3d.? I should not like to guarantee that; but I think it would be a fair thing.
1099. Even supposing the charge remained at 1d. at Hornsby? Even if that charge remained at 1d., they would prefer to cart to Dural, and pay 3d., I think.
1100. What is your view of the district? I believe in its future. I think its capabilities are not yet known. I, myself, sunk some money in it, and am devoting myself to it. I do not look for a fortune; but I believe that there is a big future in front of the district. I do not think the value of the ground there is yet known. Although it does not look rich, we have some of the finest orchards in New South Wales, and there are some thousands of acres of the same class of soil. The whole parish of Berowra is a railway reserve. The reserve, I believe, was made when there was some talk of taking the Northern line in that direction, and it has not since been cancelled. If the line were taken on to Wiseman's Ferry it would open up a large area of first-class land. I think there would also be a large timber trade.
1101. The best of the timber now standing would be a long way beyond Dural? I think you would strike heavy timber within 2 miles of Dural at the present time; certainly within 3 miles you would strike very heavy forest land. Among fruits the passion fruit is grown to perfection in the district—in fact we challenge the Colony in the growth of passion fruit.
1102. Have you been long an orchardist? It is two years since I purchased my orchard.
1103. You know that some of the good orchards in the neighbourhood of Parramatta are upon the sandstone formation;—would not that class of soil soon wear out? Any soil would wear out unless it were kept up to a certain standard; but a sandy soil seems to form a better standard to work upon than does a heavy clay soil. It is a better soil for the roots of trees to work in. The natural drainage is also better.
1104. We have to look at the question from the point of view of the entire Colony;—do you think the Colony would be justified in expending £60,000 or £70,000 in the construction of a railway through this district? I should think so. It would open a large district which, without better means of communication, cannot well be utilised. The district is suitable for only one thing, and that is fruit-growing; and the majority of fruits will not pay for long cartage. I believe there is a big future before our fruit, especially the citrous fruits, for which the district is especially adapted. We have the whole of the export trade to the old country before us, and if we can get the “hang” of the thing there is no reason why the same thing should not be done here as has been done in California. I believe that in the sandy loamy soil of the county of Cumberland, we have the very thing necessary for successful fruit production.
1105. You have heard of the proposed co-operative society? Yes; a co-operative society is being started which may settle the whole question for us.
1106. I gather from what you say that although the proposed line may not pay at present, the great impetus which it will give to this district will eventually make the expenditure justifiable? I feel quite sure of that. It may take a little time to develop; but there is a big future in front of the district.
1107. *Mr. Hoskins.*] You are strongly in favour of the construction of the proposed line to Dural? I am in favour of anything which will give us better facilities for reaching market.
1108. You know that according to the Departmental estimate that line will cost £7,000 a mile? I have heard so.
1109. Do you think the people affected will be willing to give such land as may be required for the construction of the line free of charge? Of course, I cannot answer for other persons; but speaking for my own district we should be only too pleased to place the land at your disposal.
1110. *Mr. Farnell.*] Is not the inferior land in your district being used for vine growing? I have not a great knowledge of the grape vine, but the district is the home of the passion vine. I believe that a Frenchman went into the grape vine industry there and did fairly well, but I cannot speak positively of that.
1111. I suppose there is a lot of surplus fruit in the district? Yes. If you are not very cautious in dealing with summer fruit—if you do not get it away before it is too ripe—you are bound to lose it. The only way to remedy that state of things would be to treat the fruit locally.
1112. Do you think a canning industry is likely to be established in the district? I should say that it is quite within the bounds of possibility. If jam factories were started by the co-operative society they would, no doubt, be put down locally as a matter of economy in preference to having central factories in Sydney. I believe some sort of factory was started last year, and it did fairly well, although it fell through at the end of the season.

THURSDAY, 20 JANUARY, 1898.

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).	
The Hon. JAMES HOSKINS.	CHARLES ALFRED LEE, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	JOHN LIONEL FEGAN, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	THOMAS HENRY HASSALL, Esq.
The Hon. DANIEL O'CONNOR.	GEORGE BLACK, Esq.
HENRY CLARKE, Esq.	FRANCIS AUGUSTUS WRIGHT, Esq.
FRANK FARNELL, Esq.	

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

James Purser, fruit-grower, Castle Hill, sworn, and examined:—

1113-14. *Mr. Humphery.*] You are a fruit-grower at Castle Hill? Yes.

1115. *Mr. Hassall.*] Have you been long resident in the district? I was born there fifty-six years ago, and it has been my home ever since.

1116. I suppose you have some knowledge of the proposal under the consideration of the Committee? Yes.

1117. How far would you be from the proposed railway? It would pass within a few yards of my property.

1118. What area have you? About 120 acres.

1119. How much of that is cultivated? I have about 60 acres of trees. I also grow a little hay and corn for my own use. There are altogether 65 acres under cultivation.

1120. Your main crop would be the fruit crop? Yes.

1121. What is the cost of clearing and planting an acre of fruit-trees? About £20. Of course a good deal would depend upon the timber upon the land. In some cases it costs £10 an acre to clear the land, and in other cases only £6 or £7.

1122. Then it would cost you from £15 to £20 an acre on the average to clear and plant? Yes, reckoning between 80 and one hundred trees an acre.

1123. You have seen the district from its start? Yes; it is about forty years since fruit-growing was started there upon a large scale. It has since improved every year.

1124. Fruit-growing is the chief industry of the district? At the present time. Prior to the forty years period to which I have referred the land was cultivated mostly for corn, but fruit was found to be profitable, and small areas of from 1 to 4 or 5 acres were planted. As time went on these areas were increased. About twenty-five years ago fruit brought exorbitant prices, and since then planting has been increased year by year. About ten years ago, when the industry was being encouraged by the Government, the land was more largely settled, and the farmers distributed their land among their families, each of whom put a certain area under fruit. Farming was then given up almost entirely, except for purely local purposes. In this way the land shortly became very valuable. It was originally worth £1 per acre, and as fruit has become more valuable so has the land increased in price. I have known from £40 to £60 an acre to be given at Castle Hill for land upon which to plant fruit-trees.

1125. That may be accepted as a proof that the industry is a profitable one? Yes. Some seven or eight years back people began to settle more extensively in the district of Castle Hill, Baulkham Hills, and Pennant Hills. Some land was selected, and others bought land. Within the past few years there has been a great increase in the population of the district, especially having regard to the adverse circumstances with which the people have had to contend. In wet weather the roads going out to Dural are a disgrace to the Colony. I have travelled over many districts in Victoria and South Australia, and have had opportunities of seeing the condition of the roads there, and I can only say that the roads in the adjoining colonies are kept in a very much better condition than are the roads in our district. The metalling of the roads has been carried out at the rate of a few hundred yards a year. People have settled upon the land, knowing that they would have to cart fruit from 5 to 20 miles in order to reach a railway. In wet weather the roads are so bad that it takes two or three horses to haul a load of fruit. I am not appearing before you to-day from any personal or selfish motives. Personally, I would rather remain as I am without any railway. I have a very large orchard containing about 7,000 trees, some of the best in the Colony. I am in a sheltered place where I am in no way interfered with, and I have good neighbours. I know perfectly well that when the railway is built there the country will be opened up, and that that may bring a larger number of persons round me, but I am liberal in my views, and I am satisfied that it is for the benefit of the Colony generally that the railway should be constructed through the district. It would lead to a large increase in the population.

1126. Is there still plenty of land available for fruit cultivation? Yes; there is a number of persons who, like myself, have made a living out of fruit-growing, and who have put by something for themselves. Having now reached a period of life at which they cannot work so well, I think they would be willing to give up a portion of their holdings. In that way I think a fair area of land would be sold from various estates. Since the Committee went over the proposed line there has been a local sale of land, and the auctioneer could scarcely believe his ears when he heard the prices offered. The land was bought in the hope that the railway would be constructed. Persons of course know that if they waited until the line was absolutely constructed they would have to pay far more for the land. The railway would open up one of the most beautiful spots in New South Wales, or indeed in these Colonies. Having travelled a great deal I am able to make comparison. In Rutherglen, in Victoria, about twenty years back, the residents agitated for a railway line from the Springs, near Albury. The land was taken up for the planting of grape-vines, and to day there are 15,000 acres of vineyards in that one district. The Victorian Government at first laughed at the idea of laying down a line to Rutherglen. At that time there were very few residents there. To-day I am told that the line is one of the best paying lines in the Colony of Victoria. That district is not to be compared with our district for the production of fruit. We have a climate which I believe to be unrivalled for the production of deciduous and citrus fruits. The capabilities of the land are astonishing.

1127. There is a belt of good soil? Yes; I have seen no part of this Colony or of the Colonies of Victoria or South Australia which is better adapted to the production of fruit. We have an elevation of

J. Purser. from 500 to 800 feet above sea-level. My son, who is a medical man, says that the climate, from the point of view of health, is superior to that of any other part of New South Wales. I myself would use the line extensively. I am sending away something like 200 tons of fruit annually, and next year there is every prospect of a very heavy crop. The trees are recuperating after the drought, and are looking splendid.

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1128. How far are you from a railway station? I use the Parramatta line because the road is down hill. It is 7 miles away. The Thornleigh station is a little nearer, but the road is much worse.

1129. You would use the proposed railway for the despatch of your fruit? Yes; and in time I should be sending away more than I am now sending.

1130. What does it now cost you to get your fruit away? I pay 2d. a case to Parramatta, and the rate is 1d. from Parramatta to Sydney. The knocking about of the fruit over the 7 miles to Parramatta does not do it any good.

1131. Would you be willing to pay 3d. a case putting your fruit on to the proposed railway instead of hauling it to Parramatta? Yes; I should be willing to pay even 4d. a case.

1132. You would reap a great deal of benefit through the fruit not being knocked about and being therefore more saleable? Undoubtedly I should. I should be quite willing to pay 3d.

1133. I suppose your case is similar to that of many other persons in the same locality? Yes.

1134. It costs them what it costs you to get their fruit to market? Yes.

1135. Do you think that other persons would be willing to pay 3d. a case to Sydney by the proposed railway? Yes; I believe they would prefer to pay 3d. to carting the fruit to Parramatta.

1136. There is also the loss of time occupied in carting to be considered? Yes.

1137. What is the average value of fruit per case—mixed fruit? It is difficult to say. I keep my oranges back until Christmas. I store them away, and by keeping your fruit in that way you can sometimes realise as much as 15s. or £1 a case. I got from 16s. to £1 a case for lemons in Sydney market last year. I think you might put down the average at 5s. a case.

1138. Does 3d. cover the whole of your present cost into the Sydney market? Yes.

1139. Then you have the charges of the commission agents? Yes. We pay by the case here. In the other colonies there is a percentage charge.

1140. The return you get upon your produce depends upon the market? Yes.

1141. How many dozen of good peaches would you put in a gin-case? I do not think you would get in more than twenty dozen.

1142. Could you get in sixteen dozen of the very best peaches? They would be a very large peach.

1143. What would they be worth? They are selling very well this year—about 4s. to 10s. Good peaches have brought from 6s. to 8s.

1144. That would be from 3d. and 6d. to 9d. a dozen? Yes.

1145. Have any steps been taken to bring about a system of co-operation under which the fruit could be distributed direct by the grower to the consumer? An agitation has been going on for some time, and I believe that eventually a co-operative society will be formed.

1146. In that case the fruit-growers would reap a largely increased profit? Yes. I send a great deal of my fruit out of the Colony. Last year I sent 3,600 cases of stone fruit to New Zealand.

1147. The effect of the system would be this—that the public could rely upon obtaining a supply of first-class fruit at a reasonable price, while the growers would at the same time derive more from its sale? Yes.

1148. It is the middleman who gets the most benefit now? Yes.

1149. You think that any estimate which might be formed of traffic upon the proposed railway would be largely increased from the additional number of persons who would profitably occupy the soil? Yes.

1150. The fruit would be conveyed more directly to market, and the fruit-growers as well as the public would be benefited proportionately? Yes. I believe a railway would increase the produce of the district threefold.

1151. If the quantity of fruit increased very much you would have to look outside Sydney for a market? Yes. I send the greater portion of my stuff away now.

1152. You have established a connection in New Zealand, Victoria, and Queensland? Yes.

1153. But in any case fruit-growers would have to use a railway to get their fruit to the port of shipment? Yes. I may mention that all the heads of the Agricultural Departments of the other colonies have visited my orchard, and have expressed their surprise that such a good fruit producing district should have no railway conveniences. The Speaker of the Legislative Assembly recently visited the district, and was surprised when he saw that such a magnificent locality was without a railway. Every stranger who comes into the place notices the same want, and wonders how we get along without a line.

1154. What is the country like going on from your district to the Hawkesbury? From Glenorie to the Hawkesbury there is some good land. Almost all the land of any value at Glenorie has been taken up, but people have so far done very little with it because they find it so difficult to get their produce to market. There is a good deal of Crown land in that direction. There is also splendid timber in some of the gullies. It has been lying there for years on account of the inconvenience attending the getting of it to market. If there were a railway to Dural the whole of that timber would be utilised. It would be from 6 to 12 miles from the terminus. I do not know of any place near the city where you could find a better supply of wood for fuel. There is ironbark, oak, box, black butt, and all kinds of good timber. The Commissioners estimate a revenue of only £1,400 for the proposed railway. I bring the return from fruit at only 2d. a case up to £1,000. The passenger traffic would be far more than the general public imagine. The inhabitants of the district will largely use the line. It is not at all likely that with a railway in the district persons would drive 14 miles to Parramatta. There is not one in ten who would do so. Where they use a buggy once now they would use a railway five times. It would also be a good line for excursionists, pleasure-seeking, or sight-seeing, and I believe that eventually it would pay splendidly.

1155. You think that facilities for travelling into the district would be availed of by the people of Sydney desiring to see a fruit-growing district, and that the estimate of the Railway Commissioners in regard to passenger traffic would be largely increased? Wonderfully increased.

1156. Do you know of any persons through whose land the railway would pass? I know a few of them.

1157. Do you think they would be willing to give free of cost land which might be required for the railway? I could not say definitely, of course, but I believe they would.

1158. I presume that any unimproved land which might be required would be given free of charge? I believe that it would, but I am not in a position to say. In regard to improved land I think the

Government

Government would be able to get it at the cost of the improvements, and the probability is that the people would be quite willing to give the unimproved land.

1159. *Mr. Hoskins.*] Have you heard any persons say that they would so appreciate the advantages of a railway from Carlingford to Dural that they would be willing to give to the Government any unimproved land which might be required for the construction of the railway? I have heard that opinion expressed, but I cannot remember by whom.

1160. The estimated cost of the line, exclusive of land, is £6,292 per mile. The average cost of railways constructed lately in the Colony has been between £2,000 and £3,000 a mile? I can hardly understand the line costing £6,000 a mile. I should think it could be laid for much less than that.

1161. Assuming that the line would pass almost entirely through private property the expense of the land is a serious consideration? Yes. As regards the expense of the line I think there is too great a discrepancy between the estimated traffic and the cost of working the line.

1162. Do you not think that having regard to all the circumstances the people through whose property the line passes should be prepared to give free of charge such unimproved land as might be required? I do not think so. I believe that if the matter were put to the people in that way they would be found willing to give the land. If the construction of the railway were made conditional upon the giving of the land I quite believe the land would be given.*

Walter James Black, fruit-grower, Glenorie, sworn, and examined:—

1163. *Mr. Roberts.*] Where do you reside? At Glenorie, 5½ miles to the north of Dural.

1164. How many miles would it be from Galston to Glenorie? As the crow flies, about 3½ miles.

1165. Is there not a good road from Glenorie to Galston? No.

1166. Where do you put your fruit on the railway? At Thornleigh, a distance of 13 or 13½ miles. I come down to Dural, and go thence east to Thornleigh.

1167. Can you land your fruit there and get back in a day? Yes, I get home on the same day; but in wet weather it takes four horses to draw a two-horse loading. I generally take from 30 cwt. to 2½ tons.

1168. Is it a fairly good road in fine weather? Yes, except about 3 miles of it, where the grade is very steep. In some places the grade is what you might call one in nothing.

1169. In wet weather the road is a very indifferent one? Yes; they are talking of making a bridge, which would make the grade to which I have just referred 1 in 13, so you can just imagine how steep it is without the bridge. There is a good road ordinarily from Dural to Glenorie, but in wet weather it is very bad.

1170. How many acres have you? I and my mother own about 280 acres.

1171. How many acres have you under cultivation? Sixty-four.

1172. Is it all under fruit? Yes.

1173. What kinds of fruit? Principally citrus fruit; but we grow a good deal of summer fruit.

1174. How long have you resided in the district? Thirty-four years; I was born there.

1175. Do you find the fruit-growing industry a profitable one? Yes; but we are at a great disadvantage. We live at a good distance from the railway, and it takes me all day to get in a load of fruit, whereas other growers can get in two loads; we are, therefore, very heavily handicapped.

1176. The load would not be of the same value as if you were in close proximity to a railway line? It makes the carting a little bit dearer.

1177. Is the land all taken up in your direction? No; there is plenty of it to be had.

1178. What is the value of improved land? Land which has been planted for a few years, and which is fruit-producing, would cost from £28 to £40 an acre. Unimproved land would run at from £6 to £18 an acre.

1179. Has all the Crown land been alienated? Pretty well all of it.

1180. Do you know the country about Galston? I am not thoroughly acquainted with it.

1181. Is the land there as valuable and as fertile as at Glenorie? Yes.

1182. Is all the land in your neighbourhood well adapted for fruit-cultivation? Yes, thoroughly.

1183. You are acquainted with the proposal which has been referred to the Committee? Yes.

1184. Looking at the matter in the interests of the public, do you think it would be wise to extend the line from Carlingford to Dural? I should say that it would.

1185. You think it would bring more prosperity to the district—that more land would be cultivated? Yes. Five years ago there were practically no orchards in our district. Now there are orchards all over the place. There are from eighty to ninety orchards.

1186. Is there a great demand for land out there? Yes.

1187. If the line were extended from Carlingford to Dural, instead of putting your fruit on to the railway at Thornleigh you would put it on at Dural? Yes.

1188. You pay only 1d. a case from Thornleigh? Yes.

1189. Would you be prepared to pay an extra 2d. from Dural? I would sooner pay 3d. from Dural than cart to Thornleigh, where the rate is 1d. You see the man would be at home, and in that way a great deal of money would be saved.

1190. It would mean a saving of half a day? My man could be home at half-past 9, after leaving a load at Dural; whereas at present he is not home until 6 or 10 o'clock at night, according to the weather. It occupies the whole of the day, and in wet weather a great part of the night as well. Besides that, there is the wear and tear of the horse. Horses are not fit for anything the next day after making the journey to Thornleigh with a load.

1191. Is the country more undulating between Dural and Thornleigh than between Glenorie and Dural? Yes.

1192. The fruit gets more knocked about in going over that kind of country? Considerably more.

1193. That is one of the reasons which prompts you to say that you would sooner pay 3d. from Dural than a 1d. from Thornleigh? Yes.

1194. Would it not pay you to put your fruit on to the railway at Hornsby? It would be 10 miles as against 13; but the road is worse. There is a short cut into Galston, but we could not send the fruit over it. The journey down to Dural and up to Hornsby would be the same distance as the journey to Thornleigh.

1195.

* NOTE (on revision):—I would like to add that from the proposed terminus of the line under consideration there is much good country right through to Singleton, via the Macdonald River, Wollombi, and bordering on Merriwa. Much of the land is splendidly situated for the production of all kinds of fruits, and there is also on the route much first-class land for agricultural and grazing pursuits, and then I believe it would shorten the distance from Singleton to something like 50 miles.

J. Purser.

20 Jan., 1898.

W. J. Black.

20 Jan., 1898.

- W. J. Black. 1195. Where do the Galston people put their fruit on to the railway? Some at Hornsby and some at Thornleigh. If the railway came to Dural their fruit would be taken there. The journey is less and the road is better.
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1196. *Mr. Hoskins.*] How far from your property would the proposed railway be? $5\frac{1}{2}$ miles.
1197. *Mr. Humphery.*] Had you an opportunity to check the estimate of earnings presented to the Committee by Mr. Hunt? Yes.
1198. Did you assist in the collection of statistics? Yes; I gathered the Glenorie statistics.
1199. Then, as far as the return relates to Glenorie, you could vouch for its accuracy? Yes; if anything, we have under-estimated the traffic.
1200. Therefore, we may accept the statistics relating to Glenorie as trustworthy? Yes.
1201. *Mr. Fegan.*] In the event of the line being constructed, I suppose you would not be inclined to cart your produce to the Hornsby Station or the Hornsby Junction, seeing that the charge from that point to Sydney would be only 1d. a case? No. Going to Hornsby would mean a day's work, whereas we could make the journey to Dural in 3 hours.
1202. What is the difference in mileage? The distance to Hornsby would be 13 miles; besides it would be all good road going to Dural.
1203. There is a large number of persons whom it would pay better to cart to Hornsby? No; they would send every case to Dural. They would not entertain the notion of going to Hornsby.
1204. Do you think a guarantee could be obtained from the people that they would send their produce to Dural instead of *via* Hornsby? Yes. They would gain immensely in the better condition in which the fruit would be put upon the market.
1205. What does it cost to clear land in your district? From £8 to £14 an acre. I might also mention that there is a great deal of timber there—oak, ironbark, and white mahogany.
1206. *Mr. Wright.*] Is there good marketable timber in your neighbourhood? Yes; the ironbark and white mahogany. I have some valuable timber on my own property. The timber on the Crown lands is not so good, although there is good timber there. A good deal of it has been cut out, but there is a lot of private property with good timber on it.
1207. Could the railway authorities look with confidence for a certain amount of traffic in timber? Yes; especially in firewood.
1208. Do you think there would be any traffic in timber for building purposes? Yes.
1209. You think the distance is not too long for the haulage of that class of timber? No.
1210. Is it possible to get firewood in the immediate neighbourhood of Dural? Yes; each week there is a tremendous lot of firewood going away. Persons can get their land cleared almost for the price they get for the wood.
1211. Then there would be some addition to the freight estimated by the Commissioners, inasmuch as there would be the freight upon wood? Yes.
1212. Is it possible that any other industry might be developed in the district? Well, there are a good many vegetables grown. I myself grow from 1,500 to 2,000 bushels of green peas every year for sale in the Belmore Markets. My fruit is all sent away to Victoria or New Zealand, or to the country districts.
1213. Do you think the land in your district is suitable for market-gardening? I think there is every prospect of some of the land being used for that purpose. We can grow cauliflowers and cabbages admirably.
1214. You know that Sydney is at present largely supplied with those vegetables from Victoria? Yes.
1215. You think that if there were a railway in the district it would compete successfully with Victoria in the production of those vegetables? Yes; there are a lot of vegetables brought in from Dural.
1216. You think that that is further traffic, then, which has not been taken into consideration by the railway authorities? Yes.
1217. Can you give the Committee any idea of the probable expansion of the district in the event of a railway being constructed through it? At our end it would go ahead in leaps and bounds.
1218. What is the price of unimproved land suitable for orchard purposes or for market-gardening? From £6 to £14 or £15 an acre. It would cost on the average about £9 to clear the land.
1219. Would it pay anyone to purchase land at £20 an acre for fruit-growing? If the man had experience, not otherwise.
1220. You think there is a large future before the district? I do.
1221. You do not anticipate a glutted market, as far as fruit is concerned? I might mention that I used to send all my apples to Brisbane, but this year they have legislated in reference to the codlin moth, and now we cannot send our apples there. If anything like that were to come about in the other colonies it might bring about a glutted market here. Apart from that, I do not think there is much fear of a glut.
1222. The Committee have been informed that a co-operative society is in process of formation at the present time for the sale of fruit, and for the preserving and canning of that portion of the produce which cannot be sold locally, or which cannot be exported? Yes; I think the society ought to be a great success.
1223. Do you think the fruit-growers in your district will subscribe the capital necessary to establish such a society? Yes; I am sure that all the people who can afford to subscribe will do so.
1224. If you are successful in establishing a society of that kind all fear of a glut will be removed? I think so. If we make a success of the preserving and canning industries we need not fear a glut.
1225. You are aware that New South Wales imports canned and preserved fruits to the value of a quarter of a million? Yes.
1226. If the proposed society is established a large amount of money which is now sent to foreign countries for canned fruits will be paid to our own growers? Yes; I quite believe that.
1227. You think the proposed railway would help largely to develop your district? Yes.
1228. *Mr. Trickett.*] Are you sure that it would pay anyone to give £20 an acre for orchard purposes? Yes.
1229. Suppose a man bought land in a state of nature at that price, how long would he have to wait for any return? He would get a small return in three years; he would get a fair return in four years; and in five years he should get a handsome return.
1230. So that anyone starting in the fruit industry must have a certain amount of capital? I do not say that that is absolutely necessary, because men have come to Glenorie within the last five years without
any

- any capital. Formerly they were glad to go out labouring at 5s. or 6s. a day. They do not want to work to-day. Before they started with their orchards they were actually poor men. W. J. Black.
1231. Do you export both citrus and summer fruit? I send my summer fruit chiefly to New Zealand, and the citrus fruit to Victoria. 20 Jan., 1898.
1232. Which is the more profitable? The citrus fruit, because it is less risky; it does not get knocked about so much on the railway; it is not so perishable.
1233. We hear that the citrus fruit-trees suffer from disease? Yes, especially in cases where the orchardists do not try to cope with it.
1234. What is the nature of the disease? White aphid and red scale.
1235. Are you able to cope with it—to keep it under? We are not able to thoroughly eradicate it; but we can keep it from injuring the fruit, so that the trees will bear a regular crop every year or second year.
1236. Are not a number of oranges and lemons imported into New South Wales? Yes. There is a considerable importation of Sicilian oranges and lemons. They do us a lot of harm.
1237. You export your fruit because you get a better market for it in the adjoining colonies than you would have in Sydney? Yes.
1238. Do you export through an agent? No, I send direct. I have my agents in Victoria and New Zealand. I do not sell more than five cases in every hundred in Sydney.
1239. Are there many diseased orchards in your district? They are not thoroughly diseased; people are able to cope with the disease.
1240. What price do you get for your fruit, taking all the year round? I sometimes get from 15s. to 16s. a case, but for the next consignment I may get as low a price as 2s. 6d. or 2s. 9d.
1241. Would that be from deterioration or from a glutted market? Sometimes it is due to a glut, and sometimes it is owing to the fruit being carried on the hatches on the steamer and being landed in bad condition. When the fruit is landed in good condition we always get a good price. I get more for a quarter case in New Zealand than I should get for a full case in the Sydney market.
1242. Did you say that 5s. a case would be a fair average? Yes.
1243. It pays you better to export your fruit than to sell it locally? Yes.
1244. *Mr. Humphery.*] How long has your orchard been in full bearing? Part of it for about thirty years.
1245. What has been your experience of the exportation of fruit—has it been satisfactory? Yes; although I had some hard knocks.
1246. Have you been able to pay all the expenses of production and receive a reasonable return for your outlay? Yes.

John Purser, fruit-grower, Carlingford, sworn, and examined:—

1247. *Mr. Humphery.*] You are a fruit-grower at Carlingford? Yes; I live $1\frac{1}{2}$ mile from the railway terminus at Carlingford, between Carlingford and Pennant Hills. J. Purser.
1248. *Mr. Hoskins.*] As a rule, are there many orchards about Carlingford? Yes; there is no other industry there. 20 Jan., 1898.
1249. What is the extent of your holding? My own property is about 12 acres; but I lease about 80 acres.
1250. Do you use the whole of that for fruit-growing? No; only 12 acres.
1251. Is there a good demand for the fruit you grow? Yes.
1252. Do you frequently have failures in your fruit crop? Yes; this year we had a failure, in lemons especially.
1253. Where do you send your fruit generally? Generally to the Sydney market.
1254. What does it cost to send your fruit to Sydney from Carlingford? Twopence delivered at market. One penny from Parramatta to Sydney, and 1d. from Darling Harbour.
1255. Are you in favour of the construction of the proposed line? Yes; I think it would be of great benefit to the district.
1256. Seeing that your property is only $1\frac{1}{2}$ mile from the present terminus at Carlingford, the proposed railway line would not affect you very much? The proposed line would go within $\frac{1}{4}$ mile of my land.
1257. Have you heard many persons express an opinion in favour of the proposed line? Yes; I myself collected at Carlingford the statistics which were handed in by Mr. Hunt.
1258. Are the majority of persons there in favour of the construction of the line? Yes.
1259. You have heard the estimated cost of construction? Yes.
1260. Have you heard any persons say that they would be willing to give, free of charge, such unimproved land as might be required for the construction of the railway? Not in my own district, but one man at Castle Hill told me that he would give the land required free. I refer to Mr. A. Fuller. He has about 100 acres. The line passes through his land.
1261. Do you know whether the land was given free of charge to the promoters of Simpson's railway? They had to pay. I do not know what was paid for the land, but I fancy they had to go to arbitration to save litigation. I think they paid a great deal more than they ought to have paid.
1262. You are aware that many persons frequently ask for a railway simply on account of the prospect of getting from the Government three times as much for the land required as that land is worth? Yes.
1263. Do you think the Government would have to pay a heavy price for the land in this instance? I could not say how much per acre they would have to pay for the improved land, because I have never heard anyone say how much they would take; but I do not think they would have to pay anything for unimproved land.
1264. Has any land lately been sold in the neighbourhood of Carlingford? Yes; land was sold three months ago at £29 an acre; it was partly orchard land and partly unimproved land. Blocks can be bought at £14 an acre.
1265. Do you not think that in this instance, as in others, the Government ought to insist that if a line is made, the persons through whose property it passes should give, free of charge, the required land? Yes; if the land is unimproved.
1266. Have you read the report of the Chief Traffic Manager as to the probable traffic on the proposed land? I read his report as printed in the Parramatta *Argus*, and I think he made a great mistake. He put down

- J. Purser.
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- down the population of the district from the Parramatta River to Dural at 1,500, whereas it is 3,226. These are Mr. Hunt's figures. He obtained them from the various persons who collected throughout the district. I myself collected at Carlingford, and I made the population of that district 685. I did not go more than a mile on the northern side of the proposed route, or more than a quarter of a mile on the side near the northern side of the line.
1267. The statistics are not official statistics? No.
1268. Do you think a majority of the people owning land between Carlingford and Dural would give the land required for the railway? I believe a good many would give any unimproved land which might be required.
1269. Are there many vehicles carrying passengers between the districts to which you have been referring and Parramatta? A coach runs from Pennant Hills into Parramatta making four trips a day. One also runs from Carlingford Hill making three trips a day; one also runs from Castle Hill twice a day.
1270. Do you think if the proposed railway were constructed that that traffic would be diverted to it? The whole of it.
1271. Even although Pennant Hills and Castle Hill would be a considerable distance from the railway? Yes; there would be more traffic among the fruit-growers. Some of the fruit-growers at times find fault with their agents in the market, and where one fruit-grower goes to market now ten would go if there were a railway. They would go down in the morning, sell their fruit and return at night. That would account for a good deal of passenger traffic.
1272. Do you know if there is any valuable timber about Dural? There used to be, but I have not been there for a number of years.
1273. You know the expense of getting timber to Sydney for firewood? Yes.
1274. Do you think there would be a large traffic in the firewood from the districts to which you have been referring? Yes. There are thousands and thousands of tons of wood lying in that district. It is not now fit for anything, because it would not pay to cart it to Parramatta, to Hornsby, or to Thornleigh.
1275. I suppose all the fruit-growers use a good deal of manure? Yes; besides, none of the fruit-growers grow their own corn, and stuff of that kind. All that they use is carted from Parramatta or Thornleigh. If there were a line through the district it would all be carried by it, and dropped at the different stations. Some of the fruit-growers grow a little hay, but that is all.
1276. There would be a return to the railway then in respect of manure, and in respect of agricultural produce? Yes. I suppose three-parts of the people of the district get the things they require in Sydney. They can be obtained there more cheaply. There would be a good deal of passenger traffic arising from persons coming down to Sydney to make purchases.
1277. What does it cost on the average to cart manure in the districts between Dural and Carlingford? I could not say what it costs; but it involves a great loss of time.
1278. The railways carry manure cheaply? I believe 3s. 9d. a ton is charged from Sydney to Thornleigh.
1279. If a railway were constructed through the district, manure could be obtained very much more cheaply than it is obtained at the present time? Yes; and there would be more manure used. A number of persons would like to use it, but they have not the means of carting it themselves. They have to pay for the carting, and it is then expensive. If they could go to the stations and pick up the manure there, it would come easier.
1280. I suppose the crops are generally improved when manure is used? Yes; but if you use too much manure for the citrous fruits you make them rough-skinned. It is very good for lemons.
1281. Do you, as a citizen, think the Government would be justified in making the proposed line at a cost of £10,000 a mile, exclusive of the purchase of land, in the present state of the Colony? Yes. I would not look to the line to pay at once. But there is no finer district in the Colony than that through Carlingford and Castle Hill for residential purposes. There is plenty of fine land, and there are good views.
1282. Are not those advantages to be found on the Milson's Point line? No; there are not half the views there which are to be found on this line, and notwithstanding that fact Beecroft and Carlingford are now almost little townships.
1283. *Mr. Lee.*] So far as you are personally concerned, if the line already laid to Carlingford were opened for traffic it would meet your requirements? Yes. I had an estimate of the traffic that would go from Carlingford; allowing three-quarters of a case to a tree, there would be 69,000 cases.
1284. The districts of Dundas, Carlingford, Rydalmere, and Ermington are said to be the areas which would afford produce for Simpson's line? Yes.
1285. It is estimated that that there would be some 120,000 cases from those districts? I think there will be a great deal more than that.
1286. Which is the largest fruit-growing district of the four I have mentioned? Carlingford and Dundas take the lead.
1287. It is said that 90,000 cases are sent away from Ermington? I should think it would be so. I am estimating 313,000 cases, averaging three-quarters of a case to the tree. That of course applies to the whole district through from the river to Glenorie.
1288. Do you think the existence of the proposed railway would divert any of the boat traffic from Ermington? Nearly the whole of it. I know plenty of fruit-growers who pass the terminus of the line to put fruit on to the boat. If the railway were opened I am sure they would not go past the terminus. Five or six of my neighbours pass the terminus. If the line were opened they would not have to cart the fruit more than 1 mile; they now cart it 5 miles. The reason they use the boat is, that the road to the Carlingford railway station is such a hilly one.
1289. Supposing the line from Carlingford to Dural were constructed, do you think that if the existing railway were taken over and run as an ordinary line, it would be of any considerable advantage to your portion of the district? Yes; but there would not be the advantage in it which would exist if the line were extended further.
1290. At the Carlingford end are you not already served by the nearness of the Great Northern line? No; I use the Parramatta Station; the road to Carlingford is too bad. It is half-a-mile further to Parramatta than to Carlingford.
1291. The cost of taking the fruit to Parramatta is the same as to Carlingford? Yes.
1292. If the line were extended as proposed, would it not rob the Great Northern line, on the one hand, and the Parramatta line, on the other, without increasing the produce of the district? There would be

more carriage to be paid for the fruit from Carlingford than from Parramatta. Most people would sooner pay 2d., putting their fruit on at Carlingford, than 1d., putting it on at Parramatta.

1293. The extra price might make the line pay, at the same time it would be taking traffic away from the Great Northern line and from the Parramatta line? Yes, there is no doubt about that.

1294. Do you think that there is a possibility, in the near future, of the orchards so largely increasing in number as that the extra fruit produced would more than compensate for the loss which the Great Northern line would sustain? I do think so. There will be one township, so to speak, along the whole length of line in the course of ten years.

1295. There are no townships in that direction at all? You might say there are villages.

1296. Are there any village reserves? No; but it is a beautiful district for residential purposes.

1297. Do you base your estimate of increased production upon the fact that at the present time there is a large area of virgin land? Yes.

1298. You think that land is suitable for fruit cultivation, and that if there were proper facilities for getting the fruit away its production would be largely increased? Yes.

1299. Where would there be a sale for the fruit if its production were quadrupled? What we could not sell in Sydney we should have to ship to the other colonies.

1300. Can you sell what you already produce? Yes; we do not suffer from over-production of fruit, but from the shortness of money, in the city and elsewhere, with which to buy it. It is the landlords in Sydney who make the fruit dear. Fancy a man with a little shop paying £6 to £10 a week rent; he must charge a big price for his fruit to make up his rent.

1301. But, notwithstanding, fruit-growing is a remunerative industry capable of large extension? Yes.

J. Purser.
20 Jan., 1898.

FRIDAY, 21 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

Rev. Henry Robert Pigott, Kellyville, sworn, and examined.—

1302. *Chairman.*] You are a resident of Kellyville? Yes.

1303. *Mr. Farnell.*] How long have you been resident there? About eight years.

1304. During that time you have had a good opportunity to watch the development of the district? Yes.

1305. You are acquainted with the proposal before the Committee? Yes.

1306. You have prepared a statement with reference to the proposal from the point of view of the residents of Kellyville? Yes. It is as follows:—

Rev.
H. R. Pigott.
21 Jan., 1898.

KELLYVILLE.

A Statement by Henry R. Pigott, Orchardist, &c., for the information of the Parliamentary Standing Committee on Public Works.

Kellyville—A comparatively new but important settlement, situated on the main road from Parramatta to Windsor, at a distance of from 8 to 12 miles from the Parramatta Railway Station.

1. The orchards at Kellyville are chiefly situated on the Kellyville and the Elphinstone estates: The former, a property of 1,500 acres in extent, was opened up in 1885; the latter, a block of 150 acres in extent, was opened up more recently. Six hundred acres in 10-acre lots, belonging to these estates, are still unsold. There are also 3,296 acres of waste land in private hands,—the greater part of which would, doubtless, under the stimulus of railway communication, be brought into cultivation, thus raising the total area of cultivated land to over 5,000 acres.

2. The proposed Rosehill-Dural railway, in consequence of the distance from Kellyville of the nearest point on that line—some 8 miles from the more distant orchards, and also, in consequence of the roughness of the country lying between the proposed line—would be utterly useless to this settlement, and would never be used. For these reasons we oppose that scheme. We also oppose it on the ground that its adoption would shut out Kellyville from the hope of obtaining railway communication for all time.

3. Kellyville, having in view also the interest of the whole of the inhabitants of this great district—extending from the boundary of Parramatta to distant Galston—asks for “steam communication,”—meaning thereby a railway *via* Baulkham Hills, Kellyville, and Castle Hill, to Dural. We shall, however, if necessary, be satisfied with a tram-line, provided that it is constructed to carry railway trucks, so as to avoid the danger of damage to ripe stone-fruit, which would arise were it necessary to transfer the cases from the tram to the railway trucks.

4. An estimate of revenue expected from the line from Kellyville to Parramatta:—

(1) Passenger traffic—20 persons per diem, at 1s. per return ticket	£365
(2) Freight on 64,240 cases fruit, at 1d. per case	267
(3) „ 500 tons of hay, at 2s.	50
(4) „ vegetables, poultry, eggs, firewood, &c	100
(5) „ goods from Parramatta, 1,000 tons at 2s.	100
(6) „ manure	50
(7) Carriage of parcels	50
(8) Saving on carriage of mails (say)	70
Total	£1,052

NOTE—The official estimate given is evidently far too low, and most probably omits the Kellyville revenue altogether.

5. The benefit of a railway to the fruit-grower—

- (1) His fruit would reach the market more expeditiously and safely, travelling as it would at a high rate of speed over a smooth railway line.
- (2) His fruit, in consequence of this advantage, would reach the market in better condition, and would realise better prices than it does now.
- (3) The cost of transport at 2d. per case to Sydney would be lower than it is at present, as fewer horses would be needed.

(4)

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- (4) He could also either reduce the area of his cultivation-paddocks, planting up the difference with fruit-trees, or find a profitable market per rail for his surplus horse-feed.
- (5) He could procure manure at a low rate per truck from Sydney and the suburbs. He could thus avoid the danger to his land and to his trees of the use of costly artificial manures. The net result would mean less money spent for better results in fruit, both as regards quantity and quality.
- (6) He would live longer and more happily, as his anxieties and that "worry which kills" would be reduced to a minimum. He and his family could travel about more, and would thus cease to "vegetate" and commence to live.
- (7) He could, if either for personal or family reasons a change of residence became necessary, more readily and to better advantage realise on this property than at present.

For convenience of reference a tabular statement of Baulkham Hills, Lower Castle Hill, and Kellyville statistics is appended:—

	Baulkham Hills.	Lower Castle Hill.	Kellyville.	Total.
Population	667	386	521	1,574
Area of holdings	5,380	3,057	5,784	14,221
" in bearing	1,093	583	1,356	3,034
" not bearing	527	87	225	839
" of other tillage	81	87	307	475
Cases of fruit per acre	72	51	40	.....
Cases or fruit per annum	97,090	58,000	64,240	219,330

NOTE.—In adding up the general statistics, the figures given in this Table for Lower Castle Hill must be deducted from the grand total, as they are also included in the figures for Castle Hill, as supplied by the Dural Railway League.

1307. What kind of fruit do you grow principally at Kellyville? All kinds—summer and citrus fruits.
1308. I think you said in your statement that some hundreds of acres were still available for cultivation? Yes.
1309. Can that land be obtained at a reasonable figure? The Kellyville Estate is selling at £18 an acre. That is the only criterion I have.
1310. Do you think that purchasing land at that price a man could occupy it profitably for orchard purposes? Yes.
1311. Is the land which is still available of as good quality as that which has been taken up and settled upon? It varies. Of course the orchardists with large blocks of land have picked out the best portion of it. I could not say how many acres are good, and how many are not; but I imagine that the majority of the acres unoccupied are as good as any we are occupying.
1312. Do you contend that the people living beyond Kellyville—the people of Dural, Kenthurst, Glenorie, Galston, and Arcadia—would be served equally by the construction of a tramway or railway from or near Parramatta, as by the extension of the Rosehill line? Quite so.
1313. You said that an under-estimate had been made of the traffic likely to be carried upon a railway or tramway? Yes.
1314. Are you aware that the cost of a railway from Parramatta is set down by the Railway Commissioners at over £50,000? Yes.
1315. And you know also that it is said that it would show a loss of £3,000 a year? Yes.
1316. It is estimated that a tramway could be constructed at about one-half the cost of a railway? Yes.
1317. Taking the estimated cost of the tramway at £25,000, and given facilities for the use of rolling-stock which would admit of the traffic being taken right through on to the railway system without transshipment, you think the line would pay? I do.
1318. You are aware that one difficulty in connection with a tramway lies in the use of rolling-stock which could also be used on the railway? The official report said the curves were very sharp. If the line could be made without sharp curves there would be no difficulty in the matter. It is only 2 miles on this side of Dural that the sharp curves come in.
1319. But if a tramway were constructed without the possibility of using its rolling-stock upon the suburban line it would be useless? I do not say that it would be useless; but it would be less desirable.
1320. Supposing the consignors of the fruit still had to tranship at Parramatta, where would the advantage arising from the tramway come in? Apart from the drawback of transshipment, we should have the advantage of quicker transit and many other conveniences. The disadvantage of transshipment would depend largely upon the persons who handled the fruit. If it were handled carefully the transshipment would not very much matter.
1321. But as regards inward traffic, you would be in the same difficulty that you are in now? Yes; our men now put the fruit on to the truck, but subsequently it is not handled so carefully, and the consequence is that a great deal of the fruit is spoilt. You might arrange for greater supervision. The difficulty lies in other people handling your fruit. If you could so arrange that the rolling-stock and the tramway would run right on there would be no difficulty, because we should put our fruit on board and it would not be touched until it was taken off the railway by the agent, who is our servant.
1322. You are speaking to-day more particularly from the standpoint of a resident at Kellyville? Yes.
1323. Kellyville is situated from 8 to 12 miles from Parramatta? Yes.
1324. Have they good roads of access to Parramatta? Yes. The main road to Windsor, which the Committee were on the other day, runs along the borders of Kellyville proper. From the 8 to the 10-mile post there is the main road, but about the 9-mile post the road turns off, and from that onwards there are just the ordinary country roads, which are very rough indeed. I do not think any Government money has been spent on them. Now and then little grants of money may have been given to do various things.
1325. They would be by-roads? Yes.
1326. At the present time most of your fruit, if not all of it, goes to Parramatta? Yes; except sometimes to Melbourne, when the fruit is put on to the Parramatta tram and is shipped on to the steamer. I know of one orchardist at Castle Hill who does that.
1327. If the proposed extension from Carlingford to Dural were carried out, what would be the nearest point at which Kellyville would touch the line? If the line is carried out according to the survey, it would cross Castle Hill a little beyond Baily's store, and that I believe would be the station for Kellyville. It would be 8 miles off and all up hill. The nearest part of Kellyville would be about 5 miles distant.

1328. You are taking it for granted that the station would be established at Castle Hill—but supposing there is a platform at the nearest point? The point I have given you is the nearest point, as far as I can make out. Rev.
H. R. Pigott.

1329. The official report with regard to that route states that Kellyville would be within the influence of the line, and that at its nearest point it would be $2\frac{1}{2}$ miles from a station? It is 2 miles along the Show-ground road, so that that statement must be wrong.* 21 Jan., 1898.

1330. No portion of Kellyville, you think, would be served within a distance of 5 miles? Certainly not, unless new roads or bridges were built. I do not know what might happen then.

1331. Do you favour a railway from Westmead to Dural, or a tramway from Parramatta to Dural? Being under the impression that a tramway will be insufficient to carry the produce of the whole district, we held out for a railway; but given that a tramway would carry our produce, it would suit us equally well, and we should be satisfied with it.

1332. Even suppose it were impracticable to run the rolling-stock on the suburban line? We should be so glad to get the communication that we would swallow even that; but I think the difficulty to which you refer might be overcome.

1333. What does it cost you per case to send your fruit to the Parramatta station? I cannot tell. I use my own cart, and I have not averaged the cost. The man has to knock off other work in order to take in the fruit.

1334. You think it would be more economical to you to pay 1d. a case on a line between Kellyville and Parramatta than to continue the present system? Yes. I should get more work out of both man and horse; I should save labour.

1335. I think your total estimate of the revenue was £1,052? That would be the revenue from Kellyville alone.

1336. Supposing a tramway were so constructed that it would not admit of the rolling-stock being used on the suburban line, you have to deduct a great many of your sources of revenue—for instance, the carriage of manure and hay? The hay and everything except the manure could be transhipped.

1337. Have you made any approximate estimate of the traffic likely to come from Dural, Kenthurst, and those places? No; I do not know enough of the country.

1338. You think the Committee will be justified in applying the evidence which has been given in regard to the Rosehill extension to the railway you suggest through Kellyville? I take it that the evidence you have received is in favour of the route referred to the Committee; but that it would be equally favourable to the alternative route I suggest.

1339. You are not forgetting that the people of Dural, Castle Hill, and Glenorie are equally in need of the railway communication? The people there are so anxious to get railway communication that they are afraid to spoil their chances by adopting any other suggestion.

1340. You think they look upon the proposal before the Committee as the most expeditious way of getting railway communication, and that is why they are supporting it? Yes.

1341. What hand have the Parramatta people taken in this agitation? I was away on duty elsewhere when the Kellyville committee was formed and they put me on. I understood that Kellyville, Baulkham Hills, and Lower Castle Hill represented the fruit-growers alone. On attending the general committee meeting of the three bodies I found that Parramatta was also included. I objected to that, and I got into hot water by saying that they did not come into the matter with clean hands. They seemed to think that the Parramatta people going with us would be a help, but I thought it would be otherwise. Seeing that we were fighting for the same thing I did not object to their fighting with us, and I therefore continued in my position.

1342. The Parramatta people are fighting for “steam communication,” but they are more particularly directing your attention to the construction of a tramway? I may say that steam communication was merely a catchword which happened to fall from Mr. Wright, who was examined here the other day. Up to that time one party were for a railway and the other for a tramway, but it was thought that the words “steam communication” might mean anything, and they were therefore adopted.

1343. Do you think the Parramatta people desire things to remain as they are in preference to your having a railway which would bring you into direct communication with the city of Sydney? Judging from the remarks which were made before the Minister, I imagine that that is so.

1344. Is there anything you would like to add to your evidence? There is only one point. Railway communication would have the effect of saving very valuable time. I had to start to-day at 11 o'clock in order to be here at 2.

1345. A railway or tramway would give you further time in which to pack your fruit for market, and it would arrive in better condition? Generally the orchardists would be able to pack all day, and still have their fruit on the market the next morning, whereas having to start off in the morning at the present time we cannot do that. In some cases that makes a lot of difference to the quality and price of the fruit.

1346. *Mr. Wright.*] Your idea is that the tramway might be carried along the Old Windsor Road? That was my original idea, but I was informed that such a tramway could not be taken along that road.

1347. It would save a large amount of land resumption if the line could be taken along the road? Yes. I do not see why it could not be taken there.

1348. There are no steep grades there? There is a hill near Roxburgh Hall, which is the first steep grade of any consequence. The other is at the Cross Roads, but it is not very steep.

1349. The cost of the tramway would be about one-half of the cost of the proposed railway? Yes.

1350. It is estimated that the tramway would cost £28,000, and that the cheapest railway would cost £52,000? Yes.

1351. And do you think the tramway would serve the district equally with the railway? A tramway to serve the three districts of Baulkham Hills, Kellyville, and Castle Hill, and going on to Dural, if it took a middle course, would require resumption, but if it ran on the road there would have to be a branch up to Kellyville of $4\frac{1}{2}$ miles. The other part will be on the main road to Dural. If that were done, so far as our district is concerned, we should prefer a tramway to a railway; it would be more convenient.

1352. The suggested tramway would run closer to you than the proposed line from Carlingford to Dural? Yes. 1353.

* NOTE (on revision):—These are the exact measurements:—From the most distant orchard to the main road near the 9-mile post, 3 miles; from 9-mile post to corner of Show-ground road, $1\frac{1}{4}$ mile; length of Show-ground road, 2 miles; from Castle Hill corner of Show-ground road to top of hill, a little beyond Bailey's store, $1\frac{1}{4}$ mile; total, 8 miles.

- Rev. H. R. Pigott. 1353. Taking the districts 10 miles west of the existing Northern line, which would serve them best, the proposed extension from Carlingford, the tramway from Parramatta, or the railway from Westmead? I think a line from Parramatta or Westmead would benefit the whole population.
- 21 Jan., 1898. 1354. Both the eastern and western side would be well served? Yes.
1355. You know that the proposal before the Committee would take a line close to the Great Northern line? It would run parallel to that line for some miles.
1356. The country beyond the Windsor road would not be served at all? No.
1357. Do you think that if a tramway were run at 12 miles an hour it would meet your requirements? Yes.
1358. What you want is a ready means of transit at a comparatively cheap rate? Yes; we do not care very much about speed. If our fruit is started off at night it will surely get to Sydney by the morning.
1359. Parramatta is not affected by the question at all? Not in my mind, except that we deal there for groceries and things of that sort.
1360. Any railway or tramway coming through Parramatta would serve you better than the proposed line, and would at the same time preserve the existing relations between the fruit-growers and business people? Yes. I might also mention that there are several saleyards there which are very convenient; a good deal of business is done in that way there.
1361. Parramatta is one of your markets? Yes.
1362. I suppose it is second in importance only to Sydney? Yes.
1363. Then railway or tramway communication with Parramatta would be of decided advantage to the fruit-growers in your district? Yes.

Henry Jenkins, Mayor of Ermington and Rydalmere, sworn, and examined:—

- H. Jenkins. 1364. *Chairman.*] You are Mayor of Rydalmere and Ermington? Yes.
- 21 Jan., 1898. 1365. *Mr. Black.*] Have you any statistics with reference to your district? Yes. The line which would benefit our district would be the line from Rosehill. The number of inhabitants benefited by that line would be 1,240. There are 600 acres under cultivation in our district, and 1,700 uncultivated. The number of holdings is 180; and I estimate that the number of cases sent away each year is 60,000, taking one case for each tree. I am referring now to Rydalmere and to a part of Ermington. I might also mention that we have blue-metal quarries in our district.
1366. You think your district will be benefited by the opening of the Rosehill railway, and that that line is not likely to be opened unless the Government takes it over? Just so.
1367. You have not formed any opinion as to whether the line would be payable if it were opened? I think the district would become very thickly settled. The land there is not too suitable for orchards. There are some nice little spots, but not many. There are, on the other hand, several splendid building-sites, and a large number of new buildings have gone up during the last five or six years.
1368. You think that the opening of the railway would make the district a favourite place of residence? Yes.
1369. I suppose that is true not only of the constructed portion of the line, but of the portion which it is proposed to construct? Yes; even if the line is not extended beyond Carlingford it will attract a great number of new residents.
1370. Have the people who reside there now any difficulty in getting to the city? They have a great difficulty in getting their fruit in. From Rydalmere to Sydney it is 12 miles. A great many send their fruit by road, and the others by steamer. We estimate that if the Government takes over the line it will charge from Rydalmere what it costs us now from Parramatta to Sydney. The charge by boat is 2d. a case. If the fruit is taken by road the charge is 7d. or 8d., including commission and market dues. The road carriage saves handling, as compared with the boat traffic.
1371. How do the people of your district make for Sydney or for their business places? They go to Parramatta or Ryde, and there is a steamer at Ermington wharf. There is a wharf between Ermington and Rydalmere—the Dundas wharf—but it is very seldom that the steamers can come in there on account of the depth of water. The steamers used to come to Rydalmere, but owing to the silting up of the river that has become impossible.
1372. *Chairman.*] You stated just now that a considerable number of persons in your locality carted their fruit to Sydney? Yes.
1373. How far would they have to cart it? From the centre of Rydalmere to the post-office is 12 miles.
1374. What proportion of the fruit is carted? So far as Rydalmere is concerned two-thirds of it, and the same with regard to Ermington. None of the growers there have very large places, and they try to make as much as they can by carting their own fruit. I do not know what the market dues and commission amount to.
1375. *Mr. Hoskins.*] What is the distance of the average resident at Rydalmere from the existing Carlingford station on Simpson's line? Three miles.
1376. How far have the people generally to cart their fruit down to the steamer at Ermington? Four or 5 miles.
1377. *Mr. Wright.*] Is any fruit in your district sent to Eastwood or Ryde? Yes.
1378. The great portion of it goes by river? More goes by road.
1379. Does any go to Parramatta? Very little.
1380. Do you think that if the Rosehill line were opened it would be largely patronised by fruit-growers in your district? Yes. I went with a petition two years ago, asking them if they would patronise a luggage-steamer at Rydalmere wharf; they distinctly told me they could not guarantee their fruit to the steamer, as they had already promised it to the Rosehill railway.
1381. *Mr. Hoskins.*] Do the larger number of the residents live nearer the line than to the steamer? Nearer the line.
1382. *Mr. Wright.*] How far back from the river does Rydalmere extend? Back to the Kissing Point-road.
1383. How have you compiled the statistics you have given to the Committee? From the rate-book, which shows how many acres are under cultivation. We average 100 trees to the acre.
1384. *Mr. Farnell.*] Suppose the Rosehill line were opened for traffic, would it to a certain extent obviate the necessity for a vehicular traffic bridge over the Parramatta River? Yes.

James Tamsett, fruit-grower, Baulkham Hills, sworn, and examined :—

1385. *Chairman.*] You are a resident of Baulkham Hills? Yes.
1386. *Mr. Humphery.*] Are you a fruit-grower? Yes.
1387. How long have you resided in the district? A little over fifty years.
1388. What is the area of your holding? I have about 21 acres; about 12 acres are under fruit.
1389. You are familiar with all the proposals shown upon the wall map? Pretty well.
1390. I suppose your evidence would not be favourable to the extension of the Rosehill line, but would be favourable to the Parramatta extension? Yes.
1391. You desire to corroborate Mr. Pigott's statements? Yes; and I might add that there is a great quantity of firewood which would be brought down by the proposed railway to Parramatta. A great deal of building material goes out from Parramatta. I live on the roadside, and I see every day great quantities of building stuff going out. Immense quantities of bricks go out every day. All that traffic would go by railway.
1392. You do not think the proposed extension from Carlingford would serve your district? It would be of no advantage to Baulkham Hills or Kellyville.
1393. What line do you advocate? I think a line might pass through on the lower side of Castle Hill, by Glenhaven. Of course we should be satisfied with the tramway if it were strong enough to bring in our produce. It must be capable of bringing in 80 or 100 tons at a time. If that quantity could be brought in without transhipment to Parramatta there would be no objection to a tramway. There is a certain amount of haulage to be done, and we do not mind whether it is done by a railway or tramway.
1394. *Chairman.*] Which would pass through better country—the proposed Westmead line, or the proposed Dural line? The Westmead line. There is very good land to the west of that line. There is also good fruit-growing country from Pennant Hills to Carlingford. From Carlingford to Clyde the country is not uniformly good, although there are good patches in it. On the Westmead line the whole of the land is good.

J. Tamsett.

21 Jan., 1898.

William Henry Smith, fruit-grower, Castle Hill, sworn, and examined :—

1395. *Mr. Trickett.*] What is your occupation? I am a fruit-grower, at Castle Hill. I have 81 acres W. H. Smith. there, of which 22 acres are cultivated. I grow both summer and citrus fruits.
1396. How long have you carried on your present occupation? At my present place about twenty-two years, but I have had some thirty years' experience as an orchardist.
1397. Do you find the district a good one for fruit-growing? Yes.
1398. Upon your present holding, have you used the same piece of cultivation continuously? Yes.
1399. And it is still in good going order? Yes.
1400. You know the proposal to construct a line from Carlingford to Dural? Yes; when a private company asked for permission to construct that railway, running, as it did, parallel with the main Northern line, I said that if any Member voted for it it ought to be his last vote. If the Government are inclined to take over the Rosehill railway the matter may be viewed somewhat differently; but it seems somewhat extraordinary that £6,000 should have been voted for the construction of a bridge from Hornsby to Galston, and that in the face of that a private company should have been given permission to construct a line within 3 miles of Galston. I may say that I have taken no active part in the present agitation. I am so situated that it is immaterial to me personally which line is constructed. Either will have to form a station of within a mile of where I reside.
1401. Either the line from Westmead to Castle Hill or the line from Carlingford to Dural would serve you? Yes.
1402. Looking at the matter from the public point of view, which line do you think would be the better one? I prefer the Westmead line through Baulkham Hills and Castle Hill—where the route was first surveyed for the Northern railway.
1403. Why do you think that the better route? Well, Parramatta is the capital of the district. Our law courts were there, and our doctors, until lately, were there; and it also contains a hospital and other institutions. If the other routes were adopted, Castle Hill and Baulkham Hills would be left out in the cold for a number of years. For the first 3 miles of addition to the present Rosehill line the people have a railway within a moderate distance. Any fruit-grower who is within 2 or 3 miles of a railway is not badly off for means of communication.
1404. The last witness expressed the opinion that the country on the line from Westmead to Dural was better than that on the proposed route? It may be as good, but it is not better. I look upon the strip of country from Carlingford to Pennant Hills as being one of the most valuable spots in the country for the growth of fruit; but it would be an expensive way to take a railway, on account of the land resumption.
1405. What about the part of the district between Carlingford and Rosehill? That has borne a bad name lately for fruit-growing. There are several nurseries there, and there has been a great objection to purchasing trees there.
1406. I suppose another reason you have for advocating the line to Westmead is that it would be somewhat cheaper to construct than would the line from Carlingford? I think it would be cheaper. The hilly country in the other direction would naturally make the line somewhat expensive.
1407. It is estimated that the line from Carlingford to Dural would cost, with the amount which it is proposed to pay the private company, £63,000, whereas the line from Westmead to Dural is estimated to cost only £57,000? I am aware of that, and of course it is an element in the case.
1408. What do you do with your fruit? I send it to Sydney for sale.
1409. Both soft and hard fruit? Yes. I send it now to Thornleigh, on the Northern line. It costs me 1d. a case to send it there.
1410. What do you suppose it costs you to cart your fruit from your orchard to Thornleigh? About 2d. a case, and the railway freight from Thornleigh is 1d.
1411. How many cases do you put on a cart? About thirty.
1412. How much does it cost you to send your fruit to Westmead? I have never sent any fruit to Westmead; there is no direct road to that place from here.
1413. Why do you send your fruit to Thornleigh instead of to Westmead? It is only about half the distance. Lately the Government erected a platform at Pennant Hills which has saved us some distance. I am 4 miles from that platform.

1414.

- W. H. Smith. 1414. From a monetary point of view you would be no better off than you are now if the Westmead line were constructed? We should have the convenience of a railway into Parramatta.
- 21 Jan., 1898. 1415. What good would that do you as regards the carriage of your fruit? By having a railway to receive the fruit late on the day on which it had been pulled we should save quite 2d. a case? The fruit would be fresher when put upon the market.
1416. A witness said yesterday that a great deal of the profit went in agents' charges? I think that as a rule they have the better end of the stick. For my own part, I send to market only fruit of good quality. The poorer quality I bury for manure.
1417. If you send a good article to the Sydney market you find fair prices? Yes.
1418. Those cases in which fruit is sold for less than the railway charges and commission are cases in which the fruit is an inferior article? I should say so. If the fruit-grower studied his own interest he would never allow poor fruit to leave his orchard.
1419. *Mr. Lee.*] What is likely to be the future of your district? A railway would cause it to grow very fast.
1420. But your orchard will wear out in time;—how is the freight then to be supplied for a railway? Those who have the land must re-plant, as I have done.
1421. We must look to fruit as furnishing a large proportion of freight for a railway? Yes; I might also mention that there are many places suitable for building which would be cut up and sold if there were a railway.
1422. There is plenty of new land which could be brought under cultivation? Yes.
1423. The reasons the fruit-growers urge the construction of the line is that it will be a great convenience to them, not that it will make their carriage much cheaper? Quite so.
1424. Since the railway is dependent upon fruit for freight, what would be the state of things if there were a bad season and fruit failed? There might occasionally be a failure, but I urge the construction of railways into all parts of the country where there is any probability of their paying. I blame the Government for not making the lines pay by increasing the goods charges and passenger fares.
1425. Do you think the districts affected by the proposed railway extension are capable of carrying a population four times greater than their present population? A population ten times as great.
1426. Suppose the output of fruit is materially increased, will there be a market for it? It will not do to increase the output of fruit while you have free ports.
1427. But do you not grow more fruit in a good season in the county of Cumberland than can be consumed in the city and suburbs of Sydney? Yes.
1428. As a matter of fact, a large quantity of fruit goes to waste;—you cannot get any price for it? Yes; perhaps one-twentieth.
1429. It is only in seasons when the trees produce about one-half of their ordinary crop that there is a good demand? Yes.
1430. *Mr. Farnell.*] It is quite possible, however, to utilise the fruit which now goes to waste by canning and preserving it? Yes.
1431. *Mr. Black.*] You spoke just now of burying inferior fruit, but can you not feed pigs with fruit of that kind? No. It is only at certain times that we have summer fruit to bury; and the pigs will not eat oranges.

MONDAY, 24 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

Edwin Doudney, L.R.C.P., E., &c., Castle Hill, sworn, and examined:—

E. Doudney,
L.R.C.P., E.
24 Jan., 1898.

1432. *Chairman.*] You are a resident of Castle Hill? Yes.
1433. *Mr. Lee.*] Have you been long resident there? I have been there over three years.
1434. Upon what points do you desire to give evidence concerning the proposal before the Committee? I thought it my duty to place several matters before you. I do not know of any large city like Sydney which has such a beautiful district as ours within such a short distance. As far as I can see, the hills there have all the advantages of a residence up higher on the Mountains, such as at Springwood, without the inconvenience of the great distance. Having lived in several parts of the world, I have no hesitation in saying that the climate of the district is the most beautiful I ever lived in. It is much cooler in summer than lower down in Sydney, while in the winter it is not so cold as it is upon the Mountains. When it has been 108 or 109 degrees in Parramatta, upon my back verandah, which is exposed to the sun, the thermometer has never been higher than 98. On the hottest day I never remember seeing the temperature higher than that. Another point is that the whole district is absolutely free from anything in the shape of epidemic diseases. I have never seen but one case of typhoid during the three years I have been there, and that case was imported. I have no personal interest in the matter. I have no land to sell; but, having regard to the settlement which has taken place at Wahroonga and at Turramurra ever since the opening of the Milson's Point line, I cannot but foresee that there would be most extensive settlement upon the fringe of the hills round Castle Hill and on the road to Dural. All that is wanted is rapid communication with the city. I do not consider that Turramurra and Wahroonga can be mentioned as residential sites on the same day with Castle Hill and the road to Dural. The elevation of Castle Hill is the same, but the scenery, as you know,—although you saw it under the great disadvantage

disadvantage of dust,—is, with the exception of the mountain scenery, unsurpassed in the Colony. At Wahroonga, at the same elevation, there is nothing to see but gum-trees. Then there is the great advantage of the drainage in the neighbourhood of the hills; they have a natural drainage which is not to be found at Chatswood and Wahroonga. Indeed, if they do not look out, they will soon be having typhoid there. I have been in New York, and in all the large seaport cities, and I do not know of any one of them which has, within such easy distance, such a magnificent district for residence as is to be found on the fringe of these hills. I do not know very much about the question of fruit-carriage; I am not interested in it, but from the evidence I have read I cannot but come to the conclusion that the quantity of traffic has been under-estimated. One of the Government railway officials I see gave evidence to the effect that the probable return of the railway would be about £1,000 odd. To my knowledge the coaches take more than that at the present time. There are two coaches running to Parramatta—one from Castle Hill and one from Pennant Hills. The Castle Hill coach runs through Dural to Galston, and, to my certain knowledge, those coaches make more than £1,000 a year. There will be an immense quantity of building going on immediately a railway is opened, and the place will very soon throw Wahroonga and Turramurra completely into the shade. I do not think anyone with any judgment would think of building a house at Wahroonga if he could get railway accommodation at Castle Hill.

E. Doudney,
L.R.C.P., E.
24 Jan., 1898.

1435. Castle Hill would be only midway between Clyde and Dural? About that.

1436. Would your remarks apply to the Dural country as well as to Castle Hill? Yes, right away to Dural; within less than a mile of that place there is a whole series of sites. They extend along the fringe of the hills.

1437. You think that if there were railway communication with the city it would be taken advantage of by business men to reside in your district, adding largely to the present settlement there? Yes, I am confident of that.

1438. That class of settlement would make use of the railway every day? It must.

1439. And it would be a good class of settlement, inasmuch as only persons having money with which to build would reside there? Yes, quite so.

1440. The district, I suppose, possesses another advantage over the Blue Mountains, in that it has a certain area of agricultural land? I think so. There are so many persons who like to have a few acres of orchard, or something of that kind.

1441. I presume the class of residents you contemplate are those persons who would like a country residence, and who would at the same time farm sufficiently to pay expenses? To a certain extent, I think that would be the case. Some of the residents you would get would be of the same class as those now going to Wahroonga and Turramurra—those who like to live in a cool atmosphere where there are no mosquitoes, or no flies or fogs, such as you find on the Mountains,—the place being at the same time within an hour's run of Sydney.

1442. You think, for these reasons you have given, the railway officers have under-estimated the probable traffic? Yes.

1443. Have you any choice of route? Since Simpson's railway has gone so far, to my mind it would be the wiser course to continue it; but the surveyed route to my notion is too much upon the hills. There was a survey in connection with Simpson's line which came about halfway down Rogan's Hill. If that route were adopted it would accommodate a large part of Castle Hill, and also people in Kellyville, who are now crying out against the present survey, and who have to go about 8 miles to Parramatta. If the route I suggest were adopted they would be able to bring their fruit over a good road, a distance of 3 miles. The route would serve them better than would any other; but it would not be of any advantage to the Baulkam Hills people, who are within $3\frac{1}{2}$ miles of Parramatta, with a metalled road there. One of our chief points is, that there can be no settlement in the district while the roads are in such a condition as that in which you now find them. Mr. Hardie (of the firm of Hardie and Gorman) comes into town every day, and on a wet day it is quite painful to see him floundering in the mud to catch his train. After two or three days' rain you cannot get out of a walk. I have been four hours going to a broken leg, in Dural, a distance of 8 miles. I could not get out of a walk. It was difficult to get along at all. As to the inwards traffic, I constantly see drays coming back with loads of manure.

1444. There would be a certain amount of traffic all the year round in summer and citrus fruits? Yes; outwards.

1445. But it would be only in the winter-time that there would be heavy back-loading in the shape of manure? They seem to always have back-loading.

1446. In winter-time the roads cut up more quickly than at any other time, and you then find it very inconvenient to travel? Yes; they cut up sometimes as much as in the summer, but they dry more quickly then.

1447. Suppose the roads were metalled throughout, would that increase settlement? I do not think so.

1448. You think that nothing short of direct communication with the city by railway would bring much additional settlement to the district? I have heard many persons say that if there were only railway communication with the city they would gladly live out that way. I desire to lay special stress upon the coolness of the climate. It is always cooler in the summer than in the city, and there are not the heavy frosts which you have on the Mountains in the winter time.

1449. *Mr. Hoskins.*] How far would it be for residents at Castle Hill to go to the terminus of Simpson's line? They would be about 5 miles away; whereas the Pennant Hills station would be $3\frac{1}{2}$ miles.

1450. The residents of Castle Hill could reach the Pennant Hills station you say in $3\frac{1}{2}$ miles? Three miles and a half of shockingly bad road.

1451. *Mr. O'Connor.*] Is the district of Castle Hill well settled at the present time? There is a good deal of uncultivated land, but it is mostly cultivated.

1452. You think that a lot of the land which is at present idle would be cultivated if a railway were taken through the district? Yes; there is a great deal of beautiful land on the right of the railway. The Bank of New South Wales has a great many acres of the highest class of land there, which is not yet cleared, and the railway would go through it.

1453. You think that land could be readily sold by the Bank if there were a railway? Undoubtedly.

1454. *Mr. Farnell.*] You occupy the place lately occupied by Mr. Tuckwell;—how far from where you are living would the survey of the proposed line from Westmead and to Dural pass? The station is just at the bottom of the hill, 200 yards away. I have a little holding of 12 acres of meadow land in which I run my horses, and I believe the proposed railway would touch a corner of that land.

1455.

E. Doudney, L.R.C.P., E. 1455. Have you given any consideration to the construction of a tramway from Parramatta through Castle Hill to Dural? I am no judge of such matters; but I am told by fruit-growers that the gradients would be too heavy for a tramway to pass along the existing roads. They would have to make the tramway off the existing roads; and if they do they might just as well make a light railway as a tramway.

24 Jan., 1898.

1456. Has it struck you that some inconvenience would follow if it were not possible to use on our suburban railways the rolling-stock which would be used on the tramway? The tramway would be of no use unless the rolling-stock could be run on the railway. It would be most unwise to contemplate transshipment.

1457. You think the proposed route of Simpson's line, if it were extended further to the west towards Kellyville, would meet the requirements of the district equally with the railway from Westmead? Equally well; the residents would be at the same distance from it.

1458. *Mr. Black.*] What is the height above sea level of the highest points of Castle Hill and Dural? The height at Baily's Corner is about 800 feet above sea level. Higher up, towards Dural, you would be about 1,000 feet above sea level; but the highest point in the district would be beyond Upper Dural.

Walter Alexander Smith, District Engineer, Roads Branch, Department of Public Works, sworn, and examined:—

W. A. Smith. 1459. *Chairman.*] You desire to submit to the Committee a statement showing expenditure upon various roads in your district? Yes; it is as follows:—

Department of Public Works, Account Branch, 7 January, 1898.

STATEMENT showing scheduled roads affected by the construction of the proposed Railway from Rosehill to Dural.

Item.	Mile-age.	Name of road.	Amount voted.					Expenditure.	
			1892.	1893.	1894.	1895 (½-year)	1895-6.		1896-7.
1178	3	Kenthurst Post-office to Porter's	£	£	£	£	£	£	£ s. d.
1006	4	Galston-road to Berowra Creek	150	150	50	30	75	75	530 0 0
1007	3	Galston to Dural	30	60	50	25	60	60	238 10 0
1008	3	Galston to Fagan's	30	30	20	10	30	60	170 0 0
1010	7	Hornsby to Galston .....	...	1,742	2,997	1,500	350	330	6,864 7 6
1013	6	Mobb's Hill to Rogan's Hill	180	240	240	120	240	300	1,276 14 4
1017	4	Pennant Hills to Mould's Corner	150	150	130	65	130	210	650 14 0
1020	2	Pennant Hills-road to Beecroft station (Murray-road).	...	60	40	20	40	40	178 2 0
1023	20	Round Corner at Dural to Wiseman's Ferry (Old North-road).	75	150	150	75	330	330	972 10 9
1072	1	Parramatta to Pennant Hills road.....	120	150	100	50	50	75	452 17 10
1074	6	Baulkham Hills to Round Corner at Dural.....	330	440	400	200	300	300	1,756 19 0
1078	4	Broken Back Bridge to Pennant Hills-road.....	160	160	160	100	200	180	619 16 7
1080	1	Castle Hill road to Old Parramatta-road.....	30	30	20	10	20	20	110 0 0
1088	2	Old Castle Hill-road to Government Reserve...	20	20	15	10	20	20	105 0 0
1089	2	Old North-road at Castle Hill to Government Reserve.	20	20	15	10	20	20	101 0 0
1093	8	Round Corner at Dural to Rouse Hill	120	120	70	35	80	100	525 0 0
1185	6	Rouse Hill and Dural-road, via Kenthurst to Fisher's.	75	75	72	50	60	90	422 0 0
1173	5	Cattai Creek, at Pearce's, to Great Northern-road at Black's.	...	...	...	...	50	60	110 0 0
SCHEDULE A II.									
23	1½	Parramatta to Pennant Hills*	60	60	60	30	60	60	330 0 0
26	½	Bettington's-lane*	32	32	32	16	32	32	176 0 0
1014	5	Pearce's Corner to Pennant Hills	60	65	60	31	65	60	306 15 0
1021	3	Ray's-road, Carlingford .....	...	...	...	...	60	60	98 5 8
			£ 1,642	3,784	4,701	2,397	2,302	2,512	16,114 12 8

* Roads within municipality of Dundas. Votes expended by Council.

Total amount voted £17,338 0 0
 Total amount expended £16,618 16 4
 Radley Creek Bridge £504 3 8

1460. *Mr. Hassall.*] In the event of the proposed extension being carried out the roads to which your statement refers would still have to be used in bringing produce to the railway? Yes; the whole of them.

1461. The extension would not cut out any of them? No; they would still be used as approach roads.

1462. The roads have been made for developing the district? Yes.

1463. The railway extension would give greater facilities for getting produce into market in conjunction with the roads already made? Quite so.

1464. Would any large sum of money be required per annum to keep in repair the roads to which you have referred? The metalling has not been completed, and I think it will be advisable to keep up the present schedule rate until it has been completed. All of the roads to which I have referred are in course of construction.

1465. When the metalling is completed the annual expenditure will be considerably less? Yes.

1466. Have you any idea how long the completion of the metalling will take? In the case of some roads it will take a matter of three or four years. In the case of the road to which Dr. Doudney referred as being so bad, we metal about ½ mile a year. We can do that out of the annual grant.

1467. Are you receiving applications for more roads? We are always receiving applications.

1468. Have you any knowledge of the proposal before the Committee? I know the route.

1469. Do you know Parramatta? Yes, very well.

1470. Which route do you think would best serve the district, the proposed extension, or a tramway connection between Parramatta and Dural? I have not considered the relative merits of the two proposals. Of course a railway would offer greater facilities for the conveyance of fruit.

1471.

1471. Suppose a tramway were constructed, and that no transshipment were necessary, do you think it would serve the locality? I think a tramway from Parramatta to Dural would go through more cultivated land than would the proposed railway. The population is already well served, but the line would immediately tap a greater area of cultivated land. W. A. Smith.
24 Jan., 1898.

1472. You think there would be more traffic on that route than on the other? Possibly.

1473. Is the district progressing? I think the lower parts are about stationary. It is progressing further back towards Arcadia, Galston, and Kenthurst. Centres such as Castle Hill and Baulkham Hills are about stationary.

1474. Are these districts at a standstill because the residents cannot at present increase their operations? They have all as much land as they can cultivate individually, and they do not care to go in for the larger operations.

1475. Do you think the population of the district is likely to increase? Yes; the district beyond Dural is improving well now.

1476. And you think that any railway or tramway extension to that point would be of great advantage not only to people on the route but beyond the terminus? Yes; it would benefit them to the extent of giving them less road-hauling. They would have 3 miles less over which to haul their fruit than they have at the present time. From Galston it is 6 miles to Hornsby and 3 miles to the proposed terminus. There is a perfect road to Hornsby. The road is metalled the whole of the way up from the valley to the high lands, because all the heavy traffic is to the station. The Galston side is being gradually metalled.

1477. I suppose the bulk of the produce from Galston goes to Hornsby at present? Yes.

1478. And a railway at Dural would divert the traffic on the Northern line to that point? Yes.

1479. It would save road haulage? Yes; 3 miles.

1480. You think there would be a larger settlement at Dural if there were a railway? It is all private land there, but there is plenty of land which could be cultivated.

1481. You think the land would be utilised if there were a railway? If it would pay to cultivate the land I think it would be cultivated now, because there are at present sufficient facilities for the taking away of the produce. The probability is that a great many of the residents at Castle Hill having once put their produce on to a cart or dray would be quite content to take it to Parramatta and save the extra haulage on the railway.

1482. *Mr. Hoskins.*] Do you think that if Simpson's line were extended no further than Carlingford it would be of much benefit to the fruit-growers in that locality? I do not think it would benefit them to a very great extent.

1483. The roads from the Carlingford station on Simpson's railway to the surrounding districts are very bad? No; they are very good just at that particular point. The road from Parramatta to Pennant Hills would be the chief one used by the persons in the vicinity of the railway station to which you refer.

1484. Are the roads from that point pretty good in every direction? No; they are bad in some directions, but the Parramatta road is in very fair condition.

1485. Do you think that if the line were open to Carlingford persons in that neighbourhood would still send their fruit to Parramatta? I think some would do so, because they dispose of their fruit there.

1486. Is there plenty of good road material in the district? Until lately there was practically no metal, except at Pennant Hills; but lately a white metal quarry has been found which will be of assistance in metalling the roads of the district at less than half the price they have hitherto cost.

1487. Is not the stone from the Pennant Hills quarry of good quality for road making? It is of excellent quality.

1488. Is it dear? It used to be very dear. Now you can get it for about 8s. a cubic yard.

1489. On the quarry? No; it is carted on to the road for 8s. or 10s. White metal can be obtained for 5s.

1490. But does it not pulverise very easily? No. It is vitrified sandstone—not the ordinary sandstone.

1491. You think that a tramway would be more extensively patronised than is the proposed railway; but how is access to be had from the railway station to the tramway at Parramatta, seeing that there is such a great difference in the levels? As I have already said, I have not considered the relative merits of the schemes, but if there be a great difference in the levels I should require to consider the proposal before expressing an opinion.

1492. Do you think a tramway from Parramatta to Castle Hill feasible? If the railway is very much higher than the tramway I should not care to give you an answer without looking further into the matter. I have not studied it at all from an engineering point of view.

1493. I suppose a tramway would be of very little use if the ordinary rolling-stock could not be used upon it? I should say it would not pay under those circumstances. If the producers had to tranship their goods the line would not be used at all.

1494. *Chairman.*] Assuming that the line stopped at Carlingford, and went no further, should we then be justified in taking the districts north from Pennant Hills, that is, the districts of Castle Hill and Baulkham Hills, as being outside the range of its influence? They would certainly be outside the range of its influence.

1495. Why? Because all the traffic coming from Dural, Kenthurst, Glen Haven, and Pennant Hills would have to come through Pennant Hills, and when it reached that point it would go to the Pennant Hills station more easily than to Carlingford. In the one direction there is a level and metalled road, and in the other direction the road is bad.

1496. Would the road to the Pennant Hills station be the shorter road? The two roads are about the same distance.

1497. As to the Castle Hill and Baulkham Hills districts, will they be affected by the line if it goes only as far as Carlingford? I do not think so, because the road from Baulkham Hills into Parramatta is as good as any road in New South Wales. It is slightly descending the whole way from Baulkham Hills; it would be as near to Parramatta as to Carlingford, and there would be no object in the producers going back to Carlingford, and increasing the railway haulage, when they can come into Parramatta.

1498. Take now the Castle Hill district? Although it is a shorter distance from Castle Hill to Carlingford than to Parramatta, in order to reach Carlingford the producers would have to pass through Pennant Hills, and the reason for their choosing the northern line at that point instead of Carlingford, I have already stated.

1499.

- W. A. Smith. 1499. Is the road good from Castle Hill to Parramatta? It is a fair road. I think Dr. Doudney exaggerated its condition.
- 24 Jan., 1898. 1500. Suppose the line were extended from Carlingford to Dural, would the Baulkham Hills people be benefited? No, I do not think Baulkham Hills would be affected at all, because it is so close to Parramatta.
1501. *Mr. Hoskins.*] How far is it from Pennant Hills to the Carlingford station on Simpson's line? From $1\frac{1}{2}$ to 2 miles. That line would naturally be used by the quarry, on account of its business with the different municipalities.
1502. What kind of road is there from the Pennant Hills quarry to the Carlingford station? It is a very rough one.
1503. *Chairman.*] Suppose the line were extended from Carlingford to Dural, would it be used by any of the people at Castle Hill? A portion of the Castle Hill people would use the extension. My opinion as to the Castle Hill traffic is that 2 miles south of Castle Hill the produce would go to the proposed railway, and that from a point 1 mile to the north of Baulkham Hills, the traffic would follow the Baulkham Hills traffic to Parramatta.
1504. Have you considered the freight of the proposed railway if constructed? No; I am simply telling you, from my knowledge of the district, what I believe the people would do.
1505. Would the Kenthurst, the Kellyville, the Glenhaven, and the Dural people, and the people generally on the road to Glenorie, use the proposed extension? Yes certainly.
1506. Would the Galston people use it? I do not think so, under present conditions, because Hornsby is becoming a rather important business centre. The Galston people go there to do their business, and I think they would still go across.
1507. It would be 6 or 7 miles from Galston to Hornsby, and some 3 miles from Galston to Dural? It is 6 miles against 3, but the road from Galston to Dural is a very bad one in wet weather. It is a rough bad country for road-making, whereas on the other route there is hard country, and the road has been well drained and metalled.
1508. How much would it cost to make a good road from Galston to Dural? I should say about £3,800. There would be a bad cutting, and a lot of formation would be required. I am reckoning $3\frac{1}{2}$ miles right up to the turn of the Galston-road.
1509. If that expenditure were incurred the Galston people would use the Dural extension? Yes.
1510. That applies to Arcadia? It would apply to nearly the whole of those districts.
1511. Do you know of the strength of the competition offered by the Parramatta River to such a line as that shown on the map to Carlingford;—how far would that competition reach north of the Parramatta River? I think the traffic within a radius of $1\frac{1}{2}$ mile of the wharf would trend towards the Parramatta River. I do not know exactly what the rates are, but I believe they are cheaper.
1512. Would the quarry have any effect upon the railway traffic;—would any ballast go from there? Mr. Vanderstegen cuts the other quarries very close in all competitions for blue metal. If the railway were constructed there, I have no hesitation in saying that large quantities of metal from his quarry will be conveyed by it.
1513. *Mr. Hoskins.*] If the line were opened to Carlingford, do you think the owner of the quarry at Pennant Hills would be able to supply, not only the suburban municipalities but also the Sydney Municipal Council, more cheaply than they can now be supplied from the southern quarries? He competes now in any tendering from the metropolitan office.
1514. With better means of communication he would be able to supply the stone cheaper? Yes; at present there is long cartage, and they have to rise to great height.
1515. Is there much metal there? Yes; there is a very large deposit. I will have levels taken, and will endeavour to supply you with the approximate quantity.

Dowell Philip O'Reilly, Esq., M.P., sworn, and examined:—

- D. P. O'Reilly, Esq., M.P.
24 Jan., 1898.
1516. *Chairman.*] You are the representative of the electoral district of Parramatta in the Legislative Assembly? Yes.
1517. *Mr. Fegan.*] Have you a statement to make with regard to the proposal before us? Yes. I think that a good deal of the evidence so far given, as far as one can judge from the reports published in the newspapers, has been based on the erroneous supposition that the main purpose of any new line would be to benefit the terminal point. The whole of the evidence, including that of Mr. Deane, which, of course, is exceedingly important in an inquiry of this kind, seems to deal with this proposition as if it were solely with the view of ultimately benefiting Dural, the terminal point. But it has always seemed to me that any line constructed by the Government should, as far as possible, benefit the most thickly-populated districts and the most fertile area. I think the very capable Government officers who have given evidence before this Committee have put themselves in a very peculiar position in suggesting a line connecting Dural with one of two points on the Northern line. It stands to reason that if you connected Dural with either Hornsby or Pennant Hills you would benefit Dural, and Dural only. You would be absolutely ignoring the claims of the equally fertile districts of Kellyville, Glenhaven, Castle Hill, and Baulkham Hills. I think that, in any railway extension of this sort, the first thing should be to tap the different centres of population, and you will see that that can only be done by striking north from some point on the Western line. Personally, I do not think the hills districts will ever, or should, have a railway. Take the district between Woy Woy, on the Northern line, Richmond, on the branch Western line, and Parramatta. That large triangle of very fertile district would, I think, be benefited by a tramway from Parramatta to Dural, and I think Mr. Deane also has not quite followed the ordinary policy of the Department of which he is an officer, in saying that such a tramway would not have direct connection with or be part and parcel of our railway system. That is a perfectly new idea to me—that it is impossible for a tramway to be constructed so that its rolling-stock may pass freely over the main lines of railway. I think Mr. Deane might well be asked to revise his report, and to let us know what the construction of a tramway similar to the Camden tramway would cost. His only objection was in the difficulty of transshipment of fruit, but all that difficulty was based upon the particular report he saw fit to lay before this Committee, dealing with a tramway of more abrupt curves than the Camden tramway. I think that any feasible proposal would of necessity arrange for the trucking of fruit from Dural, for instance, direct to the

the city market. I do not know how far Mr. Deane's proposal has been carried; but it seems to me quite beside the question, and if the Committee could see their way, in view of the importance of the question to a large number of fruit-growers, to ask Mr. Deane to revise his report dealing with the feasibility of a tramway which would give direct communication by rolling stock between Dural and Sydney, I think it would be found that the additional cost of providing for that contingency would not be very great.

1518. Do I understand that you are not in favour of a railway, but that you rather favour a tramway-line? I am in favour of as much as we can get. On public grounds I express my disapproval of the proposed railway as being utterly outside the requirements of the district. I am in favour of a tramway from Parramatta; but I should be opposed to it, if it did not give the fruit-growers direct communication with the city market. I should like now to make a statement with regard to the remarks of the Secretary to the Railway Commissioners, as published in the Press. I notice that he based his attitude on the question upon the annual income from the Rosehill Race-course, and pointed out what a loss it would be to the Government if the race-course were closed, and the Government lost the traffic to it; but there is another side to the question: The Rosehill race-course is a proprietary race-course, and the district on the Parramatta River and Duck Creek, through which the Rosehill line passes, is admirably adapted for manufacturing industries;—as you know it is already being largely availed of in that direction. With this increasing district, it is quite possible that it might pay the proprietors of the race-course to cut it up into building allotments for a large number of workmen who will shortly be required in the different industries there. That at once would sweep away £600 odd per annum of the total which the Railway Commissioners estimated they would get from the line. Personally, I regard the claim of the whole district as well worthy of consideration, on the ground, among others, of the facilities which would be offered for suburban residence. Owing to the fertility of the soil, and the rapid increase of population, which I think the Railway Commissioners have not taken into full consideration, I think that the district has an undeniable claim to tramway communication. I think all the evidence is in favour of a line running in such a way as to tap Castle Hill, Baulkham Hills, and Kellyville. A line from Dural to Parramatta would benefit all those districts to a greater or less extent, whereas the other proposal would benefit only Dural. I absolutely fail to understand the object of the Railway Commissioners, so far as Mr. Eddy's report in 1896 goes in advocating the resumption of the Rosehill line, at a cost of £25,000, except upon one supposition, which has not yet been elicited, and which would entirely alter my views of the Commissioners' attitude; and it is, that Mr. Eddy had in his mind the idea of ultimately connecting the line with the Northern line, to provide for shunting or the marshalling of the northern goods traffic. That is now done at Darling Harbour, to a great extent. I can understand that being of great use to the railway authorities, but it is a question solely for them to decide. That proposal is not mentioned in the Commissioners' report. From an intimate knowledge of the district already served by this extension, so far as it goes, to Carlingford, I am convinced that the purchase of the line would be an absolutely worthless speculation on the part of the Government.

1519. Do you know the area of the Rosehill Race-course? I cannot speak authoritatively; but I think it is about 60 or 70 acres.

1520. That would settle a fair population, cut up into building allotments? Yes; there is likely to be a steadily increasing demand for such accommodation as the number of manufactories increases in the district.

1521. Do you not think the cutting up of the race-course would ultimately be the means of bringing as great a return to the railway in other ways? It might in the long run; but I am taking the Commissioners' report on their own figures. I do not think those figures are such as would warrant the proposed expenditure.

1522. Although you are in favour of a tramway line being constructed you are entirely opposed to any extension of Simpson's line? Yes; for the simple reason that I wish the largest number of inhabitants to be considered.

1523. Which is the most fertile area in that direction? Baulkham Hills, Castle Hill, Kellyville, Dural, right out to Kenthurst and Galston. My proposal would benefit those districts just as much as the others.

1524. You do not think a tramway line constructed from the terminus of Simpson's tram would suit the district equally as well as the tramway which you suggest? Certainly not.

1525. Do you think its construction could be as cheaply carried out? I know the country well, and I do not think the engineering difficulties would be great. The grades would be about the same in both cases.

1526. Do you know whether there is much ground available for settlement on the route you suggest? I think there are immense possibilities of development not only for fruit-growing but also for residential purposes.

1527. *Chairman.*] Do you know the produce which it is estimated would go over the rival line? I should readily defer in a matter of that sort to the very laborious work done by Mr. Tamsett, Mr. Moxham, and one or two other fruit-growers who went over the whole district and collected the statistics which have been handed in by Mr. Wright. I believe the figures are substantially correct.

1528. Do you know if there is much Crown land on the route you suggest? There is not; it is a very old district.

1529. *Mr. Hassall.*] The Northern line is within easy distance of the fruit-growing districts round Pennant Hills and Carlingford? Yes; and they have the river as well.

1530. You think a tramway from Parramatta would serve a large extent of country which is now practically isolated? Yes.

1531. How far does the fruit-growing country extend to the west of Baulkham Hills and Kellyville? As far as the Windsor and Richmond line. All the land is capable of production although it is not opened up yet. I might point out also that the connection of Parramatta and Dural would be of enormous advantage to the traffic between those two points as compared with the traffic between Dural and Clyde where there are no centres at all. It must be to the advantage of any line to have large centres of population on its route. A large local trade between these districts and Parramatta has been going on for many years past and would be facilitated by the tramway I suggest.

1532. You think the tramway you suggest would serve a larger population than would the line from Carlingford to Dural? Yes; every mile of the Parramatta to Dural tramway would produce a return, but the first 2 or 3 miles of Simpson's railway would be practically useless.

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D. P.
O'Reilly,
Esq., M.P.
24 Jan., 1898.

1533.

D. P.
O'Reilly,
Esq., M.P.
24 Jan., 1898.

1533. How long has Simpson's line been constructed? About four or five years.

1534. Do they run traffic along it at all? No, I do not think so.

1535. Then the extension from Rosehill to Carlingford is a white elephant? I presume the Bank, whose property the line is, would extract anything they could out of it, but they do not run it at all. There is no regular traffic between Carlingford and Clyde.

1536. Which route do you favour for a tramway;—should it go from Parramatta or should it go from Westmead? I think, undoubtedly, that the proposal to go from Parramatta is the best one. The land resumption at the corner, and the expensive bridge across the river might be avoided by bringing the line straight down O'Connell-street to Macquarie-street. You might utilise the present O'Connell-street bridge—which is now practically worthless—for a tramway; but that is a question purely for engineers to decide. It does seem to me, however, that if Mr. Deane could strengthen the bridge upon the present Simpson's line, as he said he could, he might also strengthen the O'Connell-street bridge, and utilise it for tramway purposes.

1537. *Mr. Lee.*] It would be used by the townspeople as far as the old toll-bar;—the Westmead line on the other hand would go through a good agricultural district? I do not think there is very much agriculture a small distance out. I do not think the receipts would be nearly equivalent to the traffic which the line would receive in the town. With the exception I have pointed out, I think a tramway route is the best as far as the town goes.

1538. After leaving the Windsor toll-bar, if the tramway were confined to the road, it would have to follow its contour;—under those circumstances, would not the grades be too heavy? I am always supposing that the necessary detours would be made where hills and steep grades had to be circumvented.

1539. You do not advocate a tramway adhering to Windsor-road? No, I should say that the tramway should leave the road at such places as might be found necessary.

1540. Supposing that course were adopted and that Simpson's railway were taken over by the Government and opened for traffic as far as Carlingford would there not be a big clashing between the two lines? I do not think there would be any traffic from Carlingford to Clyde under any circumstances. I cannot see what traffic a Parramatta tramway would take from the present Carlingford and Clyde lines for the reason that all the Baulkham Hills and Castle Hill people would far rather use the projected tramway than convey their produce over a rough road down to Carlingford terminus; and then again some of the Pennant Hills people are nearer to Beecroft than they would be to that terminus.

1541. The idea you intend to convey is that there is a large area of fruit-growing country and that it is difficult to plot any line which will serve the whole district? It seems to me that the only way out of the difficulty is to tap the centres of population and the richest and most fertile parts.

1542. You think that the tramway line, if carried out as indicated by you, would serve a much larger area than would the extension to Dural? Yes; and it will avoid clashing to a certain extent with the Parramatta line and with the traffic on the Parramatta River. The traffic on the Parramatta River is considerable now. Every night there are four or five ordinary railway trucks—I saw five last night—running down George-street, Parramatta, with a passenger carriage. I might also draw the attention of the Committee to the fact that we have the ordinary railway trucks in the town. I gather from Mr. Deane's evidence that the main trouble was that a railway within the township itself would have to have guard-rails. I think the very sharp curves which Mr. Deane had in his first report to the Committee might be avoided by coming down O'Connell-street towards the bridge. It is an utter mistake to suppose that there is not a take-off to the Parramatta station. The carts drive up an easy grade to the railway siding where they are level with the station.

1543. How long have you been living in Parramatta? About eighteen years.

1544. You know the district personally? I have not been beyond Dural.

1545. There has been a steady increase in the district? Yes.

1546. You formed that opinion in spite of the statements we see published from time to time to the effect that fruit-growing is not a lucrative business? In spite of all complaints—and they have undoubtedly had one or two bad seasons through hail-storms and things of that kind—I think the district has been steadily prosperous.

1547. Are you of opinion that the district is of sufficient importance to warrant communication by rail to any point? Always presuming that the communication will pay expenses.

1548. With the prospect of a railway to the district paying in the near future you think it is advisable to open up that part of the country? Yes.

1549. *Mr. Fegan.*] You think a railway would give an impetus to settlement there? Yes. I might add that there can be no doubt that the Parramatta commerce with the hills district has been largely affected by the Northern line, and while it would be further affected by the construction of the alternative route that of itself is not so serious a matter as some persons might think, because the town has already lost much of the trade with Castle Hill.

John Judah Barnett, fruit-grower, Arcadia, sworn, and examined:—

J. J. Barnett. 1550. *Chairman.*] You are a resident of Arcadia? I have an orchard there; but I reside in Sydney.

1551. You desire to point out to the Committee in what way the proposed extension to Dural would be beneficial to you? Yes. I have an area of 24 acres, which is planted with mixed fruits, and with my neighbours I find it very inconvenient to take the fruit into Hornsby. If we had a railway nearer than Hornsby, the quantity of fruit sent out of the district would be largely increased. I expect next year to send away between 2,000 and 3,300 cases of fruit. It takes my man at the present time a day to go from my place to Hornsby and back again. That, of course, is a great expense. If there were a railway to Dural he could make two trips in the day. Personally, I hope that the line will be brought on as far as Galston, which, in my opinion, is the proper terminus for a railway. At the present time my orchard has not paid me by reason of the expense which I am under; but I think that if the line were brought to Dural or Galston, I should be able to recoup myself the money I have lost.

1552. *Mr. Lee.*] Which route do you advocate? It is immaterial to us which route is adopted, so that we get the railway. The whole of the residents of Arcadia agree that the line should come, not to Dural, but to Galston. I, myself, would be willing to pay 1d. or 2d. a case more than I am paying. At the present time it would pay me well to do so, because I should be under less expense.

1553.

1553. If a railway were taken to Dural from any point, would it suit you? It would suit us far better than a continuance of the present arrangement. I wonder there are not more accidents than have occurred on the road between Galston and Hornsby—it is a two-horse road—particularly when it is wet. It is bad enough in the daytime, but at night it is absolutely dangerous. My man has often been a whole day and part of a night in going to and coming from Hornsby. He can scarcely go there and back in a day. 1554. What prospect is there of a railway to Galston giving a return upon the outlay? You would have to look to the fruit-growing industry.

J. J. Barnett.
24 Jan., 1898.

1555. That is a large one now? It is large at the present time, and I think it would increase if we were not under such a great disadvantage in carting our stuff. Strawberry and grape growing would pay handsomely, and would be largely carried out in the district if we had handy railway communication. We cannot grow strawberries and grapes at the present time, because the distance to Hornsby is too great, and the road is too rough. I might mention that the line to Dural and Galston would be along a level road.

TUESDAY, 25 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
The Hon. JAMES HOSKINS.
The Hon. CHARLES JAMES ROBERTS, C.M.G.
The Hon. WILLIAM JOSEPH TRICKETT.
The Hon. DANIEL O'CONNOR.
HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
JOHN LIONEL FEGAN, Esq.
THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.
FRANCIS AUGUSTUS WRIGHT, Esq.
FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

James Whitmore Hill, architect, Parramatta, sworn, and examined:—

1556. *Mr. Roberts.*] What is your profession? I am an architect, residing at Parramatta.

1557. I understand that you have prepared a statement in reference to the proposed railway, which you desired to submit to the Committee? Yes; it is as follows:—

J. W. Hill.
25 Jan., 1898.

Re THE PROPOSED ROSEHILL-CARLINGFORD RAILWAY EXTENSION.

My purpose in giving evidence at this inquiry is to show that, between what is known as the Hills district and Parramatta, there is a community of interests that cannot be ignored in considering any traffic facilities the district in question is entitled to. To realise this, the relationship between the town and district must be fully understood. Lying in a basin at the head of Port Jackson, Parramatta has the whole of the surrounding districts under consideration, as a watershed, and is, therefore, its geographical centre. The very fact of the downward grades focussing in the Parramatta basin, facilitates traffic and thus makes it also the commercial centre of the district, a position still further emphasised by the fact that it has both water and rail communication with the metropolis. These natural conditions made Parramatta the mother of surrounding settlements, and there has ever continued an interdependence mutually advantageous. Under it the town has gradually increased its population to 9,000 persons (excluding 3,000 asylum inmates) while the district has been strengthened and nourished by the town. Indeed, for the last 100 years, Parramatta has been the one business, banking, legal, medical, and social centre of the whole district, and has a distinctly prior and superior claim to continue so. Break up these associations however, by diverting the natural traffic as proposed by the Rosehill-Carlingford extension, and not only would the Hills population receive a severe wrench; but the 9,000 persons who have sunk one and a half million pounds sterling of capital in the connection, would be practically ruined,—for although the Hills population could, and ultimately would, readjust themselves to their new conditions, it would be quite different with the town, which depends almost entirely upon its country connection for support. As yet its factories are inconsiderable, and its position as a suburb too remote to be of value; its prosperity entirely depends upon its continuance as a receiving and distributing centre. Destroy it in this regard, and an injury will be done the town that would almost be regarded by its inhabitants as a crime, while the country will also suffer without compensating advantages. That the people of Parramatta feel strongly upon this point is evidenced by the numerous public meetings, deputations, and petitions, that have occurred upon the question; while the country has spoken by similar means no less strongly against any severance. Although the town's feelings remain unquestioned, recent evidence appears to challenge the views here expressed as to the unity of the country. I desire therefore to submit a few extracts from publicly expressed opinions of leading Hills residents, as to the Parramatta connection.

At a meeting held in Dural, in April, 1890, to advocate a line from Pennant Hills to Dural, Mr. J. C. Hunt moved as an amendment—"That this meeting pledges itself to agitate and go in for no other route but that which leaves Westmead or some point near, or actually from Parramatta, *via* Baulkham Hills, to Castle Hill, on to Dural, as it will open up a far larger area of country, and will meet the wants of a far larger number of residents, and will be a source of great revenue to the country." Mr. Hunt spoke warmly in favour; and in seconding the amendment, Mr. J. Purser said, "that this route would take 20 tons to 1 of the other." Messrs. G. R. Tuckwell, J. Shields, and others, supported, and the amendment was carried with only three dissentients.

Later in the same month Mr. J. C. Hunt wrote to the *Cumberland Mercury*, strongly condemning the Rosehill line, and supporting one from Parramatta or Westmead as infinitely better.

In May, 1890, a meeting was held at Baulkham Hills, when Mr. J. C. Hunt seconded a motion in favour of a line from Parramatta, which was carried; and in the following June a similar motion was carried at Dural, upon the advocacy of Messrs. T. T. Gray, W. E. Williams, G. H. Hunt, J. Purser, and F. H. G. Rogers.

At a monster meeting held at Castle Hill, in July, 1890, there were present among others—Messrs. G. T. Hunt, J. C. Hunt, G. Rogers, W. Tuckwell, G. Roughley, C. J. Moore, S. Moore, and J. Purser. A motion was submitted and unanimously carried which emphatically declared "that the only satisfactory route is the one proposed to pass from the Parramatta station;" and the meeting pledged itself "to agitate for the construction of such a line only."

Mr. James Purser wrote to the local press in October, 1890, insisting upon the Parramatta route, and in January, 1894, he presided over a meeting at Castle Hill to claim a tramway from Parramatta, the motion being carried unanimously; there being present among others, Messrs. J. Bennet, J. Carollan, J. W. Foster, C. J. Moore, S. J. Moore, sen., W. H. Tuckwell, F. Black, S. J. Moore, jun., J. C. Hunt, E. P. Fuller, and E. Purser.

In March, 1894, Mr. J. Purser wrote strongly denouncing the "Simpson's" line in favour of a tram from Parramatta, and later, in April, wrote again in the same strain.

Although these extracts do not by a good deal cover the whole advocacy of the Hills people in favour of the Parramatta ties, they are sufficient to prove that the inhabitants are convinced that their best interests would be served by it. Further, the independent opinions given by Government experts at this and other inquiries are distinctly against the proposed

J. W. Hill. proposed Rosehill-Carlingford extension, and, added to lay evidence, prove that it would be a greater wrong to a larger body of people and interests than it could possibly benefit; in other words, the proposed extension would produce a maximum of wrong for a minimum of benefit. Indeed, it is safe to declare that everything said in favour of the extension may be repeated with added force in favour of the Parramatta alternative. Neither the distance, engineering difficulties, cost, or compensations are greater, and for a tram service would be much less, while the route is equi-distant between the Northern and Western lines, would serve a larger, finer, more productive and populous district, would not compete with any existing line, and is the only natural and legitimate route for steam communication to Dural, and beyond. What the nature of the "steam communication" we so earnestly desire to have should be, I am not in a position to judge, having no knowledge of the safe minimum earnings of a railway, or the maximum powers of a tram service. Whatever experts decide the traffic proved justifies, it is safe to say will be acceptable to the people of both town and country; nor, so far as Parramatta is concerned, will serious exception be taken to either of the proposed points of junction with the Western line, viz., Westmead or Parramatta. The essential point is that Parramatta should be en route, for although as a matter of choice preferring that the town should be the junction, it is clearly recognised to be a minor point that must not be made to jeopardise the best interests of the Hills people, upon whose prosperity so much of our own depends.

The remark of a Minister for Public Works to a deputation from Parramatta that a serious objection to the junction there was that land would have to be purchased by the foot in town instead of by the acre at Westmead is more imaginary than real, for the greater part of the town route may well be the boundary of the Parramatta Park and Asylum reserves, while in the case of a tramway no resumption need take place.

In view of all these facts, therefore, it is earnestly hoped that this Committee will fully recognise the very serious wrong that would be done to a large and important town without advantage to anyone without, by forcing its natural business elsewhere. That the town and country are to all intents and purposes one in this matter I trust to have shown. A few recent defections in favour of the Carlingford extension can only be taken to have occurred on the principle that a bird in the hand is worth two in the bush.

1558. Have you been over the line from Clyde to Carlingford? I have not been over it, but I know it well from having crossed it at different points.

1559. You know that that line has been offered to the Government for £25,000? I understand so.

1560. You are aware that the line cost £110,000? Only by report.

1561. Do you think it would be wise under the circumstances for the Government to purchase the line? Upon that point I think I can hardly be considered a competent judge, but I should suppose from the traffic which would accrue from the race-course and the meat-works that on that score alone it would be worth the money. The continuation of the line to Dural would, as I have endeavoured to show, inflict an injury upon some 9,000 persons.

1562. Supposing the line were purchased it would at once give communication as far as Carlingford;—do you think it would induce any settlement? I have no doubt but that it would induce settlement, but it would do so in no greater proportion than would a line from Parramatta. The district of Carlingford is undoubtedly a fine district, but so is the whole of the Hills district. The Carlingford district has no special advantages over the other spots there.

1563. Do you think the extension from Carlingford to Dural now under consideration would in any way rob the Northern line of traffic? I do not think there can be any doubt but that it would do so. The average distance between the two lines would not be more than 2 miles. The Carlingford line would depend entirely for its revenue upon its southern side, the northern side being already served by the Northern line.

1564. You think that the Westmead line being further west would serve a greater number of people? Yes, distinctly. There can be no doubt of it to those who know the lay of the country and the population distributed over it. The line from Westmead would go through the centre of a district which is not at present supplied with railway facilities.

1565. If a line were constructed from Westmead to Castle Hill and on to Dural would not a sum of money require to be provided for land resumption? Upon that point I know nothing. I assume that there would be no greater proportion of resumption in that case than there would be on the other route. There would be resumption in either case.

1566. Do you know whether those persons through whose land the line would pass would be inclined to give the required land to the Government free of charge? I have heard that stated by different orchardists, but I think the statements should be taken with a large amount of caution.

1567. It would be only those persons some distance out who could be expected to give their land? That would be about all.

1568. I suppose there would be resumption for pretty well the whole distance? So far as I am aware, going out of Parramatta there would. But it is not absolutely necessary to go across land which would require to be resumed in the town, because there is the park, and you could make either its western or eastern boundary the railway route almost right along the park.

1569. Would there not be an encroachment upon the park, and would there not be a great objection to that? Not on the part of the Parramatta people.

1570. Are you fully satisfied of that? I feel satisfied that the Parramatta people would be quite willing to allow the boundaries of the park to form part of the railway.

1571. The railway would really be on park land? Yes.

1572. Having in view the possibly large amount required for land resumption in the case of a railway, are you inclined to look more favourably upon a tramway? I cannot well answer that question. Our desire is to get just exactly that which, and no more than the traffic justifies. If a tramway would not carry the produce which would be brought in or taken out, then we should consider ourselves entitled to a railway. But that is a point we do not wish to press. We prefer to leave it entirely to the judgment of experts.

1573. You know that the construction of a railway even without land resumption would be a much more expensive work than would the putting down of a tramway? Undoubtedly.

1574. You know enough of the district to say whether a tramway could be constructed without any land resumption? I think so. For instance, could it go along the main road, for I understand that with perhaps one small exception somewhere near Castle Hill, where it would be necessary to get round Rogan's Hill, the tramway line could follow the road entirely.

1575. How far north of Parramatta is the country within what you might call Parramatta influence? As a matter of fact, we do trade right out to the Hawkesbury.

1576. As far north as Wiseman's Ferry? Yes.

1577. What possibility would there be of the 9,000 persons being ruined if the line did not come through Parramatta? We are receiving and distributing centre for the whole of the district. We have been in that position from the birth of the town and the district itself. Certain relations have sprung up, between
the

the town and the district, and it would be very difficult thing to ignore them. The people of Parramatta have spent somewhere about one or one and a half million, (that is capitalising their assessments at 4 per cent.) in view of the trade which they do with the district, and if you cut that trade off, or make it easier for that trade to go somewhere else than to Parramatta, you do the town an injury to that extent. J. W. Hill.
25 Jan., 1898.

1578. Suppose a line from Carlingford to Dural were an absolute fact, a large portion of trade would still go into Parramatta, would it not? No doubt a portion of it would go there, but it would be a very much smaller proportion than goes there now. The line would take away some of our natural traffic. When I speak of natural traffic I refer to traffic which tends down where the fruit-growers find it easier to go on account of the easy grades. Parramatta focusses all these downward grades. If you continue the line to Dural you sweep along the inner edge of the basin, and you would therefore rob Parramatta of a great deal of the traffic.

1579. There are a good many orchardists round about Baulkham Hills? Yes.

1580. Would the produce of those orchards go on to the Rosehill line if it were purchased by the Government, or would it come straight in to Parramatta as at present? I think that from Baulkham Hills the traffic would go into Parramatta. It would begin to steal away from us at Castle Hill.

1581. What would be the extreme point from which the traffic would still come into Parramatta, even if the line under the consideration of the Committee were carried out? It would cut everything off from Parramatta beyond Rogan's Hill.

1582. You would get all the traffic south from Castle Hill? Yes.

1583. For a distance of how many miles along the road into Parramatta? For a distance of about 8 miles.

1584. What additional traffic do you suppose would come on to the tramway if it were constructed? In constructing a tramway you would go right through the centre of the district instead of going on one side of it. You would have a feeder on each side of the line about 8 miles in breadth, whereas the proposal before you would give you a feeder on only one side, the other side being already supplied with communication.

1585. You know the Kellyville district pretty well? Yes..

1586. Of late years it has developed into rather an important fruit-growing district? Yes.

1587. Does the whole of its produce come into Parramatta? That I am not prepared to say; a great proportion of it does, I know.

1588. You think the construction of the line from Carlingford to Dural would be inimical to the best interests of Parramatta? I think it would be a gross wrong to the town.

1589. Have you looked at the matter from what I may call the public interest, *i.e.*, the point of paying in the near future? It cannot possibly pay in the end to injure a district of 9,000 persons for the sake of 2,000 or 3,000 persons on the outskirts. The proposal before the Committee may be a big advantage to a few persons who would benefit by resumption and a railway against their door; but it cannot pay the country to crush out the business of so many persons, as I have indicated.

1590. Would the taking away of the fruit traffic from Parramatta, between Castle Hill and Dural, have such a terrible effect as you indicate;—remember you would still get the fruit for a distance of about 8 miles along the road? I grant you that; but a certain amount of trade is necessary to keep Parramatta going, *i.e.*, to pay the interest on the outlay, and the trade you indicate would not be anything like enough to do that. You must remember that it is not only fruit traffic which Parramatta obtains, but the banking and professional business of all sorts, for which the Hills district now depends upon the town. There is a certain amount of trade which we do with them in return, Parramatta, as far as fruit is concerned, being only a receiving depôt. The whole of the benefits of the returns from the fruit trade come to us at present. If you make it easier for that business to go elsewhere, it will of necessity go there, and to that extent Parramatta will be injured.

1591. If a tramway were constructed as you suggest, do you think it would lead to a large influx of population? I do not think there can be any doubt about its increase. The present traffic may be gauged from the coaches; and there is an objection to travelling by coach, first, on account of the dust and confinement, and also on account of the cost. Those conditions would hardly obtain in the case of a tramway.

1592. How far is the road metalled out of Parramatta, going north? I think as far as Castle Hill, a distance of about 8 miles.

1593. The roads are bad when you get further north? When I went out there it was springtime, and the roads were in good repair.

1594. Are they impassable in wet weather? Not to my knowledge.

1595. *Mr. Farnell.*] You spoke of Mr. Hunt having moved an amendment at some meeting in connection with affording railway communication to the district;—do you recollect whether at that time Simpson's line had been constructed to Carlingford? Mr. Hunt wrote against the Rosehill line, and in favour of the Dural-Westmead line, on the 26th April. He then said:—

I think I can show that the Westmead is preferable to the Dundas route, as it will benefit a district equal in fertility, and very much larger in area. The greater part of the Dundas district is within a reasonable distance of the Northern line, and should their proposed line be constructed, at least half of the country between it and the Northern line would naturally be a feeder for the latter, only leaving a narrow strip on that side as a feeder for the proposed line, and at the same time leaving most of the country on the western side, which really requires a railway, as distant from it as they are at present. On the other hand the Westmead route would pass through an equally important district, as large as Dundas and Rydalmere combined. Would not any sensible person, in constructing a railway between two parallel lines—the land being equal—rather construct it equi-distant between those lines than from 3 to 5 miles from one, and 12 to 14 from the other. Should any other route than Westmead be adopted, the greater part of Castle Hill, and all of Baulkham Hills, Kellyville, and places beyond, will be compelled to cart their produce, as at present, to Parramatta.

1596. But, as a matter of fact, the section to Carlingford was not in course of construction then, nor had the Bill authorising its construction been passed by Parliament? It was agitated for.

1597. It was agitated for as an alternative to the Westmead-road;—it was against the proposal for the survey of the Rosehill route that Mr. Hunt wrote at that time? I cannot speak as to that. The proposed Simpson's line was then under consideration, but how far it had progressed I do not know.

1598. In what way would the 9,000 persons of Parramatta, to whom you have referred, help the railway or tramway, if one were constructed thence to Dural? Simply by their business relations, and the business relations of 9,000 persons must be quite as considerable as those of the 3,000 persons whom the proposed line is intended to serve. If you adopt the tramway proposal you would not only get the business of the 3,000 persons but you would get the business of the 9,000 persons, and you would lose the business of the latter by the adoption of the proposed railway. 1599.

- J. W. Hill. 1599. If the Westmead line were adopted the whole of the trade would go right through to Sydney? Yes.
- 25 Jan., 1898. 1600. The necessity for transhipment at Parramatta would be done away with? Yes.
1601. Suppose a tramway were constructed, it would perpetuate the inconvenience which now exists? No. I trust it will be clearly understood that, as far as we in Parramatta are concerned, we want the Hills people to have that to which they are entitled, whether it be a tramway or a railway. So far as the goods going through Parramatta to Sydney are concerned, that does not much matter to us. The greater facilities the Hills people have to get to market the more prosperous they will become, and so long as you do not take their trade away from Parramatta, we should benefit by their prosperity in the trade done between us. We have nothing to do with the fruit trade, except that it has to go through the town, and the fact of its going through to Sydney direct would not injure us in any way whatever.
1602. Do you think that if the fruit went through direct from Parramatta to Sydney, the relations of the Hills people with Parramatta would still be maintained? Undoubtedly.
1603. You do not think that the fact of the fruit going through to Sydney would lead to the Hills people doing their marketing there? No more than they do now.
1604. You do not think the fact of their sending their carts into Parramatta, and that the carts would have to come out empty if they did not bring commodities for their use, has anything to do with the question? I do not think so. People would come to the shortest and most convenient spot to do their business,—that would be Parramatta, if it were *en route*.
1605. You said the proposed line would rob the parent lines of the traffic which they now receive? Yes.
1606. Supposing the residents were prepared to pay a local rate in addition to the rate charged upon the parent line, would not that do away with your contention? That is a matter upon which I am not prepared to express an opinion. I do not know what the charges would be, or to what extent they would compensate the Railway Department.
1607. You have made an estimate of the probable traffic upon the line from Westmead to Dural? Only as regards the Parramatta trade with the Hills. I have been round to all the business people of Parramatta and have collected the quantity of mixed goods which is sent out to the Hills. The traffic amounts to about 3,500 tons a year. That is sent out from the Parramatta to the Hills district. What is sent in I do not know.
1608. Do you think the Kellyville district would be served by the Westmead line? I can only take their word for that, allowing them to be their own judges. They say that that line would serve them well, and that the proposed extension would not serve them.
1609. They are distant 9 or 10 miles from Parramatta? Some of the residents there would be from 7½ to 8 miles.
1610. Supposing a railway ran within 3 miles of the centre of Kellyville, do you not think that would be a reasonable distance from which to expect traffic? As I have explained to Mr. Roberts, I know very little of the geography of the district. I do not know what difficulties there might be in the way of getting produce to the railway.
1611. You do not know what road access there is? I know nothing about that.
1612. *Mr. Black.*] Do you think that Parramatta has a lien for all time upon the trade of the Dural and Castle Hill districts? It has as much a lien on those districts as Bathurst has upon its surroundings, or as Sydney has upon New South Wales.
1613. Do you not think that in the course of natural development Parramatta will lose that trade in any case? If development takes place in the direction of the proposed extension.
1614. I am referring to the natural development of the place—to the growth of new centres throughout the Hills district? In that case I do not think Parramatta would lose the trade.
1615. Supposing there were a growth similar to that which we have seen on the suburban line; suppose that suburbs like Ashfield and Burwood were to spring up;—would they not become themselves the centres of trade and supply? I do not think it would be possible for any suburbs to become equal to their parent, Parramatta. Any growth outside Parramatta it seems to me must tend to augment the business done with Parramatta.
1616. Persons who formerly went into Sydney to spend money on Saturday night, for instance, now spend it in the suburbs; do you not think a similar state of things may exist as between Castle Hill and Parramatta;—might not the trade from Parramatta be taken away by the creation of new centres of supply? I do not think Parramatta will suffer any more than Sydney has suffered from the growth of suburbs. The trade comes originally from Sydney; it is distributed from Sydney. The larger the surroundings of Parramatta the greater will be its distributions. Parramatta is a further distributing point. I do not think it will be possible for the districts outside Parramatta to grow without doing Parramatta good. I do not think you can get away from the natural centre.
1617. Only by the construction of a railway, you think? You may do an unnatural thing, which we protest is being attempted now.
1618. *Chairman.*] You have spoken of the Hills district;—does that include Galston, Kenthurst, and Kellyville? Yes.
1619. Where does the produce of Galston go at present? I speak subject to correction, but I understand that it comes to Parramatta. I understand that the business of the whole of the watershed gravitates to Parramatta.
1620. Do you know where the Arcadia produce goes? No.
1621. And except from hearsay you cannot say definitely where the Galston produce goes? No.
1622. Where does the Dural produce go? A great deal of it at present goes to the Northern line, either to Thornleigh or Pennant Hills.
1623. Do you know where the Kenthurst produce goes? No.
1624. Where does the Pennant Hills produce go? Undoubtedly to the Pennant Hills station. The view we take of the trade of the district is that we have lost a considerable quantity through the Northern line, and what we ask is that we may not be deprived of the balance left to us.
1625. Is not this the correct view of the question: That Parramatta originally did trade over the Hills district, but that the construction of the Northern line brought railway communication so close to it that you lost, at all events, some of the new outward trade of Arcadia, Galston, Kenthurst, Dural, and Pennant Hills, and that now you are making a protest against a further curtailment of your trading operations which you believe would result from the extension from Carlingford to Dural? That is exactly our position.

Reginald Bowman, M.B., M.R.C.S., Chairman, Parramatta Progress Association, sworn, and examined:—

1626. *Mr. Farnell.*] How long have you been resident in Parramatta? Nine years.

1627. You are acquainted with the proposal before the Committee? Yes.

1628. You have had an opportunity to look into the figures submitted by the railway officers? Yes.

1629. Have you a statement to make in regard to the proposal? I have heard the latter part of the evidence of Mr. Hill, with which I fall in. I suppose, therefore, there is no need for me to repeat the points he has brought out; but there was one special point to which I do not know whether he referred, and it was this: That the whole district between Simpson's line and the Northern line is already well served, from the fall of the ground and from its nearness to railway communication. The growers in that district have no trouble in landing their fruit in sound condition at the Northern line, and by that means into market. So that at present the proposed railway will not be of any additional use to the railway system. I am speaking now of the district from the river up as far as Carlingford. Another point I wish to lay stress upon, is that a line proposed to run in or any way near Parramatta would not injure the Dural people. It would practically be as convenient for them, while it would confer a benefit upon the large business population of Parramatta. We do not wish to deprive the Dural or Galston people of anything to which they are entitled. All that we ask is that the railway which should serve them should also serve us. There are at Kellyville between 14,000 and 15,000 acres of unalienated land. This now has a comparatively small population. In the course of another ten years, when this land is opened up, it will sustain a large population which will not in any way be assisted by the line proposed. Kellyville, I take it, has a strong lien upon the Castle Hill route, because if, later on, population justifies it, a feeding-line might be run out from the centre tramway-line, or light railway-line whichever it may be deemed expedient to construct.

1630. Could not that be done in connection with the proposal before the Committee? Yes; but you would be taking the natural surroundings from Parramatta, and you would be isolating a considerable population—leaving a large centre without the means of transacting business in a natural way.

1631. Have you considered the proposal to construct a line from Westmead to Dural, in all its aspects? Yes; I have considered it as a better alternative than Simpson's line. As far as Parramatta itself is concerned, of course it will be more benefited by a line running right into the town.

1632. A tramway or a light railway? That must rest with the Department. If a tramway is constructed it must have rolling-stock suited to run on the railway line, the same as is done on the Camden line, so that there may be no transhipment of goods; that is an all-important point.

1633. Suppose that is found to be impracticable? Then we must fall back upon the Westmead line.

1634. Suppose you cannot get that? Then we must go without.

1635. You would leave things as they are? What could we do.

1636. You are not inclined to afford the people of Dural a means of railway communication except through Parramatta? We do not grudge them their means of communication, but, while not interfering with them, we want to benefit the district as much as possible.

1637. You maintain that it is a more expeditious way of getting railway communication for the district to advocate the Parramatta route as against theirs? Yes; because it serves a larger population and a larger trade in every way.

1638. How are the business relations of Parramatta to be kept up if the railway runs through to Sydney? Exactly as at present.

1639. You think the hills people will still come to Parramatta to do business? They will go to the nearest point at which they can get their things.

1640. You do not think they are likely to go right through to the Sydney market to get the things they require there, since they will be sending their produce direct? Some will, perhaps, do so, but I do not think the majority will as long as they can get properly served at a nearer point and have conveniences to get there.

1641. You do not think that the fact of people having to come to Parramatta at the present time with their carts, and to unload their fruit there has anything to do with the business relations of Parramatta? I do. I think it is a large help to the district. They must make use of their vehicles, and they take back what they want.

1642. Is it not natural to suppose that when the Hills people have facilities for getting right through Parramatta direct to the metropolitan market, Parramatta will be deprived of their trade? It will rest with the business men themselves. If they are keen enough in their business to supply public requirements, then as long as they are not placed at too great a disadvantage they will get the trade.

1643. What do you consider a reasonable distance to be within reach of railway facilities? It depends upon the lay of the country. If you have a rough steep hill to cross, a mile or two miles might more than equal four or five miles in another direction upon good roads. It is a question of haulage.

1644. You know the route of the proposed line from Carlingford. Suppose a deviation were made so that the Kellyville people, instead of being $3\frac{1}{2}$ miles from the line, were brought within $1\frac{1}{2}$ mile of it, do you think that would meet the difficulty in any way, especially seeing that the line would also be taken closer to Castle Hill? Then you would be at the disadvantage of lengthening the line to serve those particular people, and you might make the distance to Dural too far. I do not know whether it would pay to add to the expense of construction to that extent.

1645. I suppose that while you contend that the business people of Parramatta must have their interests considered, you are also willing to allow the interests of the fruit producers to be considered? Certainly.

1646. Do you know where the Galston and Arcadia people now send their produce? They send it to the Northern line; but they still do business with Parramatta.

1647. And the Kenthurst and Dural people? They strike in at Pennant Hills; but the Dural people are also doing business in Parramatta. They are not cut off from us yet, although they have the Northern line. There is both passenger and goods traffic to Parramatta from that point.

1648. Do you think the proposed railway will act as a feeder to the main line? After it leaves Castle Hill.

1649. To what extent would the Northern line and the Parramatta line be affected by the taking away of traffic? The traffic would reach the Parramatta line eventually; but the Northern line would lose some of the traffic which now goes to Pennant Hills. A proportion of that would go to Carlingford. Of course, a great deal would depend upon the state of the roads.

R. Bowman,
M.B.,
M.R.C.S.

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- R. Bowman, 1650. The charge from Hornsby to Sydney is 1d. a case, and from Parramatta to Sydney 1d. a case;—if the Galston and Arcadia people are prepared to pay an extra 1d. or 2d. a case for facilities to reach market, what becomes of your contention that the Northern line would be robbed? I doubt whether the Government would get interest upon the line, whereas it could be clearly shown that it can get interest in the case of the Westmead line. Mr. Wright, I think, gave you the particulars.
1651. Would not those particulars be equally applicable to the Rose Hill line? Beyond a certain point, but not until you reached that point. From the river to either Pennant Hills or Castle Hill there is not the local business and trade that there is between Westmead and Castle Hill. That business will not be got except by a line from Parramatta or Westmead.
1652. You see from the map that the Westmead line leaves Kellyville at a greater distance from railway communication than does the proposed line from Carlingford to Dural? Yes.
1653. Do you propose to meet that difficulty by a branch line from the Westmead line to Kellyville? That, I think, is the idea.
1654. Do you think there would be sufficient traffic to warrant the construction of such a line? That depends upon the population which may settle there.
1655. As far as the actual routes are concerned, the proposal under consideration would suit the Kellyville people better than would the proposed line from Westmead to Dural? No; I do not think it would suit them as well. It would take them away from their centre of business, and that would be a distinct disadvantage.
1656. But the nearer station would be upon the Carlingford and Dural line? According to the wall map; but I do not know whether the Westmead line as shown there takes the course agitated for by the local people.
1657. Have you any statistics? A committee was appointed to go round the district and ascertain the actual amount of trade and business done. Mr. Wright handed in the particulars to the Committee.
1658. You think those particulars will be borne out by results if the line you suggest is constructed? Yes; I think that, if anything, the traffic has been under-estimated.
1659. Had you any connection with the agitation in Parramatta for what has been called "steam communication"? That term was adopted so that we might not tie the advocates to either a railway or tramway. It was thought that otherwise the question of a railway might not be considered.
1660. It was not adopted with the object of preventing the Dural and Kenthurst people from getting railway communication? Certainly not. The object of the Parramatta people is not to interfere in any way with the Dural or Galston people. We simply want to share in the advantages they get, and not to be cut out of them.
1661. Are the Dural people in favour of the Westmead line, or do they favour the line which can be got most expeditiously? I think they have committed themselves to the extension of Simpson's line. I believe they are supporting that.
1662. They would readily accept the Westmead line, you think? I think there can be no doubt but that it would serve them in exactly the same way.
1663. What is your opinion of the district from the standpoint of health? All the Hills district from Dural to Wiseman's Ferry, until you begin to fall to the river, is a healthy district. There is beautiful scenery and surroundings upon all sides. People will be induced to go there for the pleasure of living.
1664. It is a great sanatorium for the whole district? Yes; it is well elevated, and if there were railway conveniences the district would eventually be a keen competitor with the North Shore heights.
1665. You think that railway facilities will lead to the speedy erection of suburban residences there? Yes; the conditions are better as regards health. The district is further from the sea, and the north-easters are not felt there as they are on the North Shore heights.
1666. *Mr. Wright.*] You know the district intimately? Yes.
1667. Which line do you think would go through a greater area of good country—the Westmead line or the Carlingford extension? The Westmead line.
1668. There is more good land to the west than there is on the Rosehill line? There are comparatively few good orchards down from Carlingford to the river; they are either worn out or not planted.
1669. The Westmead line would open up a larger area of good country? Yes.
1670. *Chairman.*] You are here to-day as the representative of the Parramatta Progress Association? Yes.
1671. Their views are those which you have put before us to-day? Yes. The Progress Association was authorised at a public meeting to place its views before the Committee, and I have done so to the best of my ability to-day.

THURSDAY, 27 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

John Thorpe, Parramatta, sworn, and examined:—

J. Thorpe. 1672. *Chairman.*] You are a resident of Parramatta? Yes.

1673. *Mr. Black.*] Have you any evidence you specially wish to bring before the Committee? Nothing further than this, that I have always been a strong advocate of a tramway line to serve the whole of the district concerned. I do not think a heavy line could be made to pay for many years to come.

1674. Where would you have your tramway terminus? At the Parramatta station. I think the line should run through Baulkham Hills and Castle Hill to Dural, and that at the "Baulkham Hills Hotel" there should be a branch off to Kellyville. I have driven over the road scores of times.

1675. You think a tramway line would pay? It would serve the whole of the Hills district and would pay from the jump. It would serve from thirty to fifty years. 1676.

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1676. Do you think a tramway would be adequate to the requirements of the fruit traffic? I do.
1677. What is the opinion of the people in the districts concerned? In the Hills district, of course many persons are anxious to get a railway, if it can be got; but there are many who say that if they cannot get a railway they will have a tram-line. If they had been contented with a tram-line they would have had one before now. It is only some persons who want to get rid of their land who have all along been agitating for a railway.
1678. Would not the construction of the tramway involve a double handling of fruit, to its disadvantage? I think far too much has been made of that. I do not think the damage to the fruit would come to more than 1d. a case, if it were properly handled; but I believe a plan could be devised by which the whole of a truck-load of fruit could be transhipped from a tramway-truck into a railway-truck in a very few seconds, without the slightest damage to the fruit.
1679. Have you formed any opinion as to what would be a fair charge to make for the carriage of fruit over such a line as you suggest? Ten years ago I went thoroughly into those details with Mr. Hugh Taylor; but I forget now the conclusions at which we arrived. I think that if a tramway line were constructed, fruit could be brought down to Parramatta and sent on to Sydney for a very much less sum than it costs at the present time.
1680. You think that the construction of a tramway would lead to an increase of occupation? Yes; the occupation of both cultivation and residential sites.
1681. You think there would also be a considerable increase in the number of residents in the district? I do think so.
1682. That would give the line a better chance of paying? It would.
1683. Have you formed any opinion in regard to the proposal before the Committee? I think it would be a great waste of public money. It would serve one place only, and the fringe of some of the others. It could not serve Castle Hill or Kellyville. A tramway line, such as I indicate, would not only serve the district named, but it would serve a portion of Seven Hills. In regard to many of the districts, it would pay persons better to take their goods to Parramatta, by cart, than to take them to the proposed Simpson's line. Then again, I believe a tramway line could be constructed to suit the whole district for about one-half the money that a heavy railway line would cost, from the junction with Simpson's terminus.
1684. *Mr. Farnell.*] Would the tramway you suggest serve Kellyville? Yes; with a branch from "Baulkham Hills Hotel."
1685. Do you know whether the proposed line from Westmead would serve Kellyville? I do not think it would.
1686. The railway referred to the Committee would probably be in a better position to serve Kellyville than would either of the other suggested routes? I do not think the proposed railway would serve Kellyville under any circumstances. In order to reach that line from Kellyville you would have to cross the Cattai Creek. It is a most difficult road to pass over under any circumstances, to say nothing of taking fruit over it. You could not get across there by any decent sort of road.
1687. But there are bridges across the Cattai Creek and roads giving access to the Castle Hill-road? There are roads, but none of the orchards bounded by the Windsor-road would be able to get to that line at all. It would be only those persons on the other side of Cattai Creek who would be able to get to it. It would pay most of the people in the district better to take their fruit to Parramatta. Only a very small portion of the people of Kellyville would be served by the line you mention.
1688. If a railway were constructed from Westmead you would also require to make a branch line from it in order to serve Kellyville? I think it would be madness to attempt to construct a heavy line to the Hills.
1689. Do you think a tramway line could be so constructed as to make it possible to use the tramway rolling stock upon the suburban line? You would have to have special trucks constructed for the conveyance of fruit from the Hills. That would meet the difficulty. You would require engines such as those which go to Woollahra now on the tram-line. I think they would serve the district well.
1690. Do you think a system like the Camden tram-line would serve the district? I think it would serve remarkably well. It would serve the district for many years to come. I believe the line would pay interest on the outlay from the jump.
1691. *Mr. Hassall.*] How long have you known the Parramatta district? Fifteen years.
1692. You know the locality through which the proposed railway passes? Yes.
1693. Do you know the country from the terminus towards Dural? Yes.
1694. And you also know the country from Parramatta out to Dural? Yes.
1695. Which line would you say would serve the greater population—a tramway line from Parramatta or the proposed line from Carlingford? There is no comparison between the two proposals. A tram-line would serve the whole district. Simpson's line would serve only one district and the edge of the others.
1696. Supposing a tramway were on the same gauge as on the railway system, so as to avoid trans-shipment of produce, you think the district would be served as well as it could be served? Yes; but I am afraid that rolling-stock such as would be required for a railway would be too heavy for a tramway line for the Hills district. It would be far better to tranship the goods than to haul heavy trucks upon the line merely in order that the same trucks may be run upon the suburban line.
1697. Could they not run the light trucks on the heavy line? I was told not some years ago. I was told that the light trucks suitable for haulage through the Hills district could not be hauled on the heavy lines without damage to the trucks.
1698. On national grounds you advocate a tramway from Parramatta in preference to the proposed extension of Simpson's line? Yes; very little land would require to be resumed. I recommend the tram-line on account of the smallness of cost of construction, the low cost of working, the absence of stations, and because the line would pay from the jump. It would serve a much larger population and would do four times the service which could be rendered by an extension of Simpson's railway.
1699. If you, as a business man, had an opportunity to invest money in the extension from Carlingford, or in the proposed tram-line from Parramatta, you would invest it in the tram-line? Yes.
1700. Which is the better tract of country—that along Simpson's line, or that along the tramway you suggest? For residential purposes the land upon the tramway line is decidedly better. It would also be better for cultivation generally. The return upon the tramway would be five to one as compared with the railway.

Joseph William Withers, Parramatta, sworn, and examined :—

J. W.
Withers.
27 Jan., 1898.

1701. *Chairman.*] You are a resident of Parramatta? Yes.
1702. *Mr. O'Connor.*] You were at one time mayor of Parramatta? Yes.
1703. How long have you lived there? I have been connected with Parramatta for fifty-six years.
1704. You know the country well then? Every inch of it.
1705. You are acquainted with the proposal before the Committee? Yes.
1706. What do you think of it? I concur with a great deal of what the last witness has said, more particularly in regard to the tramway line. If I had money myself to put into such a thing, I would certainly go in for the tramway line as a speculation of my own, because I believe that the work would pay from the jump. I blame the Parramatta people for not taking the Westmead line when they had a chance of taking it. I believe the tramway line would serve more people, and be more beneficial to the country generally. If you had a tram-line you could stop more frequently to pick up or set down passengers. I am sure that a tramway line would lead to a large increase of population in the district. It is a good climate and growing district. I know of several persons who have left the district on account of the inconvenience of getting into town. I very often go to the district to stop there from Saturday until Monday, and I myself am personally acquainted with the inconvenience attending the present means of getting to and fro. The orchardists also are at a great disadvantage in getting their produce into market. It takes a man a whole day, starting early in the morning, to get into Parramatta with fruit, and to get home again.
1707. Is there much land available for settlement in the district? Yes; the land is suitable for the production of almost anything. There is good timbered land round about Dural.
1708. Do you know the Rosehill line? Yes.
1709. What do you think of the country upon that line? The line touches only the borders of the orchard country. It is all good land; but at the same time, if I had my choice I would put money into the tram-line, and I am sure I should make something out of it.
1710. What you have said in favour of a tramway line from Parramatta would in no way affect the proposed purchase of the Rosehill line by the Government? Personally, I would not purchase it. If the railway were offered to me for £25,000 I would not look at it. I would much sooner have the tramway line.
1711. Suppose the traffic between Sydney and Rosehill justified the taking over of the line? I am sure that the tramway I suggest would pay more than that railway would pay.
1712. *Mr. Hoskins.*] Where do you propose that your tramway should start from? From the present railway station; it would run down O'Connell-street.
1713. How would you get from the railway station down there? I am not an engineer; but at the same time I think the work could be done—in fact, the line could not be taken any other way, unless the line went down Smith-street.
1714. You are not in favour of a tramway line from Westmead? Some years ago I was in favour of a railway from Westmead, and I think it is a pity that the line was not constructed.
1715. How would you propose that the tramway line should go from O'Connell-street? It would cross the new bridge.
1716. Would that bridge carry a train? Under present conditions I should think it ought to carry a tramway.
1717. Suppose it was called upon to carry an engine of from 50 to 100 tons? I would not advocate the use of that sort of engine upon a tram-line. I should think that motors such as are run on the Sydney tram-lines would be quite heavy enough.
1718. Do you think those motors would be able to haul trucks loaded with metal, manure, or large quantities of fruit over the severe grades of the line you suggest? I do not see why they should not; upon the line which comes up to Parramatta from the steamer wharf I have often seen four or five truck-loads of produce.
1719. But that is a level road almost all the way? Yes.
1720. When you got out of Parramatta, would you take the tramway line along the main road? I should think so, where possible.
1721. But would you not be compelled to resume a good deal of private land in order to avoid sharp curves? I do not think so.
1722. Do you think an ordinary goods truck could be worked on a tramway such as you suggest, with sharp curves such as would be necessitated if you followed the road? No.
1723. Then how would you carry your loading? There would require to be special trucks.
1724. How would you carry manure and other traffic of that sort upon the proposed tramway? I should not think that there would be any more weight in a truck of manure than in a truck loaded with fruit.
1725. Do you think the ordinary goods truck with straight axles could be worked on a tramway with sharp curves? I cannot express an opinion as to that.
1726. You are aware that the Camden tramway departs from the roads and goes through private land? Yes.
1727. There there are no sharp curves, and ordinary goods trucks can be run? I am aware of that; but I do not think it would do to run ordinary goods trucks on a tramway from Parramatta to Baulkham Hills; I think they would be too heavy.
1728. You have no data upon which you have founded an estimate of the probable traffic? No; but I know from the orchards that there would be a large traffic upon the suggested tramway line.
1729. *Mr. Humphery.*] Is this your evidence as to a tramway;—that the Galston, Dural, and Hills districts generally would be equally served if a tramway were constructed from Westmead, as if it were constructed from Parramatta, but that it would be better from Parramatta if the terminus were Parramatta railway station? Yes.
1730. Would there be any difficulty in constructing a tramway from Westmead to Dural? It would go through more private property than the other line.
1731. Would there be more difficulty in constructing a tramway than a railway? There would be no main roads to run on; you would have to buy property.
1732. You heard Mr. Thorpe's evidence as to a branch line to serve Kellyville;—do you think that would be necessary? Yes.
1733. For how many miles would it be necessary to carry that branch? It would depend upon the way the country is opened up; at present you would have to go about 2 miles.
- 1734.

1734. You think the district would not be as effectually served by a railway from Carlingford to Dural? I believe it would not be.

1735. You think that Kellyville, at all events, could not be served by that line? I do not think it would.

1736. Baulkham Hills and Castle Hill would be some distance away from it? It would serve some parts of Castle Hill.

1737. The tramway you suggest would serve a larger district than it would be possible for the proposed railway to serve? Yes; and it would be more convenient for traffic—passenger traffic particularly.

1738. Would the tramway, as shown on the wall map, serve Kellyville any better than would the proposed railway? Yes; it would be more convenient for the people there. But after all I do not think it would make much difference, as far as Kellyville is concerned. I had in my mind the Baulkham Hills, Castle Hill, and Seven Hills people.

1739. *Mr. Trickett.*] With regard to the engineering questions asked you by Mr. Hoskins, you do not wish to set up your opinion against the opinions of the officials of the Department? No; I certainly would not put my opinion against that of engineers.

1740. You know that the estimated cost of a tramway is considerably less than that of any of the other schemes proposed? I should think so.

1741. The cost of a tramway, according to the official estimates, would be £28,000, while the next cheapest line would be that from Pennant Hills to Dural, at a cost of £33,000;—you think that the tramway would be the cheaper and the better line? I think so; it would be more convenient, and much cheaper.

1742. The evidence of the Department is that all loading on the tramway would have to be taken off at Parramatta, and would have to be put there on to ordinary railway trucks;—what do you think of that? I do not see any objection to that course, provided the fruit were properly handled.

1743. *Mr. Wright.*] I believe that some four years ago a private company sought Parliamentary authority to construct a tramway to Castle Hill? Yes.

1744. That Bill was thrown out? Yes.

1745. It was for a tramway from the Parramatta Railway Station to Castle Hill? Yes; in conjunction with the present tramway.

1746. You know that the survey then made showed that there would be no difficulty in connecting with the railway system at Parramatta? Yes; there was no difficulty of that kind, but the Parramatta company wanted us to take over the present line running from the steamer wharf up to Parramatta. I believe that is what broke up the movement.

1747. Is it within your knowledge that the whole cost of construction from Parramatta to Castle Hill, according to the advice of scientific men, would not exceed £15,000? I think that was about the estimated cost.

1748. The tramway was to be capable of carrying the ordinary rolling-stock of the railways with light engines? Yes.

1749. The proposal was that the tramway should be worked with light tank engines? Yes.

1750. The promoters proposed that the ordinary rolling-stock of the railways should run over the line? Yes.

William Alfred Brodie, property auctioneer, Parramatta, sworn, and examined:—

1751. *Mr. Hoskins.*] You are a resident of Parramatta? Yes.

1752. Do you wish to make any statement embodying your views upon the proposal now before the Committee? I think that from my long experience in the district I should be in a position to give some information concerning the district, which would be of service to the Committee.

1753. What is your occupation? I am a property auctioneer, and during the time I have been in business I have sold about £1,500,000 worth of property in the district. I am therefore able to speak as to the value of property there. I know that a number of properties upon the Rosehill line were sold for residential purposes, and would have been so utilised had the line been open. The non-completion of the line, and the fact that the completed portion remains closed, has driven purchasers to other localities. If the line were opened and extended I am satisfied from my experience and from inquiries which I am constantly having that the country served would be very largely utilised as a place of residence by people from the city.

1754. Do you think then that the country beyond Carlingford, on Simpson's line, would become more largely settled if the railway were extended? I am quite satisfied that it would. People who go on to the Northern line go there to get altitude, but they find that they cannot get land unless it is of a poor character. They are compelled to go there for health's sake. If the proposed railway were made they would go on to that line because it runs through some of the best country in the county of Cumberland.

1755. You do not think the opposition to the proposed line should have any weight, seeing that it would intercept good land, and attract settlement? I most undoubtedly think that the line ought to be constructed.

1756. Do you think its construction would injure Parramatta seriously? Whatever damage could be done to Parramatta was done years ago by the Northern line, and by the bridge erected near the Gasworks over the Parramatta River. If the Parramatta people catered properly for the public the public would go there just as readily as they go to Sydney. The people in the district are so closely identified with the town that I do not think the extension of the Rosehill railway would make any difference to the business relations of Parramatta.

1757. Do you know the Pennant Hill quarry? Yes.

1758. Do you think the proposed railway would lead to a great deal more stone being taken out of that quarry? Judging from the traffic to the wharfs and adjacent municipalities, I certainly think that would be the case.

1759. Would not the quarry then be in a position to supply metal more cheaply than it can be supplied from the Southern quarries? Yes.

1760. Is settlement increasing in the districts intersected by the proposed line;—have people occupied land there recently? The district is really stationary from the want of railway communication. Once it were known that the railway would be opened, buildings would be very soon run up. A great deal of land has been sold there in anticipation of the construction of the proposed railway.

1761. Between Carlingford and Dural? Yes.

1762.

J. W.
Withers.

27 Jan., 1898.

W. A. Brodie.

27 Jan., 1898.

- W. A. Brodie. 1762. The promoters of the Clyde-Dural railway were led to commence its construction in consequence of representations made to them that the district would be settled? There is no doubt about that.
- 27 Jan., 1898. 1763. It is said that the proposed line would go away from the best parts of the district such as Kellyville? A part of Kellyville would not be further than 2 miles from the line, and a new road has lately been opened up from Castle Hill to Kellyville. In my opinion, it will be necessary in time to come to construct a tramway to Kellyville from Parramatta.
1764. We have been told that the land on the proposed railway is inferior to the land more to the west? I do not think that is the case.
1765. *Mr. Humphery.*] You see the route of the proposed railway on the wall map? Yes.
1766. Will you point out what portion of the district would not be served between the dotted red line and the Northern line? The country running in the valley between Rydalmere and the western side of the ridge.
1767. What would be the greatest distance between the Northern line and the proposed tramway line? About 5 or 6 miles.
1768. Therefore the greatest distance of any occupied land from means of communication would be not more than 3 miles? That is so; but in some cases people might be compelled to go a long way round. The distance from Parramatta to Castle Hill would of itself be about 6 miles.
1769. Would the tramline you indicate serve an equal number of people with the proposed extension of the Rosehill line? I do not think people would go to live there if there were only tramway communication. I do not think they would care about shifting from the tramway into the train. The tram would suit Parramatta, but it would not suit persons who wanted to go into Sydney every day.
1770. You think a tram service would not suit the fruit-growing districts beyond Baulkham Hills? It might suit them to get their produce to that station, but it would not suit the district from a residential point of view.
1771. You think it is more important to provide a service to suit the residents than to provide for the removal of the produce? I do think so at the present time. As I have already said, I think a tramway must eventually go to Kellyville from Parramatta.
1772. Do you think a tramway as shown upon the wall map would do? Yes; with a branch line to Kellyville.
1773. But in order to properly serve the entire district, you think the railway should be extended from Carlingford to Dural? Yes.
1774. And in regard to the route of a tramway you prefer a line taken along the Windsor-road to Baulkham Hills, with a branch to Kellyville? Yes. I might also point out that there is a goods siding at Clyde, and it is possible that the connection of the Rosehill line with the Northern line at Pennant Hills would relieve that line of some of its traffic, and take it direct to the Clyde station.
1775. How do you think the proposed line from Westmead to Castle Hill, and on to Dural, would serve the fruit-growing district? I do not think it would serve them as well as the extension from Carlingford.
1776. Why? Well, in the first place, there is not the land available on that side that there is on the other side, and you must also remember that the railway at Seven Hills would be only 3 miles away from the Baulkham Hills orchards.
1777. Is the available land to which you have referred suitable for fruit-growing? Yes; as suitable perhaps as any part of the county of Cumberland.
1778. Where is the available land to which you are just now referring? On the heights of Pennant Hills.
1779. Can you explain why persons went out to Kellyville for land, in preference to taking the available land to which you refer, in close proximity to railway communication? Land could be obtained at Kellyville for £20 or £30 an acre. In the other direction persons were asking £100 per acre.
1780. Would that be the explanation with regard to the available land at Dural? Yes; there would be a great enquiry for land there, supposing there were access to a railway; but at present the place is at a comparatively great distance from a railway station.
1781. The only reason the available land to which you have referred has not been used for fruit-growing purposes is to be found in its price, you think? Yes; and in its distance from a railway station. I have sold land for residential sites there as high as £200 an acre.
1782. Not recently? No.
1783. *Mr. Wright.*] Do you think persons merely look upon the construction of the proposed railway as a means of speculation, or do you think they are agitating for it because they think it will really be of service to the district? I think it will be a means of bringing people to the district.
1784. Do you regard the proposed railway as a ready means of bringing produce to market, or as a means of disposing of land for residential purposes? The residents who would go there would have small orchards, and they would have a certain quantity of fruit to send to market as well as the bigger man.
1785. You think the Sydney merchant who bought land there for residential purposes would also use it for fruit-growing? Yes.
1786. Do you know the land about Brush Farm? Yes.
1787. Is it good land? Very good land.
1788. Do you know the land at Hornsby Junction? Yes.
1789. That is also fairly good land? Yes, in parts.
1790. The land at Pennant Hills is also fairly good orchard land? On one side of the line.
1791. Has there been any great rush for residential sites along the heights on the Northern line? The poorness of the land has restrained persons from purchasing in that direction.
1792. Have not the Government offered some good land there? I am not aware of any particularly good land having been offered for sale there by the Government. It is mostly poor sandy soil.
1793. Where would you locate the best land in the district? I should say that the best land in the district would be on the ridge between Pennant Hills and Baulkham Hills.
1794. The high land upon the Northern line has been upon the market for sale, and no one is going there;—if the land is required in the district for residential purposes, how do you account for that? I do not know of any cheap land there.
1795. What would you call cheap land? I do not know of any land cheaper than £60 an acre. I have buyers for anything cheaper than that, and I cannot get it.

1796. Supposing the proposed line were constructed, at what price do you suppose people would be able to get land there? At from £25 to £30 an acre. I know of land which could be sold there at that price; and persons would give that price for the land if they had railway communication. W. A. Brodie.
27 Jan., 1898.
1797. Could you sell me 50 acres of first class orchard land there at £25 an acre. Yes.
1798. Is the dearness of land the sole reason why the high land on the Northern line has not been utilised for residential purposes? The quality of the land has also to be considered. Persons want residential sites, but they want good land at the same time.
1799. Is there not good land at Carlingford and Beecroft sold recently by the Government? I am not aware of any good land sold by the Government.
1800. You advocate the construction of the proposed railway, and you think that ultimately there will be a tramway connection between Parramatta and Kellyville? Yes.
1801. Supposing there were no chance of that connection, which line would you recommend? I should advocate a direct line from Parramatta in the direction of Castle Hill.

Peter Parfitt, Manager, Bank of New Zealand, Sydney, sworn, and examined:—

1802. *Mr. Humphery.*] You are manager of the Bank of New Zealand in Sydney? Yes. P. Parfitt.
27 Jan., 1898.
1803. Are you familiar with the correspondence which has taken place in regard to, and the expenditure in connection with the construction of, the railway from Clyde to Carlingford? I am not very familiar with the details or with the earlier correspondence. I have been in Sydney only two years.
1804. Have you seen Mr. Chapman's evidence? Yes.
1805. Briefly, are you in the position to corroborate that evidence from the documents in your possession? So far as my records go that evidence is correct. I have not seen Mr. Chapman since he gave it, and I was away from Sydney at the time. Although in the main it is correct as far as I know, I could neither confirm nor contradict any special item.
1806. Is the Bank prepared to sell to the Government the railway with all the rights in connection with the Acts known as Bennett's Act and Simpson's Act for £25,000? Yes.
1807. The railway, inclusive of all the rights in the Acts to which I have referred, has been offered to the Government for that price? Yes.
1808. Would the £25,000 include the whole of the land resumption? The offer was to include everything within the railway fences. Whether there is anything outside of them or not I cannot say at this moment.
1809. Everything from the Clyde station to Carlingford? Yes.
1810. Including the Rosehill platform? Yes; and all the other platforms and stations, together with all the land contained within the railway fences.
1811. Everything owned by the Bank of New Zealand in connection with the railway? Everything belonging to the railway proper. There may be land outside the fences. I am not sure on that point. If there is any land there it is not included.
1812. I assume that the offer is still open to the Government? Yes.
1813. *Mr. Hoskins.*] I suppose you know that the Government Engineer for Existing Lines has represented that the bridge over the Parramatta River forming part of Simpson's line would require to be strengthened considerably to make it safe for traffic; also that the wooden bridges and culverts on the line would require to be screwed-up, painted, and put in proper repair? I was not aware of that. I understood that the Commissioners were quite satisfied with the railway. I thought the Commissioners had passed it.
1814. Does the Rosehill Race-course belong to the Bank of New Zealand? No; the Bank has nothing whatever to do with it.

Walter Alexander Smith, District Engineer, Roads Branch, Department of Public Works, sworn, and further examined:—

1815. *Chairman.*] You hand in a document in reference to the Pennant Hills quarry? Yes. It is as follows:— W. A. Smith.
27 Jan., 1898.

Department of Public Works, Sydney, 27 January, 1898. 27 Jan., 1898.

DURAL RAILWAY INQUIRY.—PENNANT HILLS QUARRIES.

As requested by the Parliamentary Standing Committee on Public Works, I have the honour to report that, after a careful inspection this afternoon of the Pennant Hills quarries, I would estimate the amount of basalt suitable for road-making and concrete works, now available from the present faces of the quarries, at 52,800 cubic yards; while by working the quarries to a lower level of 10 feet—as the present lessee is about to do—another 57,600 cubic yards of excellent stone is available; so that, with the quarry appliances now in use, 110,400 cubic yards of stone in the solid, or about 220,800 cubic yards of stone broken to a 2½-inch gauge, could be raised. The present market value of this stone, delivered on roads in the vicinity at 8s. 6d. per cubic yard, would, therefore, be £93,340. Assuming that 200,000 cubic yards of this stone was, in course of time, carried by the railway for a distance of, say 15 miles, at the current rate of 1s. 6d. per ton,—taking 24 cubic feet to a ton,—the total amount receivable in railway freight would be £16,875. This statement refers only to what may be called the "old quarries," the extensive faces of which are at sight and have been heavily worked for the past 68 years; but beyond this the quarries possess further possibilities of development.

WALTER A. SMITH, M.Inst.C.E.,
District Engineer.

1816. Do you regard the quarries as valuable? They would be if there were some easier means of getting the stone away.
1817. How far are they from Simpson's line? About $\frac{3}{4}$ of a mile. If a wire tramway were built—and I understand that the present lessee intends to do that if the railway is constructed—otherwise the distance would be much longer, the elevation of the railway is so much greater than that of the quarry that it would be necessary to go a long way round.
1818. Does the lessee intend to dump the blue metal into the trucks on the railway? It would be brought up by the wire tramway and dumped into carts at about an equal elevation with the railway. The metal would then be carted about $\frac{1}{2}$ a mile along the road.
1819. Would $\frac{3}{4}$ of a mile of line enable the lessee to dump the metal into trucks which would run on to Simpson's line? If there were $\frac{3}{4}$ of a mile of line he could, by means of a wire tramway, dump the stuff from the quarry into the trucks. It would not be an expensive operation providing there were no engineering difficulties; but as to that I cannot speak, because I have not been over the route. An expenditure of £500 would bring the metal within about $\frac{1}{2}$ a mile from the railway by road. 1820.

- W. A. Smith. 1820. At the end of the wire tramway would it not be possible to construct a running-road from trucks to join Simpson's line? So the lessee informs me; but I have not been over that route.
- 27 Jan., 1898. 1821. Would £1,000 make the railway accessible to the quarries? I could not say; I have not been over the road, and there may be gullies intervening. I am informed that there will be no difficulty in carting the stone; but a cart-track is a very different thing from a railway-track.
1822. *Mr. Hoskins.*] Could stone be used for ballast on the railways? Yes; it would be a perfect stone for ballast.
1823. What is the average price of bluemetal in the county of Cumberland? Eight shillings and sixpence on blue-metal roads within 10 miles of the place.
1824. It is nearly as cheap as the blue metal from other quarries? It is very nearly as cheap now; but it is the long cartage which is killing it. The lessee is about 6d. ahead of other merchants; if the cartage were done away with he could compete favourably with all the other blue metal merchants.

FRIDAY, 28 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHREY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

William Charles Hill, Chairman, Rosehill Race-course Company (Limited), sworn, and examined:—

- W. C. Hill. 1825. *Mr. Trickett.*] You are chairman of the Rosehill Race-course Company? Yes.
- 28 Jan., 1898. 1826. What is your share-list? I could not say from memory. It is a limited company, having an office and a secretary.
1827. Carried on in conformity with the Companies Act? Yes.
1828. The object of the Committee in calling you was in order that you might give us some idea as to the permanence of the Rosehill Race-course property and recreation-ground? I can see no reason why it should not be carried on for some considerable time to come—no reason whatever.
1829. Is the race-course carried on of itself, or in connection with surrounding property? Entirely by itself.
1830. It has nothing to do with the railway, or with any surrounding property? It has nothing to do with either; it stands on its own bottom.
1831. Taking the property upon the basis of a race-course only, has it been payable? It rather more than holds its own. It has not paid dividends for some time; but it did so formerly.
1832. How long has it ceased to pay a dividend? It is five years since it paid a dividend.
1833. Independently of race-meetings, the Eight-hour demonstration is held upon the ground? Yes; and several other meetings of that kind. We let them have the ground for almost a nominal sum.
1834. How many race-meetings do you hold a year? About thirteen.
1835. Have you any contract with the Government as to the charges upon the railway from Clyde to Rosehill? There is a contract.
1836. Is it for any term, or from year to year? I do not think there is a contract for any special time; I presume it will be from meeting to meeting.
1837. Do you have to make a fresh arrangement from time to time? No; the original arrangement stands good.
1838. Out of the passenger fares the Railway Commissioners get a certain proportion, and you get another proportion? Yes.
1839. Could you tell us what the traffic is worth? I could not say. Our secretary would be able to give you every information of that kind.
1840. Supposing the railway became the property of the Government, and they gave you nothing out of their receipts for passenger fares, would not that seriously affect the income of the race-course? I do not think it would do so seriously. It would affect it in some measure.*
1841. Have you a copy of the last balance-sheet? No.
1842. I suppose you hold the race-course in freehold? It is freehold; but it is not fully paid up yet.
1843. What is its value at the present time? I could not say.
1844. Have you recently taken into consideration the advisableness of cutting up the race-course and selling it in allotments? We have not thought of doing that up to the present time.
1845. You do not contemplate that? Not that I am aware of.
1846. The proposal has never been submitted at a meeting? Never.
1847. You attend meetings more in the capacity of chairman of the company than in any other capacity? Only in that capacity; in no other. Mr. O'Mara is the secretary.
1848. I suppose the property without the railway would be almost useless? I would not say that altogether, because people could get from Granville to the race-course very readily. They did so formerly. There were race-meetings before the railway was opened there.
1849. Still, the absence of the railway would affect the attendance largely? It would, certainly.
1850. I suppose your company has no interest in the platforms adjoining the race-course? None whatever.
1851. They are used by the railway authorities as a means of landing people at the race-course? Yes.
1852. You have no title to anything outside your fences? No.
1853. There are a number of entrances and exits on to the platform;—are they controlled by any right or deed? Not the platform.

1854.

* NOTE (on revision):—The only amount the Rosehill Race-course Company receive out of the railway fare is a sum, which is added by them to the amount agreed upon by the Railway Department and the Rosehill Railway proprietary, to be charged for the conveyance (only) of the public to the course.

1854. No right has been established in that direction? Not that I am aware of. I do not know whether the platform was built by the Rosehill Race-course Company or by the Government. The ground was a race-course before we purchased it, and was used as a race-course. W. C. Hill.
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1855. At present, as far as you know, the two things, the railway and the race-course, are managed by a mutual agreement for mutual benefit? Yes.
1856. When did the Rosehill Race-course Company buy the race-course? They purchased it about eight or ten years ago.
1857. Very shortly after the railway was constructed? Yes.
1858. Have you been making any improvements upon the course lately? We always keep it in first-class order.
1859. Do you intend making any further improvement? We do not require any further improvements. Those already there are very extensive.
1860. The present improvements are sufficient for the purposes of the course? Quite sufficient.
1861. *Mr. Hoskins.*] There is no permanent arrangement between the race-course company and the Government in respect of the fares to be charged? There may be; but I do not know of any.
1862. Supposing the Railway Commissioners and the company disagree, it will be quite possible for the company to arrange with the owners of the steam-boats on the river, and on the tramway, to convey people to the course, independently of the Government railway? They could do that.
1863. At a lower rate? I do not know what the rate would be; but they generally run such trips at low rates.
1864. *Mr. Humphery.*] Have the Railway Commissioners any right to in anyway interfere with the operations of the present owners of the railway? No.
1865. Can you say whether the tickets issued in Sydney include the right of entrance to the race-course? Persons purchase a railway-ticket without purchasing an entrance-ticket to the race-course. The ticket issued in Sydney may or may not include entrance to the course. There is a charge for the platform and an entrance-fee besides.
1866. The charge of 1s. 6d. to Rosehill, for instance, would not include the right of entrance? No.

Henry Harris, sworn, and examined:—

1867. *Chairman.*] You are one of the directors of the Rosehill Race-course Company? Yes; I am a shareholder, and I am also a director. H. Harris.
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1868. How many committee-men have you? I think there is a committee of five.
1869. Do you meet regularly? Yes.
1870. *Mr. Trickett.*] You heard Mr. Hill's evidence? Yes.
1871. Do you agree with it, as far as it went? Yes, to a great extent.
1872. Is it the intention of the company, as far as you know, to preserve the race-course as a recreation-ground? Decidedly. I may say that I have an interest of 9-20ths of the whole—nearly one-half.
1873. Do you regard it as a satisfactory investment? I have seen more satisfactory investments, and also many much worse.
1874. Do you think there is a good future before Rosehill? I do. Rosehill is to Randwick what Caulfield is to the Melbourne course.
1875. At what does the property stand in your books? My interest is about £30,000.
1876. Do you know what the property stands at in the company's books? No; the secretary could give you that information.
1877. You heard Mr. Hoskins suggest to the last witness that if the Government took over the railway arrangements might possibly be made for persons to be brought up by river and tramway to the course? No doubt it could be done, but it would be a very isolated idea, and for this reason that you could not get accommodation to put a sufficient number of persons on to the ground? Prior to the railway being constructed steamers used to run there from Sydney; also persons who wanted to visit the course went as far as Clyde and took a conveyance over to it. I do not think it is at all probable that such a thing as you suggest would occur.
1878. Excepting on public holidays and race-meetings, the race-meetings generally begin between 12 and 1? Between 1 and 2 o'clock.
1879. Under those circumstances would it be reasonable to suppose that persons would take steamers from the head of Darling Harbour to Parramatta, and would go thence by tramway seeing that they could be conveyed there and back by railway for eighteenpence? No; I do not think the idea is feasible.
1880. What has your attendance been on your best race days? I could not say, but we have had a very large attendance.
1881. Have you ever suggested that the race-course should be cut up into building allotments? Never; that was never my intention.
1882. Do you think it probable that that will be done at any time? I do not think it is at all probable.
1883. Do you think that the holding of the race-course, as at present, for race-meetings and occasional large popular gatherings is the best use to which it could be put? I do, decidedly. There is no doubt that with regular communication the ground would be availed of for many things besides race-courses.
1884. Apparently at the present time the means of access to the course are of a somewhat complicated character, it being a matter of arrangement between the Government and Rosehill Company? Do you think that if the whole thing were in the hands of the Government it would be more advantageous? I think so. I think there would be more traffic. I think numbers more would travel.
1885. Every time you want to utilise the race-course a regular form has to be gone through with the Government? No; there is a stated arrangement between the company and the Government. The Railway Commissioners run the trains to suit the company, and after the race-day they settle with the company.
1886. Do you think that if trains were run daily upon the line to Rosehill, and also on the Carlingford line, the regular running would lead to the more frequent use of the Rosehill race-course as a place for large gatherings? I cannot answer that question; we are subject to the conditions of the A.J.C. We have to conform to their allotment in regard to race-days.
1887. Your fixtures are subject to the approval of the A.J.C.? Yes.

H. Harris. 1888. Is there anything you would like to add to your evidence? I should like to impress upon the Committee that if there were constant communication there would be far greater traffic upon the line than there is at present, independently of the race-course. My impression is that many people would reside there, especially trainers of horses. If there were regular communication they could come to town whenever there were races elsewhere. If they were to take up their residence at Rosehill at the present time they would be isolated, and they could only travel on race-days. It is necessary that trainers should be able to travel on any day. If there were fixed hours for daily communication the traffic would greatly increase.

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1889. Is the whole property, including the grandstand and enclosures, in thorough order? Yes; I suppose it is one of the most compact race-courses in any part of the world. It is a miniature Randwick. A large amount of money has been spent there. We have to do all that is necessary to keep the place in proper repair and up to the times.

1890. *Mr. Hoskins.*] Do you think it probable that if the Government acquired the railway the Rosehill Race-course Company would endeavour to exact better terms from them for the conveyance of passengers? I do not think it is at all probable. Most of the men connected with Rosehill are business men, and are quite satisfied to do their business on fair lines. I think the present rate is a fair thing. I do not think the company would want anything more than they are getting.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and further examined:—

J. Harper.

1891. *Mr. Roberts.*] Have you had an opportunity to read the evidence tendered to the Committee since you were last here? I have seen references to the evidence in the newspapers, but I have not had time to go through it.

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1892. You have no statement to add to your former evidence? No; I made my first statement as full and explicit as I could make it.

1893. From what you have since heard and read about the question are you inclined to modify your opinion in any way? No; I do not form opinions to modify them as you suggest. I feel that I have an important mission entrusted to me, and when I make a report upon a question of this kind I exhaust every source of information. In this instance the result of that information has been laid before the Committee.

1894. You have not seen the evidence of Mr. Chapman? No.

1895. You will see Mr. Chapman estimates that if the line were taken to Dural there would be a return of £3,150;—that is an increase of £1,000 upon the estimate you put before the Committee? I do not think the Company would want to sell the line if they could realise the revenue indicated by Mr. Chapman.

1896. But the Company labour under a certain disadvantage in working the line as compared with the Railway Commissioners;—have you considered that? Yes; if they could get a gross revenue of £3,150, it would not be bad interest, paying all the costs they would have to incur upon £25,000, the sum for which they offer the line. I should characterise the estimate you mention as a ridiculous one.

1897. Even if Mr. Chapman's estimate were realised there would still be a loss of over £1,000 a year? I have not worked out those details, but I am sure that the estimate would leave a loss. My report practically traverses Mr. Chapman's estimate upon the Carlingford portion. He allows £745 as the traffic of that section. My estimate is £337 10s. Mr. Chapman assumes that the people of Carlingford would pay 1½d. a case more for the carrying of their fruit on that line than they have to pay for the carriage of their fruit from Thornleigh, Pennant Hills, Beecroft, Carlingford, or Parramatta, or any other points on the existing lines. He assumes that they would pay 1½d. from Carlingford to Clyde, and a further 1d. from that point to Sydney.

1898. Your argument is that they would not do so? That is my argument.

1899. *Chairman.*] The question is whether you could get across on to the Northern line where the penny rate to Sydney obtains for less than the 1½d. contained in Mr. Chapman's estimate? I must leave the Committee to draw their own conclusions as to that. The Committee have been over the district, and they are acquainted with the relative distances. They are also aware of the principal centres of fruit-production.

1900. *Mr. Roberts.*] Are you bearing in mind the undulating character of the country? Every circumstance.

1901. We are informed that in wet weather the roads are almost impassable? I have never come across a road yet which was impassable in wet weather.

1902. Have you also considered the loss of time involved in carting fruit to the Northern line,—have you considered that the fruit could be taken in a few hours by the proposed railway, where, as in many cases, it takes more than a day to convey it to the Northern line? I have considered that so much that I have given credit for every case of fruit from the district coming on to the proposed line.

1903. Are you aware that there are blue-stone quarries in existence a short distance from the Carlingford station, on Simpson's line? Yes.

1904. Have you estimated any revenue from the carriage of metal? No; I am satisfied that the quarry at Pennant Hills could not possibly compete with the natural quarries on the South Coast. I know that even at Emu Plains we could not compete with the blue-metal merchants conveying the metal from Shell-harbour by water.

1905. Do you not think that if the owner of the quarries were to put down a tramway-line connecting the quarries with the line at Carlingford he would be able to compete with the Southern quarries? I am sure he could not. I know that from our own experience. We do not carry very much metal now by rail—that is, anywhere about the suburban areas. Besides that the quarries are absolutely different in their nature to those on the South Coast. In the one case you have to contend with clay bands and things of that kind, whereas in the Southern quarries there is one mass of stone. It is hardly likely that the Railway Commissioners would supply the suburban district from the Illawarra quarries if they could have obtained the supply advantageously from the Pennant Hills quarries.

1906. Since you were last here the Committee have had before them several witnesses who have expressed their willingness to pay 2d. a case, and even 3d. a case to Sydney, rather than convey their produce by cart to stations on the Northern line? I am never surprised to hear things of that kind. I am quite used to it now. You hear a similar thing in connection with all new lines.

1907.

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1907. Can you point to any instances where promises of that kind have not been carried out? I do not know of a single branch line where a promise of that kind has been kept. We thought that the Berrigan people would adhere to their promise to pay 2s. 6d. a ton. Now they are approaching the Commissioners to get an extension of the main line rates. In the case of every other branch line we have built, within from a week to three months after opening we have received representations against local rates. The Berrigan people are the last example, they say they are going to send all their wheat to Victoria unless we charge them through rates.

1908. What would the through rate be in their case? Twopence a ton, instead of 2s. 6d. I have no doubt in that case a large number of persons could be found in the district, who expressed their willingness to pay 2s. 6d. a ton. I do not mean to say that the people of that particular district are worse than are the people of any other district. But I am speaking generally from an experience extending over a great many years.

1909. It does not follow that because persons ask for a concession of that kind the Commissioners will grant it? It depends upon circumstances. In the case of the Berrigan line they would not grant it. In some other cases they might find it expedient to grant it.

1910. *Mr. Hoskins.*] Then, according to your statement, the Berrigan line will be a failure? It will not be a failure.

1911. Would your observations in regard to the Pennant Hills quarry apply to the delivery of stone at Granville, Homebush, Strathfield, or Burwood? They would apply. As far as most of the western suburbs are concerned, they are to-day being supplied from the southern quarries; and you must also have regard to this fact—that where those suburbs are supplied with metal from those quarries it is rail-carried. It is a question of distance, and of the carriage of the stone by rail from one line to another.

1912. But does not much of the stone come by vessel? It is transhipped at Darling Harbour, and carried to the western suburbs by rail. The rate would be practically the same as that from the suggested point on the Carlingford line.

1913. It has been said by the Engineering Branch that if the Government took over Simpson's line the bridge over the Parramatta River would require to be considerably strengthened, and that the culverts and wooden bridges would require to be screwed up and painted;—that being so, and having regard to your estimate of traffic, do you not think that £20,000 would be quite enough to pay for the line? I said on a former occasion that I thought that if the line could be bought for £25,000, or as much less as it could be obtained for, it would not be a bad speculation. As regards the strengthening of the bridges, I presume that is a question of maintenance.

1914. *Mr. Humphery.*] Are you quite clear that within a very reasonable time 3 per cent. upon £25,000, that is £750 a year, would be earned between Clyde and Carlingford? Yes, including the earnings of the Rosehill line. Apart from that there is the question of maintaining existing interests, which mean more or less suburban traffic, and other traffic over the main line.

1915. What is your estimate of the probable annual cost of a line between Clyde and Carlingford? It could be worked cheaply by the shunting engines from Clyde. It is hard to say what the exact cost would be. The engines engaged in shunting at Clyde would do the service to Carlingford; I do not think the cost would amount to more than £200 or £300 a year. You might add to that maintenance at the rate of from £30 to £40 a mile—say about £250. I should think that £500 would cover the cost of working.

1916. Beyond that amount all the earnings between Clyde and Carlingford would be profit, and would go against interest? Yes.

1917. What are the prospects of the line? I do not regard them as very bright. I fancy the estimate I have given of the traffic is a very full one.

1918. Your estimate of the working expenses and maintenance being £500 a year, you would be left with £646 towards interest, which, at 3 per cent. on £25,000, would amount to £750? Yes. I might add that, from the fact of the line being in close proximity to the city, and in connection with the main line, unless we were able to continue working the traffic under favourable circumstances upon the section as far as it goes, we might suffer an indirect loss in traffic upon other suburban portions. For instance, there is the traffic in connection with the Rosehill Racecourse which, of itself, represents a certain amount of profit; and there would also be the traffic from the Australian Kerosene and Oil Co.'s works, and from the Sandown meat-works.

1919. Does your estimate of £500 include salaries of station-masters, and expenses of that sort? There would be no station-masters upon that line.

1920. Your idea appears to be that it would be a satisfactory transaction to take over the constructed railway to Carlingford for £25,000, and not to construct the proposed extension to Dural? Yes. I wish to emphasise this as my personal opinion—that the great value of the line would be that a portion of it would be in touch with the Rosehill Racecourse, with the Australian Kerosene and Oil Co.'s works, and with the Sandown meat-works. I do not attach much importance to the rest of the line.

1921. Will you give a reason for that? I think the traffic obtained will be very limited.

1922. Take the proposed tramway from Parramatta to Baulkham Hills;—do you think that that would serve the district up to Dural and Galston, as well as would the proposed line from Carlingford? I do not think it would serve the Galston district as well. I observe that one of the newspapers represented Kellyville as $5\frac{1}{2}$ miles away from the projected line; Kellyville extends 10 miles, and a portion would not be more than $2\frac{1}{2}$ miles away. The Galston district would not be benefited by any tram-line to Kellyville. They would continue to send in to Hornsby.

1923. But if the line were extended on from Kellyville to Dural, would not that serve the district? Under certain circumstances, the freight charges being favourable, the Galston traffic would come to Dural. No matter how Dural was approached, the Galston traffic would come there if the freight charges were not too high.

1924. Even if Dural were approached by a tramway, and not by a railway? If it were approached by a tramway the charges would have to be higher than if it were approached by a railway, because it would cost more to work the traffic. It is a mistake to suppose that by having a tramway you can work the traffic cheaply.

1925. What is the difference, approximately, between the annual cost of working a tramway and a railway? It would depend upon the volume of traffic you have to shift. I do not know what a tramway in this case would mean. If it meant a 1 in 18 or a 1 in 20 grade, it would be a very expensive process to shift the number of cases for which I have given credit. But I do not know what sort of tramway is projected.

- J. Harper.
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1926. In a general way, would the cost of maintenance and the extra working expenses of a tramway be greater than those of a railway? Decidedly, with heavy loading to shift.
1927. Therefore, although the initial cost might be less, the annual charges would be much more for a tramway than for a railway? Yes.
1928. Would your estimate of the probable earnings of a railway from Carlingford apply equally to a tramway? The earnings would be the same. We should lift the same traffic as far as that is concerned, but the working expenses would be more. As I mentioned just now, we should work the traffic on the Carlingford line with the shunting engines from Clyde. There are four or five of them employed there, and we should work them upon the Carlingford line in their spare time.
1929. Can you see no prospect of the estimated earnings upon the proposed line being increased within a reasonable time? I do not know how they could be. The district might grow twice as much fruit as it does, but the fruit would not pay working expenses.
1930. You think you have fully estimated the traffic as far as produce is concerned? I have considered every case of fruit going by railway, steamer, and road at the present time.
1931. You have estimated the traffic at so much less than the local people say they are prepared to pay—the discrepancy is very large;—could you not modify your evidence upon that point—for instance, fruit-growers at Galston and Dural say they would be prepared to pay 2d. or even 3d. a case, but you have not allowed anything approaching that? I have allowed 1d. a case, which is practically double what they are paying to-day. I am sure that with the alternative of a 1d. rate against a 2d. rate, and with a better service such as they would obtain on the main line, the preference would be given to the main line and the lower rate.
1932. How do you make out that the 1d. is double what they are paying to-day? I have given them 1d. from Dural in addition to the present charge.
1933. We are told that the cost now is over 2d. by road? I daresay you have often heard persons say that it costs about £3 a ton to carry wool from 40 to 60 miles, but immediately we wish to charge them 5s. a ton they begin to cry out.
1934. Your estimate of 1d. a case is as high as your experience will permit you to place it at? Yes.
1935. As to the quantity you have estimated as coming to the proposed extension, you have taken account of all produce within reasonable limits;—is that so? Yes.
1936. You think you have made, if anything, an excessive allowance? Yes; I have allowed 150,000 cases, and that represents every case of fruit which is rail-carried from any point.
1937. Your estimate may be regarded as a maximum one rather than otherwise? Yes.
1938. *Mr. Hoskins.*] Do you think that if the Government took over the line as far as Carlingford and opened it, a considerable fruit traffic would be attracted to the Carlingford station? I do not think there would be much. I have not credited it with much, because at Carlingford and Ermington there is a disposition still to go to the river; and between Carlingford and the existing main Northern line the disposition would be to go the main line in order to take advantage of the better service offered by the main line communication.
1939. *Mr. Trickett.*] Let me direct your attention to Questions 230, 259, and 261. You will see that Mr. Chapman, the manager of the Clyde to Rosehill Railway line there gives reasons why the line has not paid. It would appear that the Company have never been able to work in with the Railway Commissioners. They could not carry goods along this short length of railway at a price which would pay. For instance, the Commissioners said that they might bring the traffic so far and no further, and that directly they brought it to the Clyde junction they would want their rights;—does not that seem a very feasible position? What the Company would like would be half our earnings over that length. They would like us to work it, and for the use of it they would like to get half the charges we impose for the sending of engines and shunters to do the work. The Act provided that they were simply to get an extension of the main line rate as their proportion of the charge upon the traffic hauled over the line. There was not enough to warrant a daily service at the existing main line rates over the line, and the Commissioners imposed an arbitrary charge for shunting. The proprietors of the Rosehill line would like to get one-half of our charges. That is really the whole position.
1940. They say that in present circumstances a lot of traffic is diverted down the river which would otherwise come by railway? Quite so. I think you can realise that the Commissioners are not likely to run upon the line at a nominal rate in order that goods might be brought to their wharf to the detriment of the main line. We would not alter our position of to-day. That is to say, we should not play off one section of the line against another.
1941. But there is some traffic upon the river? Yes; some of it goes up Duck River, and there is other traffic there. Hudson Brothers get timber there; but I cannot conceive of any circumstances under which we should get it.
1942. You think, then, there is no force in Mr. Chapman's statement? None.
1943. In reference to the answers to the questions to which I have referred, including the reference to the cost of conveying wheat from the wharf to Mr. Brunton's mill, what do you say is the position of the matter? It was a question of carrying Mr. Brunton's wheat from Sydney or from the wharf on the Rosehill line, on the Parramatta River. In the one case the rate mentioned by Mr. Chapman is 6d. a ton from the Parramatta to Clyde, and in the other case the rate is half a crown a ton from Darling Harbour to Clyde. In each case the occupation and use of the rolling stock would be the same. I will add this—that owing to the precarious nature of the service the charge for hauling would probably have been greater from the wharf on the Parramatta River than if the traffic were hauled by ordinary trains from Darling Harbour to Clyde.
1944. So that given that the Government acquired the railway at the price at which it is offered, the traffic suggested by Mr. Chapman as likely to be carried from the Parramatta River to Clyde would not be remunerative traffic? Not upon those terms. If Mr. Brunton wished the wheat brought there, the Commissioners would probably request him to pay the Darling Harbour rate.
1945. *Mr. Clarke.*] Is the metal from the Pennant Hills quarries a good material for making roads? Yes; it is a good metal.
1946. It was used for many years upon the roads before cheaper metal could be obtained? Yes.
1947. How is the metal brought-up from the Kiama quarries? Ninety-five per cent. of it is brought by sea. Of course, we bring our own metal for ballast up in our own hopper trucks.

1948. What is the rail charge from Kiama? About 4s. 3d. a ton. It is brought by sea for about half a crown. J. Harper.
1949. What would be the cost of carriage from the Pennant Hills quarries to the proposed line, some-
where about Carlingford? I cannot say; the station would be some distance from the quarries; the
railway charge would be about 2s. 8d. a ton. 28 Jan., 1898.
1950. That is less than the charge from Kiama? Yes; but it costs about three times as much to get the
stone at Pennant Hills as it would cost to get it at Kiama. When the Railway Commissioners go 50
miles from Sydney to get their supplies, you may depend upon it that they have studied the question.
1951. In the event of the proposed line being constructed, do you think the produce from Castle Hill,
Baulkham Hills, and Kellyville, would be attracted to it, or would it go to Parramatta? I think the
Baulkham Hills traffic would still go to Parramatta. The Castle Hills traffic, up to a certain point, would
go to the proposed line, but it would be dependent largely upon the freight charges.
1952. I suppose you know that within the last few days the Australian Kerosene and Oil Company's
works have been closed? I have seen the statement made, but it has been denied by one of the men
who is principally interested.
1953. If the works were closed, the estimate of traffic you have given would require to be reduced? I think
you will find my estimate will be realised, and that supposing the works to have been closed they will be
opened again.
1954. *Mr. Lee.*] In your estimate of traffic, you struck a rate of 1s. 6d. a ton upon manure from Clyde to
Dural;—what would be the through rate from Sydney to Dural? 2s. 9d.
1955. What would be the rate from Sydney to Pennant Hills? 1s. 10d.
1956. Why were not arrangements made to run traffic along Simpson's line to Carlingford? I fancy it
would not pay to do so.
1957. When the line was finished had the Rosehill Racecourse Company any rolling stock or engines? No.
1958. As a matter of fact, did they not go to the Railway Commissioners to endeavour to make arrange-
ments with them? It was a matter of arrangement after the line had been built.
1959. Did they endeavour to make an arrangement with the Commissioners to work the line as far as
Carlingford? I do not think they did; I have never heard of it. I have been through the correspondence
and I saw no indication of it.
1960. Do you know that the Commissioners refused to do so? I have been through the whole of the
correspondence and I saw no suggestion of it.
1961. In the event of the line going as far as Carlingford only, would it not intercept a certain amount of
traffic which now finds its way to Ermington and to the Northern line? It would intercept a certain amount
of traffic which finds its way to Ermington for which I have given credit, and it would to a limited extent
divert traffic from the existing main Northern line, but it would not amount to much, because I cannot
conceive of any set of circumstances which would create as good a service between Carlingford, on the
Simpson's line, and Clyde, as the service, which is an improving one, on the main Northern line.
1962. If Simpson's line became the property of the Commissioners, would they open it for traffic as far as
Carlingford? It would be opened, but it would be run under conditions which suited us. I regard the
extension beyond Rosehill as practically an excrescence upon the whole thing.
1963. Under any circumstances the line is certain to be opened to Carlingford sooner or later, if not by
the Commissioners by other persons; looking at the matter from that point of view, there is a certain
amount of traffic to be secured;—would it not be better for the Commissioners to secure it? No one
could work the line more economically than could the Railway Commissioners. They are working the
portion of the line to the south of the Parramatta River to-day, and it would take, perhaps, an additional
half-hour's time per trip to work the rest of the line with shunting engines.
1964. Supposing the promoters of the line obtained Parliamentary sanction to extend it to Dural, would
not that extension operate disadvantageously to the Northern line? No; I have not the least fear of
that.
1965. But if the line went into the heart of the fruit-growing district, would it not pick up freight? If
the Company were prepared to stand a continuous loss upon working expenses, decidedly it would.
1966. You think you hold the key at Clyde? We try to do so.
1967. *Chairman.*] Would it be possible for any fruit district at the rates you are charging for fruit to
afford a commercial basis for a railway? I do not think so.
1968. No matter how much fruit came along the railway, it would be traffic which would not pay?
Quite so.
1969. Then in extending a railway into any fruit district we must not look for a commercial basis? No.

TUESDAY, 1 FEBRUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

John Bennett, sworn, and examined:—

1970. *Mr. Clarke.*] Have you any statement to make as to the origin of the Rosehill railway? I was
interested, equally with Mr. Holt, in its construction. We first called for tenders for a single line. Mr.
Goodchap said, "If you will make it a double line, and do certain things which I require—construct a
large platform, for instance, and have it under Government supervision,—we will take it over on comple-
tion." Prior to that a Bill was passed giving the right to construct; but Mr. Goodchap inserted a clause
which rendered the railway useless to us by making it a part of the main line. 1 Feb., 1898. J. Bennett.

1971.

- J. Bennett.
1 Feb., 1898.
1971. It was formed by a company in the first instance? Yes; by Mr. Holt, the manager of the Bank of New Zealand, and myself.
1972. I suppose the Rosehill Race-course was opened and races were held upon it prior to the railway being constructed? Yes.
1973. What arrangement was there between the Government and the company as to what each should receive? We got so much for first and second-class passengers. I think we got 6d. for first and 4d. for second-class passengers; but that I believe was reduced.
1974. Is there any other means of getting to the race-course without this branch railway? We could get by water or by land from Clyde. The extraordinary thing is that we made more money before the railway was constructed than we did afterwards. We did not sell the Rosehill Race-course until after the railway was completed.
1975. Is the railway to the race-course now in hands of a company? Yes.
1976. Is it a limited liability company? I think it is.
1977. Did Mr. Goodchap make the promise to which you have referred in writing? No; I took his word, and it was not his fault that the Government did not take the line over. I think the Bank was to blame. Sir Henry Parkes, at the request of Mr. Goodchap, wished the line—that is, from Clyde to the Parramatta River—with the wharf and steam crane, to be placed under offer for £50,000. The Bank said they would not take less than £60,000. We were at that time in the hands of the Bank, and were compelled to do as they wished.
1978. Then, virtually, this and Simpson's line are in the hands of the Bank of New Zealand? Absolutely.
1979. Are you aware that it is under offer to the Government for £25,000? Yes; when the news came to me that they had offered it at that I thought it was an act of insanity.
1980. Are you aware that it was agreed by the present Government to purchase the line subject to the approval of Parliament, and that Parliament refused to sanction the purchase? Yes.
1981. Do you think it would be a good purchase for the Government to make? I think if I had to manage it from to-day, at a value of £20,000, I could make 10 per cent. out of it.
1982. In what way? Take the passenger traffic from part of Granville, and then from the west part of Harris Park. Rosehill could be made infinitely more of by getting picnic parties together there, the same as we do on Eight-hour Day. Then, I think, you could intercept a large amount of the Parramatta River goods traffic.
1983. How do you account for the race-course paying better prior to the formation of the railway than it has done since? There is no accounting for it, excepting that there is more competition now in racing.
1984. Is it not more convenient for the people going to the race-course to have a line there? Yes; it would be useless now, I think, without the railway.
1985. Still the race-course could be carried on without it? I doubt it very much.
1986. You think that the purchase by the Government of what is called Bennett's line and Simpson's line, as far as Carlingford, would be a good purchase? I am quite sure of it. We once tested the passenger traffic by boats. I went to Mr. Brunton, the miller, and he said "We will give you all our stuff." It was the same with the Shale and Oil Company. There are three or four steamers constantly going to Parramatta with goods, and I think you would intercept the bulk of that.
1987. Independently of the line being carried, as proposed, from Carlingford to Dural, do you think it would be a good purchase? I am sure that even if it remained as it is it would pay 10 per cent. on a capital of £25,000.
1988. *Mr. Lee.*] Are you the person who obtained the Railway Bill in 1886? Yes.
1989. By what year was the line under that Bill finished? 1887 or 1888.
1990. In 1893 Mr. Simpson obtained a Bill to extend the line to Carlingford;—is your Company amalgamated with his? It is one and the same thing.
1991. What was your object in going to Carlingford? Sir Henry Parkes sent some experts from the Railway Department to the line. He said, "If you will attach to it a payable end we will take it over, as it is the only private line." After careful consideration, we said, "We will go to Cox's Corner." The money was obtained in England at a low rate of interest to do it.
1992. At the time you contemplated the Carlingford extension, did your estimated revenue show a profit over expenses? Yes; that was on a much larger capital.
1993. Was any written agreement entered into with Sir Henry Parkes? No; simply a verbal statement.
1994. Are we to understand that you constructed the extension to Carlingford on the good faith of the promise made by Sir Henry Parkes that the Government would take it over? Undoubtedly.
1995. Had it not been for that promise, would you have extended it? No.
1996. Notwithstanding the fact that there would have been sufficient revenue to recoup you? It did not show that there would have been sufficient. It would have shown about 4 per cent. clear, and that for private enterprise is not sufficient.
1997. Was that above working expenses and maintenance? Yes; but we were always handicapped by this being part of the main line. We had no terminal charges.
1998. No matter what charge you fixed upon from Carlingford to Clyde, you had at that point to contend with the Railway Commissioners on their own line? Exactly.
1999. As a matter of fact, they held the key of the position? Yes.
2000. And in point of fact, they regulated your trade for you? Yes.
2001. Did your company ever possess any rolling-stock or locomotives? No.
2002. After you had made the line to Rosehill, had you any rolling-stock? No; but under the Bill granted to me, the Commissioners were compelled to grant rolling-stock; but the line was then to be considered a part of the main line.
2003. Are you sure that the wording of the Act was so emphatic as that? It was very emphatic.
2004. Did it not rather give the Commissioners power to run over the line at any time upon giving your company certain notice? Yes, undoubtedly.
2005. They were not compelled to find the rolling-stock to run over your line? I think so. I may be wrong on that point; but the impression in my mind is that they were compelled to find it.
2006. If you refer to section 13 of the Act of 1886, you will find that the Commissioners took power—but not a compulsory power—to run trucks at any time by giving you notice, and probably that is what you are alluding to? I think it is.
- 2007.

2007. That being the case, you were to come to some arrangement with the Railway Commissioners? Yes. J. Bennett.
2008. To run as far as where? As far as the Parramatta River. We put up a wharf and a steam crane there, thinking to take the Parramatta River traffic as well. 1 Feb., 1898.
2009. And the Commissioners allowed you so much per ticket per passenger? Yes.
2010. Did you endeavour to make an arrangement with the Commissioners to run as far as Carlingford? No; I saw Mr. Eddy many a time to see if we could not get over that particular section of the Act, and he said, "I cannot go outside the Act of Parliament."
2011. That is to say, the power that was given in the Act of 1886 to run to Rosehill was not given in the Act which gave the company the power to extend to Carlingford? That is so.
2012. In process of time, I suppose the company became financially straitened, and the railway eventually fell into the hands of the Bank of New Zealand? That is so.
2013. Are we to understand that if the original intention of the company had been carried out they would have run their own rolling-stock over the line both to the Parramatta River and to Carlingford? Yes, in their own interest.
2014. I suppose it was some time after you had undertaken the construction of the line to Rosehill that your company discovered that it was not the financial success it was supposed to be? We, in ignorance, made arrangements with the Shale and Oil Company, with Brunton, and Hudson Brothers, to take whatever they could give us from the Parramatta River. Then we found that under the Act we had to consult with the railway people, and it was not worth doing at 1d. per mile per ton.
2015. That neutralised your profits? Absolutely.
2016. Then the promise came from Sir Henry Parkes that if you extended the line as far as Carlingford it would be taken over? Yes; so much so that the whole thing was constructed under Government superintendence. We had Mr. Cowdery's brother in the first instance. Everything was done in accordance with their approval.
2017. Do you happen to know what those lines cost? I think the first contract for the river came to between £40,000 and £50,000. I think in the Bank books it must now stand at a debit of between £90,000 and £100,000. We took every precaution to do everything as cheaply as we could. We called for tenders for the bridges over the Duck River Creek. Hudson Brothers were the cheapest, and they did it, and everything was done very well.
2018. Do you know whether your company ever held land outside the railway fences? We did.
2019. Do they still hold it? Yes.
2020. Where is it situated? To the west of the platform at Rosehill. We had a good deal of land there. It branches off to the Parramatta River, taking a north-easterly direction.
2021. After selling out of the company, did you still have land there? Yes.
2022. And that land is now in the possession of the Bank of New Zealand? Yes.
2023. Have you any interest at the present time, directly or indirectly, in this railway? No; not to the extent of a farthing.
2024. *Mr. Hassall.*] With regard to the proposal of the Government to take over the Rosehill railway, I believe that it was in 1886 that the Act was passed? Yes.
2025. Do you know that at that time Mr. Lyne was away, and that Mr. Fletcher was discharging the duties of his office? Yes.
2026. Mr. Goodchap at that time was Commissioner for Railways? Yes.
2027. Do you know whether any letter was written by Mr. Fletcher, acting on behalf of Mr. Lyne, with regard to the taking over of the railway? I never saw one. It would have been addressed to me, and I never had any letter.
2028. Then you think there is no such letter in existence? Yes.
2029. Has your own interest in the matter died out altogether? Yes; we made a large profit on the sale of the Rosehill Race-course proper.
2030. Has the Rosehill railway at the present moment anything but the Rosehill Race-course traffic to depend on? Nothing else. We have taken merchandise to the Shale and Oil Company and other people, but it never paid.
2031. In fact, beyond Rosehill the district is sparsely settled? I believe in the extension, because you take a large traffic from Rydalmere, which contains two churches, a public-house, and a large population. Rydalmere is $\frac{1}{2}$ mile from the Subiaco platform.
2032. If this railway would be a good investment at £25,000 is it not strange that the Bank of New Zealand do not try to make better use of it? The Government, under the Act, have stuck them up completely. It has no value outside the Government as long as this clause to the effect that it shall be considered part of the main line exists.
2033. Whilst you were in possession, did you make the line pay on a large capital? No, it never paid; but with this, and with the addition to Cox's Corner, you have an immense adjunct. As I said before, I could make it pay 10 per cent. on the whole of the line.
2034. Do you not think the traffic of the railway must be limited by reason of the proximity of the Northern line? Around Cox's Corner there is a large area under cultivation, and a larger population than there appears to be at first sight. Then you have Rydalmere, and then you intercept the traffic from the Parramatta River. I also think a good deal more could be made of Rosehill if trains were run regularly.
2035. Practically the only revenue which can be relied upon is the revenue received on race days? And the Eight-hour demonstrations. Then the place is admirably adapted for picnicking.
2036. But you will always have a strong competitor in the river for picnics? I do not think so. I think the river would be a source of revenue. They could go there by river or by rail. We used to have a large traffic by river when the railway first opened.
2037. Had the river traffic to make use of part of the railway system to Rosehill? It had to make use of the tram.
2038. Was it run in connection with the Rosehill property? No; but we arranged with the tram proprietors to make it do so.
2039. Then, practically, the tram is outside the control of the Rosehill railway proper? Yes.
2040. Would there not always be a fear of competition by river and tram as against the railway? I never fear that. It takes so much longer that people take the railway in preference.

- J. Bennett. 2041. Do you think there is any prospect of the Rosehill race-course ever being utilised for any purpose other than horse-racing? It should be, if land became very valuable. But I think it is improbable, as there has been so much money spent upon it.
- 1 Feb., 1898. 2042. It would only be a question, I presume, of the interest in horse-racing dying out, which might induce the present proprietors to put it to some other use? But what could they do with it.
2043. The fact remains that you could not make it pay, and you think the only chance is for the Government to take it over? I am sure it would be a good thing.
2044. Do you think a private company could make it pay? Yes, if section 7 of the Act, which makes it a part of the main line, were removed.
2045. Would you have to charge a local rate in order to make the line pay? Yes.
2046. *Chairman.*] And you say that under the Bill you have not power to charge that rate? That is so.
2047. *Mr. Humphery.*] It means this: that if you are going to use your line in conjunction with the Government line the same rate should be charged all through; and you have no power to charge a special rate between Clyde and Carlingford? That is so.
2048. *Mr. Hassall.*] You were debarred from imposing local rates, and consequently could not make the line pay? That is so.
2049. If you had had the power to charge special rates could you have made the Rosehill railway and Simpson's railway a profitable speculation? I do not think that Bennett's railway could be made to pay without the addition.
2050. *Mr. Roberts.*] Do you know the district north of Carlingford? Yes.
2051. Are you acquainted with the district known as the Hills? Yes.
2052. In your opinion would it be a desirable thing to purchase this railway for £25,000? Yes.
2053. Do you think the time has arrived when it would be desirable to continue the line in a northerly direction to Dural? I believe the Dural district is the best citrus fruit district in the Colony; and in view of the fact that 10 per cent. could be made out of the present line, I think it might be extended and made to pay well.
2054. Did you contemplate going further on? We did not. The truth of the matter is, that we thought we had a paying end at Cox's Corner.
2055. Do you think the line under consideration, from Carlingford to Dural, would serve the people better than a line from Westmead, or a tramway from Parramatta, along the main road? We have always had to contend with a good deal of jealousy from Parramatta. From Westmead to Dural there is some splendid land, and then you get patches of very bad land. Of course, I look upon it in this light: a railway exists to a certain extent, and by constructing it to Dural you develop a large district.
2056. A proposal has been spoken of for making a tramway through Parramatta from Baulkham Hills on to Dural? That would meet the present traffic; but I look upon Dural as a place which must go ahead.
2057. Have you been beyond Dural? Yes. I think that eventually it would go to Wiseman's Ferry. Then you would take all the Macdonald River traffic as well.
2058. With regard to the line from Clyde to Rosehill;—did you make any calculation as to what rate would have paid? When we put the boats across the river to take the traffic, it was a primitive way of doing it; but every week our returns increased. We made out, I think, that we should have something like £2,000 or £3,000 a year gross, but there was really nothing to boast about. The Government, having their own appliances, could, by charging a fair price, increase the revenue in every way.
2059. You think the Government would be able to make it pay? I am sure they would.
2060. You say that if a certain section were omitted from the Act, the line would be able to pay? Yes.
2061. What rate? Four per cent.
2062. Have you any figures to show that? I do not think, on a capital of £100,000, it would pay any private person; but it is a different thing if you get it for £25,000.
2063. Do you think a daily train down there would pay at any time? Yes. Take, as an illustration, the Northern line. They started with two trains, and now look at the traffic. It is creating its own traffic.
2064. Do you think a large amount of settlement would take place if the line were in existence? I am sure it would.
2065. *Mr. O'Connor.*] Has the Rosehill Race-course Company a claim on the large platform at Rosehill? No; that is given in with this purchase, if the Government make it.
2066. Had you any special reason for carrying the railway to the river? Yes; it was upon the promise made by Sir Henry Parkes.
2067. Could you, under Bennett's Act, make terminal charges? No.
2068. How did that affect you? Materially.
2069. What caused you to extend the line to Cox's Corner? It was on the suggestion of Sir Henry Parkes.
2070. From what portion of the extension did you expect the largest increase of traffic? Rydalmere and Cox's Corner, intercepting the traffic by river.
2071. What is your opinion respecting the passenger traffic on the line? I think it could be very much improved.
2072. Before you completed the line, did you offer it for sale to the Government? Yes; we were asked to place it under offer for £50,000, and the Bank would not accept it.
2073. How long is that ago? About two years after the completion of the line.
2074. Are both sides of the platform given in with the railway? Yes.
2075. According to the evidence which has been given, one side is unfinished? Yes.
2076. How is that? We stopped that, thinking we had quite enough when we could land 50,000 to 60,000 people there. We found one platform so very expensive that we stopped making a second.
2077. How came you to experiment with boats? To get the Rydalmere traffic. It was a suggestion of Mr. Eddy's, to see what we could do in the matter.
2078. What is your opinion about that experiment? We had not the money to put on a proper punt, and we had to abandon it.
2079. Who were the contractors for the bridges across the creek? Shand & Co., I think.
2080. Was the work well done? Splendidly done.
2081. Can any of the land which was resumed for the purpose of constructing the line be sold? I think the side you refer to—the unfinished part—could be sold.
2082. What profit did you made out of the sale of the railway to the race-course? I think £25,000.

2083. What kind of land is there between Cox's Corner and Dural? Very good—all suitable for fruit-growing.
2084. Does that answer apply equally to the land at Castle Hill? It is all good at Castle Hill.
2085. Was much land taken up in anticipation of this railway? I think a good deal—more than people think.
2086. Evidence has been given to the effect that there is a large quantity of land still unoccupied;—do you think if the line were extended it would lead to its occupation? I certainly think so.
2087. What extent of land was resumed for the railway originally? Two chains; I think in some instances we had to take more.
2088. Although you as a company have been crippled financially, nevertheless if the Government purchase the line at a nominal price it can, you think, be made a payable asset to the State? Yes.
2089. *Mr. Black.*] Did I understand you to say that Sir Henry Parkes promised to purchase the line if it were completed to Carlingford? Yes; he sent an expert over it, and he considered that was a payable end to put the Rosehill line.
2090. *Mr. Hoskins.*] Did not Sir Henry Parkes say that he was favourably impressed with the line, but that he would have to obtain the approval of Parliament for its purchase? No; there was no reservation of that kind.
2091. Did he say he would buy the line? He wanted me to place it under offer for £50,000. I thought it a good thing and I at once said to the Bank, "Let us get rid of it." They replied, "We will not take less than £60,000." The matter fell through.
2092. You say that you think a large goods traffic may be carried over the line;—from what source are the goods to come, and where are they to be taken? First of all, the terminus one way would be Clyde. You have Hudson Brothers, Brunton's, and the population round there. The Parramatta River would be a feeder to it. Brunton's cargoes of wheat would come there in the small craft, and would be landed and put into his mill. Then there are the fruit-growers. You have all that they produce, and then you have the return freight for what they require.
2093. Do not Brunton's get their wheat and send their flour by railway to Redfern? Yes; but how much cheaper would it be for them to get it in this way. There would be no transshipping.
2094. Then, according to your view of the matter, this line would be extensively used for carrying Brunton's flour, and would be in opposition practically to the main line at Redfern? It must take from that to a certain extent.
2095. Do you not think that the Commissioners would make charges which would favour the use of the line to Redfern instead of to the Parramatta River? I can always see the danger of having to compete with the Government, but there is another thing they do not compete with. There are four steamers carrying goods to and from Parramatta. The bulk of that could be intercepted by the Rosehill line and taken to Sydney from Rydalmere, Cox's Corner, and other places. The traffic from Parramatta to Rosehill is a mere bagatelle. It commences after you leave there.
2096. You do not expect to get any traffic from the river boats loading at your wharf? No, that is taken to the different wharfs up to as far as Ryde, but you would get it as far as Ermington.
2097. The fruit-growing district is some distance above Carlingford? No; there is a large district from Rydalmere up to Cox's Corner. Subiaco is the worst part of the land there.
2098. Has it ever occurred to you that it might be to Brunton's interest to patronise the railway in preference to the Parramatta River and the branch railway, because the Government can make favourable rates for the conveyance of their products? Undoubtedly.
2099. Do you think it is likely that the Commissioners would do anything to prejudice the receipts of the main line? If this were a Government line they would have no occasion to come into competition.
2100. How much land is there outside the Rosehill railway fence which has not been acquired by the Rosehill Race-course Company, but which originally belonged to you, and which is unsold? About 10 acres.
2101. Yourself or the New Zealand Bank sold a good deal of land in allotments about the Rosehill Race-course? Yes; but that is not debited to the railway. It is a distinct account.
2102. Do you think, if the Government acquired this railway and worked it, that that 10 acres of land could be sold advantageously? I do not think it is included with the railway.
2103. But do you think that the Bank could sell it advantageously, and by selling it contribute to the traffic of the railway? Undoubtedly.
2104. Is not there some portion of Parramatta out towards the Rosehill Race-course where the people have purchased land;—and would it not be more convenient for them to go over the railway in question? Yes; you would get a good deal of the Harris Park and the Elizabeth Farm traffic.
2105. *Mr. Humphery.*] We have been told that the average earnings of the Rosehill railway in goods traffic during the past ten years have been £30 a year;—how do you think it would be possible to so increase those earnings as to give your estimate of 10 per cent.? I do not look upon that £30 as anything. I think you will see at once that that £30 must have left almost a loss. There was no attempt to force traffic that did not pay.
2106. You say the railway should earn 10 per cent.;—how could the Government increase the goods-traffic on the line to bring up the earnings to your estimate? I take the passengers as well. For instance, you would have two stations between Clyde and the Parramatta River. You would intercept a lot of the traffic which goes to Parramatta and Harris Park.
2107. The earnings of one line would be lessened to increase the earnings of the other? You have a very large flat for occupation, and it would be occupied if you had facilities for people getting to town. You would be astonished at the population around that district which would use the railway. I think the Rosehill people alone would induce more traffic. Then you come to the people at Rydalmere who are almost entirely dependent on the river.
2108. Your view is that the line would come into more general use than it does at present? At present it is a dead letter.
2109. Why should it not be used to a larger extent than it is at the present time? Because it does not pay.
2110. If by running more frequent trains it would pay, why is it that they have not been run more frequently? Because the Government takes the lion's share. The Government has its own rolling-stock, and if it possessed this line it would make its own arrangements.

J. Bennett.
1 Feb, 1893.

- J. Bennett. 2111. What portion of the passenger rates did the company receive? 6d. for first-class, and 3d. for second-class passengers.
- 1 Feb., 1898. 2112. What is the length of the line? About 2 miles.
2113. Is not that a very high charge, compared with the charges which prevail at the present time? That is the trouble on a small line of railway.
2114. Have you not been complaining that you were not allowed to charge enough? Yes.
2115. And now you say you have charged far too much in proportion to the length of the line? This is allowed from Sydney to Rosehill. There is a very large traffic on race-days and other days.
2116. But you get 6d. for every passenger carried to Rosehill? Yes—that is, 6d. out of 2s. 6d.
2117. But did not the 2s. 6d. include admission to the race-course? No; there was a charge of 10s. for the course.
2118. Did every person visiting the course have to pay 10s.? Yes, in the best part, and 5s. elsewhere. One part of the flat is free. Admission to the flat is included in the railway ticket, and you receive 6d. from the first, and 3d. from the second-class passengers.
2119. How could it pay the Government to carry at a lesser rate than that, when it did not pay you? Because the line was not used often enough. Of course, it would pay handsomely if you could use it two or three times a week, instead of once in six weeks.
2120. Does not that mean that at the present time there would not be sufficient traffic to make it profitable to run the line? There would be sufficient traffic to run on the line twice a day.
2121. Where would the earnings come from, assuming there were to be a service of that character? The big returns would come at present from Rydalmere to Sydney, both in goods and in passengers.
2122. Where would they get into the Rosehill train? At the first station—the main road beyond Subiaco—which is $\frac{1}{2}$ mile from the Rydalmere Town Hall.
2123. Have you any statistics to show what the probable traffic would be? I spent two weeks over it, and gave all the information to Mr. Chapman. I do not think I have been to the Bank for three or four months, so that I have to give my evidence from memory.
2124. Your contention is that there would be a large new traffic coming to the Rosehill Race-course—that is to say, a traffic which at present goes by steamer? Yes.
2125. Therefore, the use of the Rosehill line would not diminish the earnings of the Parramatta line? No.
2126. *Mr. Trickett.*] I suppose you are aware that Rosehill is under the regulations of the A.J.C., and they have to sanction any extra racing? They apportion the days of racing.
2127. The 16th Section of Bennett's Railway Act provides that you are to make by-laws and regulations with regard to the railway;—do you know whether any were made? Yes, and printed.
2128. When? Before we ran the first tram.
2129. *Chairman.*] The railway was constructed subsequently to obtaining the Bill? Yes.
2130. How is it that you did not discover, before constructing it, that the rates were unsatisfactory? One was theory and the other practice. We never noticed it until we came to put it into practice, and then we were completely blocked. I may say that at that time the A.J.C. were not so despotic, and we got twice the number of race-days.
2131. You thought, when you constructed the line, that it would be taken over subsequently? Yes; otherwise we should not have touched it.
2132. Why did you decide to make your terminus at Carlingford? Because there is a large district around there, which the line must benefit.

Thomas Moxham, Mayor of Parramatta, sworn, and examined:—

- F. Moxham. 2133. *Mr. Lee.*] Are you acquainted with the route of the proposed line? Yes.
- 1 Feb., 1898. 2134. Are you aware that some years ago a survey was made from the western line from Westmead to Dural? Yes.
2135. Also, that there was a temporary survey for a tramway from the Parramatta Railway Station, Windsor Road, to Dural? Yes.
2136. Of the three routes which do you favour? The route starting from Parramatta.
2137. Do you think there is any necessity to take a railway through that country? Most decidedly.
2138. Then you are here to advocate the extension by way of Parramatta? Yes.
2139. We should be glad to hear your views? First of all, I consider Parramatta is really the capital of the Hills district, and a line starting from there to Dural would about equally divide the distance between the Northern line and the Richmond line. There is country out there which is unsurpassed for producing citrus fruits. There is a large quantity of land which is not put to the use to which it should be put, on account of the inconvenience and loss of time in getting to the market. At present there is a serious loss to those who follow the raising of fruit in summer-time, owing to the long distance they have to cart it to market. In many instances it is better to allow it to go to waste than to bring it to market.
2140. Are you a native of the district? Yes, of Parramatta.
2141. Have you seen the progress of the fruit-growing district during the last fifteen or twenty years? Yes.
2142. Do you think the fruit-growers, situated as they are, are served as well as they could be served for getting their fruit to market? Certainly not.
2143. Have you ever seen the roads beyond Pennant Hills impassable in bad weather? Almost impassable—in such a state that I would not like to drive a load of fruit over them.
2144. I suppose the fruit is conveyed in drays and spring-carts? Mostly in spring-carts—lorries are being used now; but it is only since the road has been macadamised to Hornsby.
2145. Do you advocate the extension more from a Parramatta point of view than in the interests of the orchardists? I think it would be in the interests of the country.
2146. The line to Carlingford is already constructed, and it is a long way out towards Dural? I think you will agree with me that the present starting-point from Parramatta to Dural would be no further than from the present terminus to Dural. That being so, I claim that if the line were not already constructed there would be no opposition at all to the line from Parramatta; and if that is so, I do not think that Parramatta, with 9,000 inhabitants and a sunken capital of £1,500,000, should be made to suffer because some private individuals have constructed a line which they are anxious to get rid of. I do not think it is fair to Parramatta, because this line has been constructed, that Parramatta should be made to suffer by taking it over.

2147. In what respect would Parramatta suffer if the line were made? We would lose a large trade which rightly belongs to Parramatta and which it now receives. Further, the portions which are quite as much entitled to railway communication—between Parramatta and Dural—would not be touched if this line were continued, except by a branch line, which would cost a considerable amount of money. T. Moxham.
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2148. The traffic Parramatta at present receives is the dray traffic? Yes.

2149. But if a line were made from Parramatta over the route indicated, would not you lose that traffic also? It is just questionable.

2150. If it came in by tram to the main line the town would lose it? But we would bring the producer into town.

2151. In any case when the fruit reaches Parramatta it comes by train to Sydney—do you not think that the people would pass beyond Parramatta to do their business? No; the business connection with Parramatta and the hills at the present time is so interwoven that I do not think that the people would break it away.

2152. Supposing the line is made, would not the length prevent the possibility of much residential settlement? I think the opposite. I think the facilities for getting there would be quite sufficient to enable us to say that there would be a large residential population springing up there on account of the healthy condition of the hills.

2153. But the people who would go there would be chiefly city people? Perhaps so.

2154. And would not the distance by way of Parramatta be too great? In many instances they go to the Mountains now, and it would be a lesser distance than to the Mountains.

2155. Do you advocate a tramway through the town or a railway by way of Westmead? I prefer to see a tramway through Parramatta, along O'Connell-street, in front of the gaol, up the centre of the road, up to Baulkham Hills.

2156. You are aware that it would not be possible to run a tramway the whole of the distance to Dural on account of the heavy grades? That is so. A population has sprung up so quickly that we can only anticipate that if it goes on that township itself will be entitled to consideration, and if the line is constructed it should be constructed from Parramatta.

2157. Do you think a line in that direction will serve the greater number of people;—would it not be on the outskirts of Carlingford, Pennant Hills, Dural, and those places? I think a line from Parramatta will serve the greatest number, inasmuch as the present Northern line is a feeder to a large extent. They are at present supplied with a line, whilst those people who have been the pioneers in establishing the citrus fruits are to be passed by.

2158. Have you gone into the financial aspect of the question? Yes; the Committee went into it carefully.

2159. Were you associated with Mr. Wright? Yes.

2160. Are you aware of the nature of the figures supplied to the Committee by him? To some extent, I am.

2161. Can you say whether Mr. Wright's figures are correct? The Committee endeavoured to keep the charges down as much as possible, in order that it might be seen that we were honestly disposed in compiling them. I think we rather under-estimated.

2162. What is your opinion of the possible expansion of fruit-growing in that district? I would expect with railway communication a difference of four times the quantity of land at present bearing fruit.

2163. Would not the supply be in excess of the demand? We are endeavouring every year to find fresh markets, and they will be found. At present the importation of Italian lemons and Californian oranges into the city is very large, notwithstanding the local supply.

2164. Have you noticed that there has been a steady and continuous increase in the development of the fruit-trade of that district? That is so. Of course if we were to attempt to raise fruit as we did in the old days it would not pay. It is only because of the different methods adopted that we are able to do so well.

2165. You are aware that the growers have suffered from bad seasons, pests, and so on, which have made fruit-growing, for the time being, unprofitable? That is so.

2166. In spite of that, do you think the fruit-growers on the hills are able to grow fruit at the prices ruling and make a living out of it? Decidedly. I think it is prolific. We ourselves have only completed laying out about 70 acres for an orchard.

2167. Are there many old residents there who first took up the business under the difficulties which existed? Yes.

2168. Is it not a fact that their sons and relatives have remained in the district and followed the same occupation? That is so in nearly every case.

2169. Do you look upon the district as being fairly well off, or do you look upon the settlers as living from hand to mouth? I do not think there is any more comfortable class in New South Wales than the fruit-growers of Central Cumberland. I think it is the most certain means of getting a sure living, and a free, independent living.

2170. You have noticed no appearance of the industry going back? No; we have certain failures, of course, but I think the industry is going ahead.

2171. I suppose it will be next to impossible for outside countries to compete with you in summer or stone fruits, because they are of a delicate nature and must be got into the market very quickly? Yes.

2172. What you have to contend with is the importation of citrus fruit? Yes, and with proper care and storage we will be able to compete against that.

2173. Are you of opinion that if the estimate is 360,000 cases of fruit a year, in ten years' time it is likely to be doubled? I should think more than that. There is a constant looking after orchard property, and a constant extension every year.

2174. And the virgin land is there? Yes, and almost every man with an orchard endeavours to enlarge it year by year.

2175. You are of opinion that the district would be better served in a general way if a line were taken direct from Parramatta? Yes; I should look upon it as a cruelty to the people of the hills if the Rosehill extension were gone on with in preference to an extension from Parramatta. Supposing both points were equal, I think the number of people in Parramatta should be sufficient to weigh with the Committee in favour of the Parramatta route. Independently altogether of that, however, Parramatta has a prior and first

T Moxham. first claim, inasmuch as that route will serve a greater number of people and open up better country and more of it than the other line can possibly do. The other line will certainly rob the Northern line to a very large extent.
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2176. In any case, a line going out to that district must rob the Northern line? To some extent; but a line through Parramatta will not rob it to the same extent as the Rosehill line.

2177. Do you think the increased traffic brought in would more than compensate the Northern line for its loss? Much more.

2178. You seem to take it for granted that tramway communication from Parramatta will be possible? Yes; I think so. I know there are some steep grades, but I do not think they are so bad that the engineers will not be able to get over them.

2179. At the present time the freight on fruit from Parramatta to Sydney is 1d. per case? Up to twelve cases. If you send less than twelve cases it will be 1s. all the same.

2180. If the line were taken from Parramatta to Dural, what could the Dural people pay from there to Parramatta? They could afford to pay what they pay now by road. They could not think of delivering their fruit to the nearest point under 3d. per case.

2181. Do you think it probable that the Dural people would be satisfied to pay 3d. a case from there to Parramatta, whilst they could get it from parts along the line to the main Northern line, from which point it would be carried at 1d. per case? They certainly would take the cheapest mode, all things being equal; but it must be remembered that getting the fruit speedily and fresh into the city of Sydney, means an additional freight. You might get a wire, for instance, to say that the market in oranges had gone up, in which case it would pay them to incur additional cost in getting their fruit to market. If the people of Dural get their fruit to market at a certain cost, it is only at a great cost to the Colony of New South Wales, inasmuch as the road from Galston to Hornsby has cost the Colony £30,000 or £40,000 to construct.

2182. If the line were run out, the people would still have to load up and convey their produce from their orchards to the line;—therefore do you not think the rate of 3d. per case would be too high? I do not advocate a sum of 3d.; but it would be as fair for them to pay 3d. to the Government as it would be to spend it on the road.

2183. Do you think a charge of 1d. to 1½d. per case from Dural to Parramatta could be depended upon? I think that would be extraordinarily cheap. I think 2d. would be fair to the Government and to the grower. I do not think any grower would object to pay 2d.

2184. Has there been any public meeting in Parramatta with regard to the matter? Yes; from time to time. We have had one recently. I should like to make reference to the evidence of Mr. Brodie. Meetings have been held at Parramatta and Castle Hill. The whole of these meetings were held in 1890. On May 12 a large meeting was held at Castle Hill. Mr. J. C. Hunt moved for a line from Westmead to Dural; Mr. Brodie, in seconding it, said he was very strongly impressed with the necessity of constructing a line which should branch from Parramatta. Two days earlier—on May 10—a large meeting was held in the Parramatta Town-hall in favour of a line from Parramatta to Dural. Mr. Brodie then moved that a petition be forwarded to the Minister in which the following words occur: "That this meeting is of opinion that it is desirable that residents of Castle Hill and Dural should have railway communication with Parramatta, and pledges itself to urge upon the Government the construction of a line of railway connecting those places with Parramatta." In the course of his remarks he spoke strongly against the proposal for a line from Rydalmere or Rosehill, and urged the adoption of the petition of the meeting. At a meeting on 2nd July, Mr. Brodie spoke strongly in the same terms, advocating the Parramatta line. That is the Mr. Brodie who gave evidence before this Committee.

2185. *Mr. Farnell.*] Was not that prior to the construction of this line? I think not.

2186. *Mr. Lee.*] What other points do you wish to bring before us? I think the line should go further even than Dural; it should touch the Northern line at Singleton. The country people would be saved a distance of 49 miles travelling, which would mean a lesser cost in the transit of goods, and enable the people to get quickly to market.

2187. That would apply to any route either by way of Parramatta or Westmead? That is so. We have splendid land along the Macdonald River, also at Putty and Wollombi. In addition to the carriage of fruit, some weight should be given to the different materials which the Parramatta district could supply. For instance, we ourselves would run a tramway into our freestone quarries, which would convey at least 3,000 tons of stone per year.

2188. Where is the quarry situated? Two miles from the Parramatta Railway Station, on the Windsor road, about a mile on the other side of Murray's Hill. In addition to that large output, we could expect increased traffic. Further on, again, on this side of the Public School, we have a white-metal quarry which is being opened-up, and is producing first-class material; but unfortunately the carriage is so far that we are shut out from the market. Further on, again, we have another white-metal quarry on Government land which, for the same reason, cannot be utilised. We have three quarries there, which under ordinary conditions would mean a large output on the railway. We ourselves would send at least 3,000 tons of stone away every year. At the present time we have to cart a great portion of that stone to Rookwood, a distance of 8 miles. If the line passed our quarries, instead of costing us 6s. or 10s. a ton, we could get it landed in the yards at Rookwood for about 2s. 6d. a ton.

2189. Then of course it would have to travel over the main line? Yes, which it never sees at the present time.

2190. Would it be possible to run railway rolling-stock over the tramway? If it will not carry 6 tons of stone it will not carry 6 tons of fruit.

2191. But unless the rolling stock is common to both the line and the tramway, it will necessitate transshipment at the Parramatta station? You will have to run rolling stock to meet the requirements.

2192. *Mr. Farnell.*] Did you mention about the stock coming from Kellyville? That has a great future.

2193. You know the proposed route of both the tramway and railway from Parramatta and Westmead to Dural? Yes.

2194. Do you know how close the nearest point would be from the centre of Kellyville? No; The proposed line is closer to Kellyville than either of the others.

2195. You do not advocate a branch to Kellyville? It would be too costly.

2196. Supposing it is practicable for the rolling stock used on the tramway to be used on the main line, do you think a tramway of that description would meet the requirements of the district? I do.

2197.

2197. *Chairman.*] You think fruits deteriorate by road carriage? In wet weather, when the roads are bad, the summer fruit is to a great extent deteriorated.

2198. Do you believe that, generally speaking, a grower would give 3d. to have the fruit taken away by rail, whereas he would not be prepared to give more than 1½d. to have it taken away by cart? It would pay him better to give 3d. to have it taken by rail than to have it carted free. At the present time the inconvenience to the people at Kellyville and Dural is so great that many of them have to leave home in the middle of the night to get to market by 5 o'clock in the morning.

T. Moxham.
1 Feb., 1898.

WEDNESDAY, 2 FEBRUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
The Hon. JAMES HOSKINS.
The Hon. CHARLES JAMES ROBERTS, C.M.G.
The Hon. WILLIAM JOSEPH TRICKETT.
The Hon. DANIEL O'CONNOR.
HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
JOHN LIONEL FEGAN, Esq.
THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.
FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and further examined:—

2199. *Chairman.*] You are aware of the points upon which the Committee desire information? Yes. I wish to add to my evidence two statements showing the lengths of each description of land passed through by the Westmead to Dural railway and the Parramatta to Dural tramway. They are as follows:—

H. Deane.
2 Feb., 1898.

WESTMEAD TO DURAL RAILWAY.

Roads	20½	chains or	2·32	per cent.
Bush land	193½	”	22·06	”
Orchards	208½	”	23·75	”
Grass land	362½	”	41·29	”
Cultivation (other than orchards)	37½	”	4·25	”
Crown land	55½	”	6·33	”
	877·0	”	100·00	”

Total lengths—10 miles 77 chains.

PARRAMATTA TO DURAL TRAMWAY.

No. 1. Grades 1 in 25 and 1 in 50.

Streets and roads	8 miles 12 chains or	66·9	per cent.
Town property	0 ” ’09	”	1·0
Bush land	0 ” ’61	”	6·3
Orchards	1 ” ’07	”	9·0
Grass land	1 ” ’55	”	13·8
Cultivation (other than orchards)	0 ” ’30	”	3·0
	12 ” 14	”	100·0

No. 2. Grades 1 in 20 and 1 in 30.

Streets and roads	9 miles 33 chains or	77·5	”
Town property	0 ” ’09	”	1·0
Bush land	0 ” ’34	”	3·5
Orchards	1 ” ’16	”	9·8
Grass land	0 ” ’51	”	5·3
Cultivation (other than orchards)	0 ” ’29	”	2·9
	12 ” 12	”	100·0

With reference to the question of making a deviation from Carlingford to pass through Castle Hill, I might say that that is quite impossible. The present line follows a spur or ridge, and when you leave it, to the right or left, you get into unmanageable ground—the ground falls away too much. I was asked on a previous occasion to state what the saving of cost would be by the use of sharper curves. On the Camden tramway there is a curve of 5 chains radius. There were several, but they have all been cut out but one. Some time ago I had an estimate got out of the effect which would be produced on the Dural railway line by adopting 6-chain curves. It would mean a saving of £1,200 per mile; the aggregate saving would be £10,800. Six-chain curves are undesirable; at the same time most of the rolling-stock would go round them. We have a number of engines—the suburban engines, for instance—which would go round a 6-chain curve, but I do not recommend it. Five-chain curves would not be unworkable, as shown by the example of the Camden tramway, but they have much less to recommend them.

2200. *Mr. Hoskins.*] Where is there a 5-chain curve on the Camden tramway? Near to Campbelltown.

2201. *Chairman.*] Is the 6-chain curve the least permissible? I should not like to say that. I should say, from the example of the Camden tramway, that 5-chain curves would be workable.

2202. But there is a difference between workable and desirable? I should say that less than 10 chains for a railway is undesirable. We have, or had, 8-chain curves on the Mountains, and most of them have been cut out, and 12, 14, and 16-chain curves substituted.

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2203. *Mr. Hoskins.*] The goods trucks have straight axles, as a rule, and are therefore difficult to work around curves? Yes, they do not turn readily, and a 6-chain or 5-chain curve would be most objectionable on an ordinary railway. A 10-chain curve is objectionable where there is express traffic to work.

2204. If a 6-chain curve were objectionable on a railway, would it not be much more so on a tramway, which is generally a rougher road than a railway, and which cannot be kept in such good order? I do not see that there is any objection on that account; the tramways are kept in good order.

2205. With the ordinary road traffic going over it? Yes; you can keep a country tramway in as good order as a railway. There is a difficulty about keeping the tramways in the streets in good order, because you have the surface of the street to take up every time you want to lift the road; but a country tramway which is off the traffic road is as easy to keep in order as a railway.

2206. *Chairman.*] If you put in any sharp curves you cannot expect to get the speed on your lines which you would get with easier curves? That is so. I would add that if 5-chain curves could be substituted instead of 10 the saving would, roughly speaking, be about £300 per mile greater, so that the saving in total cost would be £13,500. I should like to add that, in my opinion, it would be a great mistake to try and effect a saving in that way. My estimate only applies to the cost of construction. The resumption would also probably be somewhat less; but without making a detailed survey and careful estimate it is impossible to say exactly. With a line having the grades proposed, and 5-chain curves, you would still be a good way off from the cheapness of a tramway which has steep grades, and follows pretty nearly the course of the road, and thus avoids resumptions. I do not think the lessening in the cost of resumption would be so very great merely from the adoption of the 5-chain curves. It would be something, but not very large. With regard to the Camden tramway, which I was asked to give some information upon, I find that the ruling grade is 1 in 19 in one direction, and 1 in 20 in the other. It is 1 in 20 rising from Campbelltown, and 1 in 19 falling from the crest of the hill down towards Camden. I am not quite sure which curve has been left, but I think it is the second curve at the top of the hill, between the aqueduct and the main Southern line. There is a good deal of information about the construction of the Camden tramway and the working of it, in the inquiries of the Public Works Committee regarding the Culcairn to Corowa line, pages 13 and 16, and the Goulburn to Crookwell line, page 47.

2207. *Mr. Hoskins.*] You have told us you could make a line at a cheaper rate with a 5-chain radius;—but would not that be at the expense of haulage? There is a little more resistance on the sharp curves; but where the curves are regulated so as not to be on the steepest grade they make very little difference. If you have a sharp curve, it is a short one; if you have a flatter curve, it is a long one. The resistance of curves is shown to be very nearly in proportion to the curvature, and as the length of the curve would be inversely in proportion to the curvature the total resistance would be approximately the same. The work done on the Camden tramway is this: The engines that are used there will drag up three "D" trucks; but the ordinary load, as allowed by the Railway Commissioners' regulations, is to carry a passenger car and two "D" trucks. A "D" truck weighs about 4 tons, and carries from 6 to 8 tons.

2208. *Chairman.*] What would two "D" trucks fully loaded weigh? About 24 tons. The engine on that line is a tank-engine—a sort of superior tramway motor.

2209. What would its power be in comparison with one of our ordinary tramway motors? The Camden engine would do about 50 per cent. more than the Sydney tramway motors. It would be quite possible to have stronger engines. When the Camden tramway was first laid it was laid with 40-lb. rails, and recently the Railway Commissioners have had the road re-laid with 60-lb rails, so that it is capable of carrying as heavy traffic—that is to say, the road is strong enough to carry as heavy traffic—as is carried on the country branch lines.

2210. Therefore, if you required to double the number of "D" trucks, you could put an engine on capable of carrying them? Yes.

2211. Has your estimate of cost between Carlingford and Dural been made with the same weight of rails? Yes; 60-lb. rails.

2212. What grade have you from Carlingford to Dural? One in 35 on Simpson's line, and 1 in 40 beyond.

2213. Do you see any advantage in reducing that? No; there would be no real advantage.

2214. The saving in the initial cost would be too dearly paid for in the subsequent cost of working? That is so, and you would have a very ugly, humpy line, which would be very awkward to work, and the saving after all would be comparatively small.

2215. It is possible to extend the line from Carlingford to Dural with the same grades which you propose, but making the curves 5-chain curves at a lessening in the total cost of £13,500, and on this line it will be possible to put an engine which would be able to deal with any trade which would be likely to come to Dural? Yes; I do not think there is any doubt about that. Of course, the district is not capable of indefinite development.

2216. What speed would you get on the line? I do not think it ought to exceed 15 miles an hour.

2217. With regard to the saving in resumption, you are not prepared to express an opinion excepting that it will be a little less with a 5-chain curve? Yes.

2218. *Mr. Hoskins.*] What is the sharpest curve in the original estimate of the Dural railway? I think 10 chains was the limit.

2219. *Chairman.*] You might make a statement in general terms, giving a comparison between the Camden tram line and this? The class of country is very different. The soil is somewhat similar, but the country is much rougher between the Parramatta River and Dural. There are long stretches of flat on the Camden line. It is a tolerably level country which lends itself to good grades, a condition that is almost entirely absent from the Rosehill to Dural line.

2220. If you made a tramway with a 5-chain curve could you take your "D" trucks up? Yes.

2221. But you would not effect a saving? If you have 5-chain curves you can get the four-wheeled trucks over the line, but you cannot cut down the expenditure below a certain figure.

2222. Any lessening of the 5-chain curves means transshipment where it reaches the main line? Yes; it means manipulation of some kind.

2223. Are we justified in believing that £13,500 is the extreme amount which you can take off the cost of construction if the rolling-stock which goes to Dural has also to go to Sydney? Yes.

2224. Is this a reasonable inference—the distance from Carlingford to Dural being 9 miles, and the distance from Parramatta to Dural being 12 miles, the cost of the tramway from Parramatta to Dural being

being £29,000, therefore the cost of a tramway from Carlingford to Dural would be £22,000? No; I should not like to undertake to make a tramway from Carlingford to Dural at the same rate per mile as from Parramatta to Dural. I think a tramway from Carlingford to Dural on the same lines as the Parramatta to Dural tramway would certainly cost £3,000 per mile, that is £27,000.

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2225. To all intents and purposes it would be as expensive to get from Carlingford to Dural with a tram as from Parramatta to Dural with a tram? Yes, within £2,000 difference; that is for construction alone.

2226. And is it not probable that you would have larger deviations between Carlingford and Dural than between Parramatta and Dural? There is no doubt about it, because the country is more uneven.

2227. Therefore the deviations and severance would make up the £2,000 which you particularise? I think it is very likely.

2228. *Mr. Lee.*] With regard to the estimate of the cost of the tramway from Parramatta to Dural, was that tramway to carry tramway rolling-stock only, and thus necessitate transshipment to the main line? Yes.

2229. That tramway would not carry ordinary rolling-stock? No; on account of the curves chiefly.

2230. Could the Parramatta tramway be altered to a 5-chain curve without necessitating very much larger resumptions? No. You would get into larger resumptions, and you would have much difficulty on that account, especially in the town.

2231. Would you be able to adopt the route as shown on the town maps? The curves in the town, instead of avoiding a good deal of resumptions, as they do, would cost a great deal.

2232. But that tramway, as designed, is intended to carry tramway rolling-stock only, which means that there must be a transshipment on to the railway trucks at the junction? Yes; it means that the tramway rolling-stock could not run on the main line.

2233. The reason why the ordinary railway rolling-stock could not be run on that tramway line is the sharp curves? Yes.

2234. But if it were devoid of curves, like the Camden line, the railway stock could be run upon it? Yes.

2235. *Mr. Hoskins.*] What would be the difference in the estimated cost of a tramway from Parramatta to Dural if you laid out a tram-road which would carry the ordinary rolling-stock? If I had to consider that question I should follow an entirely different route, because it will be undesirable to bring trains like that through the streets of Parramatta. In any case, I think the most convenient way of carrying traffic of that class would be to carry it along the route of the Westmead to Dural line. That has been laid out with 10-chain curves, and was estimated to cost £57,000. If you reduce the 10-chain curves to 5-chain curves, as in the case of the Carlingford to Dural line, you will get probably the same proportionate reduction. I should suppose, without going into the matter any further, that as the £57,000, the cost of the Rosehill to Dural line, can be reduced by £13,500 if you put in 5-chain curves, the Westmead to Dural line could be reduced to the same extent; but without going into the question in detail, I should not like to say so definitely.

2236. Would not there be a larger resumption of private land on the Westmead to Dural line than on the other? I am rather doubtful whether there would. The line is longer, but at the start from Westmead it goes through a good lot of Crown property, and further on, after passing the first hill, the country is not so rugged as on the other route, and probably the line could be kept nearer the road, and so avoid a good deal of resumption.

2237. *Chairman.*] Is the minimum cost of the construction of a railway from Westmead to Dural, upon which rolling-stock suitable for utilisation on the main line could travel, £44,000? Yes.

2238. What would be the cheapest cost of a line from Carlingford to Dural? About the same thing. I believe that is how it would work out; but I wish the Committee to understand that it is a rough estimate—rather a guess than otherwise.

2239. *Mr. Hoskins.*] In respect of the 3-chain tramway which you say would have to go through the streets of Parramatta, would it not have to cross the river by a bridge? Yes; we should have to build a new bridge.

2240. What would that cost? About £1,700 for a tramway.

2241. *Mr. Lee.*] Is that included in your estimate? Yes.

2242. *Chairman.*] To make any running-road on which the rolling-stock could go right through from Sydney to Dural, you cannot approach Dural under £44,000, and it would cost pretty much the same amount to go to Carlingford? Yes.

2243. Would Westmead be the cheapest approach if 5-chain curves were to be made? Yes. If you adopt 5-chains through the town you have a good deal of resumption; you cut off a good many corners.

2244. *Mr. Lee.*] What would be the estimated cost of the line from Parramatta to Dural constructed precisely on the same lines as you would construct one for £44,000 from Westmead to Dural? It would be a good deal more than £44,000, because you would have to junction with the main line.

2245. You have told us what the cost would be from Westmead to Dural;—what would be the cost of a line of precisely the same character from Parramatta to Dural—that is, a line with 5-chain curves? You cannot do it at all if you have the same grades; you cannot get up to the railway station. The tramway through Parramatta has steeper grades than the Westmead railway—1 in 25.

2246. Would that be prohibitory—you have 1 in 19 on the Camden line? Yes; but if you put it on the same lines exactly with Westmead, if you want the steep grades, I suppose it can be done, only you would have considerable amounts for resumption. You would have to cut off corners in the town.

2247. Do you think it would exceed £44,000 exclusive of resumptions? No; I daresay it would not.

2248. *Chairman.*] Do you think you could get out of Parramatta with a line such as you suggest? If you adopted the steeper grade you could get down Taylor-street. You would have some resumption there, and some houses to pull down. You might go along Macquarie-street until you got to O'Connell-street and then turn round and go straight ahead. You would have heavier resumptions further on again, and you would have considerably more works than you would have on the tramway to carry the heavier rolling-stock and to preserve the flatness of the curves.

2249. *Mr. Lee.*] It appears from the estimate of the land required that for the tramway purposes only about 1 per cent. of the length of the line would be resumed? Yes.

2250. How could that be so largely increased if you went for a line which gave you a 5-chain curve? I think it is clear that if you have to put flatter curves at the corners you will run very considerably into property.

2251.

H. Deane. 2251. Along the proposed tramway route there is 66·9 per cent. of the route which would be over streets and roads, whereas on the Carlingford extension there would be resumed land the whole of the distance; —you do not favour any extension from Parramatta—either tramway or railway? I am only describing engineering features of the different schemes. I am not making any recommendation. I have endeavoured to show the advantages and disadvantages of each.

2 Feb., 1898.

2252. *Chairman.*] The two lines, one starting from Parramatta and the other from Westmead, become practically the same $1\frac{1}{2}$ miles out of Parramatta;—what you did, in searching for a railway to Dural, was to go to Westmead, utilising the western line for a mile or so, and then turning due north to save resumptions? The thin red line on the map shows the position of the tramway, following generally the main road; but the line from Westmead, as shown in the thick dotted line, is not on the road at all. You have to keep off the road in order to get the curves and grades desirable for a railway. If you want to adapt the route of the Parramatta tramway to the railway rolling-stock by putting in 5-chain curves—still adopting the same grades—you would not adhere to the road, as you would with a tramway. You could follow the road in places where it does not curve very much, and so avoid a good deal of resumption, but you would not be able to get away from resumption almost entirely, as you do with the tramway.

2253. *Mr. Lee.*] In other words, you would be compelled to leave the road for grade purposes at more points than you would with a tramway, and that would mean increased resumptions? Yes. I should like to refer the Committee to the 1887 Report of the Railway Commissioners, pages 80 and 120, and to the Supplementary Report, 1887–8, published, I think, in October, 1888, page 17. Under Mr. Goodchap, the Camden line always appeared in the Railway Reports as the Camden tramway; it was treated separately. Up to 1888 a profit was shown on the working of the tramway. Since the Railways Act of 1888 came into force, the Commissioners have incorporated the Camden line into the Southern system, and I understand that not only has there been considerable expenditure in the way of improvements on to the line, adding to the capital, but that the rates have been lowered, so that were a separate report made of the Camden working at the present time, it would not show the profit which was shown in the time of the late Mr. Goodchap. I understand that there used to be special rates, and Mr. Goodchap showed a profit on working, in 1888, of something over 4 per cent., but I am informed that now there is no such profit. The rates having been reduced, and the interest on capital expenditure having increased, there is now a loss in working. The other point I wish to mention has reference to the Rosehill to Carlingford lines. I have calculated the value of the present line—that is the Rosehill line and Simpson's line—in round figures at £42,000. That is to say, in my opinion, the works could be constructed, as they stand at present, for about that amount. They have, no doubt, cost more, especially at the Rosehill end. My estimate does not include resumption. I was asked a question as to the value of the materials to be removed; it would be very little. I put down the rails and fastenings on the Simpson's railway at £1,650 to move; sleepers, £495; and other materials about £500; a total of £2,645. Then there is the bridge to consider. If that bridge had to be removed there would be a lot of waste, because the piers and the abutments would be useless. The best thing to do, I think, would be to convert it into a road bridge. The value of the materials which could be removed would probably not be more than £1,800.

2254. Is there any need for a road bridge there? I do not think there is much demand for it.

2255. *Mr. Black.*] What did the O'Connell-street bridge cost? About £3,000, I believe.

2256. Did I understand you to say it would not carry a light railway? Yes; it was not designed for a railway.

2257. Would it cost much to strengthen it so that it would carry a railway? It is too narrow for a railway.

2258. What would it cost to widen it? It would cost as much as to build a new bridge.

2259. *Chairman.*] You have told us that the Simpson's railway bridge will carry traffic;—do you desire to modify that statement? I said I should want to stiffen the bridge up before it carried traffic.

2260. What does the stiffening process mean? The expenditure of a few hundred pounds.

2261. Do you know where the Pennant Hills quarries are? Yes.

2262. Can you express an opinion with regard to the cost of making railway connection with them? I have seen what Mr. Walter Smith has said about the matter. I think, probably, the railway could be carried out for the amount which he mentioned—that is, simply the railway connection. He has not provided for any extra sidings; but that would not amount to very much.

William Edwin Tunks, Land Valuation Branch, Department of Public Works, sworn, and examined:—

W. E. Tunks

2 Feb., 1898.

2263. *Chairman.*] You were asked to find the cost of resumption of the land on the railway route from Carlingford to Dural? I have inspected the land from beginning to end. I find there are twenty-nine blocks of orchard taken, containing an area of 69 acres 3 roods 19 perches. There are thirty-two blocks of cleared land ready for the plough taken, containing an area of 70 acres 3 roods 26 perches. There are six blocks of unimproved land, containing an area of 18 acres 0 roods 29 perches. That means sixty-seven blocks altogether, containing an area of 156 acres 3 roods 34 perches, which I value at £7,500. Then there are buildings taken which I put down at £750; severance, £3,000; forced sale, £800; cost of transfer and conveyance, £550; that makes a total of £12,600. Against that betterment could be deducted, amounting to £2,700, making a total cost of £9,900.

2264. What width have you taken? Two chains right through, and an additional width for two stations 5 chains wide.

2265. What width has Simpson's railway taken, from Carlingford towards Clyde? I think 2 chains right through, with the exception of the station portion.

2266. If you lessen the width by one-half, does it mean that all your items remain the same with the exception of the £7,500, which could be lessened by one-half? Yes.

2267. In other words, instead of the resumptions being about £10,000, we might reduce it to between £6,000 and £7,000 if we had it 1 chain wide instead of 2? Exactly so.

THURSDAY, 3 FEBRUARY, 1898.

Present:—

THOMAS THOMSON, EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
The Hon. JAMES HOSKINS.
The Hon. CHARLES JAMES ROBERTS, C.M.G.
The Hon. WILLIAM JOSEPH TRICKETT.
The Hon. DANIEL O'CONNOR.
HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
JOHN LIONEL FEGAN, Esq.
THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.
FRANCIS AUGUSTUS WRIGHT, Esq.
FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

Walter Alexander Smith, District Engineer, Roads Branch, Department of Public Works, sworn, and further examined.

2268. *Chairman.*] You hand in a statement with regard to the possibility of access to the Pennant Hills Quarry? Yes, as follows:— W. A. Smith.

Department of Public Works, Sydney, 31 January, 1898. 3 Feb., 1898.

DURAL RAILWAY INQUIRY.

I have the honor to report that at the request of the Parliamentary Standing Committee on Public Works I again visited Pennant Hills Quarries on the 29th instant, with a view to ascertain the practicability of constructing a line of railway, and as an alternative a road to connect these quarries with Simpson's line at Bowman's lane crossing—2 miles 10 chains.

Railway.

A line of railway 61 chains long and presenting no engineering difficulties could be constructed with a ruling grade of 1 in 35 at an approximate cost of £2,400, added to which would be the resumption of about 5 acres of orchard land and 3 acres of bush land, which, with compensation for severance, might be put down at £900, thus bringing the total estimated cost of the line up to £3,300.

Road.

A metalled road 50 chains long with a ruling grade of 1 in 15 could be constructed with the same terminal points as the railway at a cost of £312. This low price is accounted for by Mr. Vanderstegen's offer to supply the necessary broken metal free at the quarries, but added to this would be the cost of resuming 5 acres of land which, with compensation for severance, could be put down at £300, making the total estimated cost of the road £612.

WALTER A. SMITH, M. Inst. C.E.

DETAILS OF ESTIMATES FOR RAILWAY AND ROAD CONNECTING PENNANT HILLS QUARRY WITH SIMPSON'S LINE.

<i>Railway.</i>		£	s.	d.
Formation—61 chains at £5 10s.		335	10	0
Timber bridge of 30-ft. span and approaches (say)		450	0	0
Laying road, 61 chains, at £1,600 per mile		1,220	0	0
Culverts		80	0	0
Junction with existing line		100	0	0
Fencing—488 rods at 5s.		122	0	0
Supervision and contingencies (say).....		92	10	0
		£2,400	0	0
Add for resumption and severance (say).....		900	0	0
Total		£3,300	0	0
<i>Road.</i>		£	s.	d.
Clearing—50 chains at 6s.		15	0	0
Forming—50 chains at £1		50	0	0
Culverts and approaches.....		110	0	0
Metal—1,100 cubic yards at 2s. 6d. (say).....		137	0	0
		£312	0	0
Add for resumption and severance (say).....		300	0	0
Total		£612	0	0

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and further examined:—

2269. *Chairman.*] Do you wish to make a further statement? Yes. The proportion of the length of the Rosehill line up to Thompson's corner to the length from Westmead is as 5½ to 8. I was asked what it would cost to construct a line from Clyde to Dural, and I stated it at between £40,000 and £50,000. I think I gave the estimate yesterday as £42,000, confirming, therefore, what I had said before. I was asked by the Committee to separate the Rosehill portion from the other, and I now supplement my evidence by saying that Mr. Simpson's portion of the railway I should put down as £27,000. That includes the bridge. I have gone roughly into the question of the cost of bringing a line similar to the Camden line to Parramatta, and the following is the result: Outside Parramatta itself the line would correspond very nearly to the location of the tramway. The substitution of 5-chain curves would make very little difference, the grades being the same—1 in 20; but from the northern boundary to Parramatta into the station it would make considerable difference, and I would add £10,500. That would be for a railway running through streets with 5-chain curves—£38,500. I have shown on the map how there would be more resumption than with a tramway because the curves would not fit in as well. H. Deane.

2270. Does it mean this—that a line such as the Camden railway going into Parramatta would, mile for mile after it reaches the boundary of Parramatta, cost £10,500 more than one going into Westmead? No, £10,500 more than a tramway. Supposing that railway, instead of being brought into Parramatta, is to be brought into Westmead I find that it would cost very little more than the tramway itself—only about £3,500. Of course the Committee understand that these are very rough estimates. The map of

H. Deane. of Parramatta shows the lines coming in. The dotted red line is the proposed Westmead to Dural railway with 1 in 40 grades and 10-chain curves. The estimated cost of that is £57,400. If those curves are reduced to 5 chains in radius, and the grades remain the same—1 in 40—the cost is reduced to £44,000. The Parramatta-Dural tramway coming on the full red line is estimated to cost £28,000. That has grades of 1 in 20, and sharp curves of 3 chains. I made a mistake yesterday—it is 2 chains in the town. If, as suggested, this tramway were made on the same lines as the Camden tramway, with 5-chain curves instead of the sharp curve shown on the map, there would be more work involved. At the outside limit of the town, where we cross the creek, a deviation would have to be made, and in crossing the Parramatta River in the town itself, O'Connell-street would have to be preserved, and a curve made round into Macquarie-street, so that there would be two bridges instead of one. There would also be some work to do at the station, and I think altogether it would be found extremely difficult to make proper arrangements at the present station. Probably some extra resumption would be required in order to put in the necessary roads and platforms. The cost of that line would, roughly speaking, be £38,500. If, instead of coming right into the town, as indicated, a line were taken along the thin red line, or somewhere near it, the cost would be very much reduced. There would be about a mile in length of the tramway which would be cut out, and the bridge over the Parramatta River in the town would also be cut out. There would be a bridge over the Toongabbie Creek, and that would be all. I reckon that such a line on the Camden railway principle, with 1 in 20 grades and 5-chain curves, could be made for about £31,500. It would junction on the Parramatta side of Westmead station. I have included in that amount a certain sum for junction arrangements.

2271. *Mr. Hoskins.*] Do you know on what route would be the largest amount of land to be resumed? I should think it would be on the Rosehill line; but I do not think that would make much difference.

2272. *Mr. Roberts.*] Having in view that 5-chain curves have been taken up on the Camden tramway, it seems hardly the correct thing to get a price for a line having 5-chain curves upon it? I think they are workable; but they are certainly objectionable. I do not recommend 5 chains; but if the district is languishing for want of a railway, it might be desirable to put them down.

2273. *Chairman.*] You have given us an estimate of £31,500 for a line with a 1 in 20 grade eastward from Westmead;—if we determine not to have a grade under 1 in 40, should we be justified in adding on, as we have in the other instance, about £14,000? £12,500 is the amount.

WEDNESDAY, 9 FEBRUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.	CHARLES ALFRED LEE, Esq.
The Hon. JAMES HOSKINS.	JOHN LIONEL FEGAN, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	THOMAS HENRY HASSALL, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	GEORGE BLACK, Esq.
The Hon. DANIEL O'CONNOR.	FRANCIS AUGUSTUS WRIGHT, Esq.
HENRY CLARKE, Esq.	FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from the Terminus of the Rosehill Railway to Dural.

Robert Vernon Saddington, Secretary, Australian Kerosene Oil & Mineral Co., sworn, and examined:—

R. V. Saddington: 2274. *Chairman.*] The Committee desire to know the grades, curves, and the work you can do on the Joadja Tramway? We have a 3 ft. 6 in. gauge and curves of 5, 6, 8, and 10 chains radius. The grade is 1 in 22, 1 in 24 in several places, and a lot of 1 in 30. There are between 30 and 40 chains of 1 in 22; the other grades are short. We have a grade $1\frac{1}{2}$ mile long averaging between 1 in 24 to 1 in 30. The line is 16 miles long. The engines are 10 and 12 in. cylinders and weigh about 20 tons. We carry between 60 and 70 tons of shale to a load. Each truck carries about $2\frac{1}{2}$ tons. The trucks themselves weigh a little under 1 ton each. The gross weight of a train will be about 82 tons. On the 1 in 22 grade we have to use another engine to push the train up, but it happens that the 1 in 22 grade is near the terminus, and we sometimes take a few trucks off there. Except on this particular length the engines carry a load of from 70 to 80 tons over the greater part of the line. At the Joadja end we have a steep pull and 5-chain curves, and there we only carry seven to eight trucks at a time.

2275. Have you any passenger traffic? No. We have small passenger carriages which we put on occasionally.

2276. How long does it take you to cover the 16 miles without a load? About an hour, and one and a half hours with a full load.

2277. *Mr. Hoskins.*] Is the Joadja line at work now? Yes, but we are not very busy.

2278. *Mr. Wright.*] What is the greatest number of tons you have hauled in a day? I think we have carried 300 tons in from twelve to fourteen hours.

2279. With one engine? No, when we are busy we work with two engines. The line is not so well laid as are the Government lines. It is not metal ballasted all through. If it were better laid we could run faster, but the curves are too much for fast travelling.

2280. Presuming you were fully engaged, what would be the working expenses of a train per day? I could not say. Shale should be brought through for about 4s. a ton.

2281. What is the daily consumption of fuel? That depends on what load you carry, and how much you work the engines. When we are in full work we consume about 2 tons of coal a day.

John Charles Hunt, fruit-grower, Dural, sworn, and further examined :—

2282. *Mr. Farnell.*] You stated on a former occasion that you had obtained some information with regard to the feelings of the people in the district as to whether they would give the land on the proposed route? I have prepared a statement on the several questions asked by the Committee, and I will read it :—

J. C. Hunt.
9 Feb., 1898.

At the request of the Chairman of the Parliamentary Standing Committee on Public Works I have the honor to report on the following questions :—

- 1st. The cost of cartage of fruit from 1 to 14 miles.
- 2nd. Damage to fruit caused by cartage and loss from delay in placing it on the market.
- 3rd. The probability of the land through which the proposed railway would pass being given.

At a meeting of fruitgrowers called for the purpose of considering these questions, it was decided, from information obtained, that the cost of cartage would be for 2 miles, 1d. ; and for 14, 5d. per case. One of the growers present said that he was now paying 6d. per case for the cartage of his fruit from Kenthurst to Thornleigh—a distance of 12 miles ; and instances were given of several growers paying 5d. per case for from 7 to 8 miles.

In discussing the second question it was considered difficult to arrive at an estimate of damage done by causes named. In cases where fruit was unripe, very little damage, if any, would arise, but where fruit is packed in anything like a ripe state and fit for immediate use the damage is considerable—in many cases the fruit so packed has been found, on reaching the market, to be almost unfit for consumption. Under the present mode of transit fruit from Dural and surrounding districts is closed down for two nights and a day, and in some cases for three nights and two days before reaching the market. On this account much of the fruit is found to be damaged and brings much less than it would if it could be placed on the market the day after being pulled.

In reference to the probability of the land through which the proposed railway would pass being given, I have to report that in interviewing landowners it was found a few were willing to give their land or part of it, but in other cases the owners considered it unfair that they should be asked to give land, whilst residents who would be equally benefited would not contribute. In order to test the feeling of the district, as regards the purchasing of part of the land required, a fund for that purpose was started, and although all landowners were not waited upon, about £1,500 was promised to the fund.

It is desired to bring under the notice of the Committee the fact that there are large areas of Government land which would be enhanced in value by the construction of a railway. In the Carlingford district, and within a short distance of the proposed route, there are about 300 acres. In Dural, about 2 miles from the proposed terminus, there is an area of several hundred acres of fair orchard land. At Arcadia there are large tracts of land suitable for orchards. Part of this land is surveyed into blocks averaging 35 acres each, and described as being good. It is considered that this land would fetch £5 per acre. The greater portion of the whole of the Government land is reserved from selection.

The tract of country between Glenorie and Wiseman's Ferry has already been brought under the notice of the Committee, but it is desired that the Committee's attention should again be drawn to its importance. In proof that these lands would be settled upon, I beg to say that in the districts of Glenhaven and Arcadia inferior lands to these have been selected and are now supporting a considerable population.

2283. Are those the conclusions arrived at a meeting held the other day? Yes.

2284. Did that meeting represent the districts which will be affected by the construction of the railway? It represented most of them.

2285. *Mr. O'Connor.*] The principal centres of population? Yes, from Castle Hill out.

2286. *Mr. Farnell.*] Have you formed any opinion as to the quantity of land necessary to be taken between Carlingford and Dural? Seventy-two acres if the line is only a chain wide, and double that quantity if it is 2 chains wide.

2287. With regard to the cases in which you met with a refusal—are they cases in which the land is improved? We did not meet with any actual refusal. Nearly every one was willing to subscribe, but in many instances it was impossible to get at the owners.

2288. Have you formed an estimate of the value of the land? I think the Government valuation is over-estimated. If you were to take the valuation of the owners for taxation purposes you would find that it would be a great deal under what it is for railway purposes. I think the valuation with the improvements would not reach within £2,000 of the amount mentioned by Mr. Tunks. I think the estimate of £9,900 is excessive.

2289. If only 1 chain in width were required we might reasonably reduce the amount to one half? I think so.

2290. Have you thought out the question of adopting another route by which there would be less expense incurred in regard to land resumptions? There would be very little difference in the cost of resumption on any of the proposed routes. The land in the two districts is about of one value, excepting that in some distances it might run along frontages, and in others it might be further back on the holdings.

2291. *Mr. Wright.*] What particular districts were represented at the meeting to which you have referred? The districts of Castle Hill, Dural, Galston, Pennant Hills, Kenthurst, Glenorie, and Glenhaven.

2292. Were Baulkham Hills and Kellyville represented? No; we were advocating the Carlingford line. The league is formed for the purpose of advocating that line, and we are not connected with the other portions of the district.

2293. All the districts from Carlingford to Arcadia are on the route? Yes.

2294. *Mr. O'Connor.*] Could these two districts have been represented if they had chosen? It was not necessary to have any but a number of fruitgrowers together, because the questions to be considered were any which two or three fruitgrowers could answer.

2295. *Mr. Wright.*] All the places which would be affected by this proposal, from Carlingford out, were represented? Yes.

2296. *Mr. Lee.*] At the meeting of fruitgrowers held the other day, did you discuss the question whether the fruitgrowers would be willing to pay a larger train freight from Dural to Clyde than is proposed to be charged by the Railway authorities? Yes; and evidence has been given here to the effect that it would be to their interests to pay the amount stated—2d. per case.

2297. That would be 2d. from the extreme point? Twopence from Dural to Clyde.

2298. What about the points nearer to Clyde? I gave evidence in regard to the whole of the different districts.

2299. But that evidence has not been fully supported by other witnesses;—I understand you are representing the back districts generally as the secretary of the league? Mr. Harper touches on that question, and I wish to refer to it. Mr. Harper says he very much doubts whether the fruitgrowers would be willing to pay the amount stated. He went on to say that as soon as the line was constructed there would be agitations for a reduction. He also stated that he would be willing to take on the cartage of fruit at those rates all the year round. It is evident to anyone who understands the cartage of fruit that Mr. Harper knows nothing at all about it. We have given instances in which it costs 6d. a case, and it is impossible to get it down for less. If the Committee would take the trouble to add up the

- J. C. Hunt.
9 Feb., 1898.
- amount which would be earned in a day, they would find that at the rates we give only a fair day's wage could be earned by a man with his horse and cart if these extreme rates were paid. I wish you to understand that the charges are for the cartage of fruit to the railway station and the return of the empty cases. These statements can be verified, and I can give the names of the gentlemen who are now paying these rates from Kenthurst to Thornleigh. Mr. Tuggles is paying 6d. a case for that distance—12 miles. There are several small growers in the district who bring their fruit from the extreme north end—from Glenorie to the district of Dural. It is there drawn by larger growers to the Thornleigh station, and the whole of the charge for the selling and the cartage of the fruit is 1s. per case. The charge in the market is 6d. a case for selling and 1d. for trainage, which will leave 5d. for the cartage. That is done in many instances. There are fully twelve growers who send their fruit in this way from either Galston or Glenorie, and if they pay anything like this rate it will be to their interest to pay 2d. a case for the whole of the district at that end of the line. Those districts will embody Galston, Dural, Glenorie, and Kenthurst.
2300. How many cases at 2d. would there be carried? 218,000.
2301. The points between Dural and Clyde would expect a proportional reduction? I think so.
2302. So that the fruit from Carlingford would be brought down at about 1d. per case? Yes. From there they now pay 2d. a case by boat; and 1d. extra with the 1d. on the old line would be about the fare.
2303. Then you have 1d. per case to divide between there and Dural? Except at one point—the point where Kenthurst would join the line.
2304. You reckon that if 3d. per case were charged from Dural to Sydney and there were a corresponding increase between there and Carlingford it would meet the figures you have already submitted? My calculations are based on a reduction as the line comes towards Carlingford.
2305. Of course these calculations are in excess of the Departmental estimate? Yes.
2306. Would the fruitgrowers agree to pay that amount as an inducement towards the construction of the line? I think so.
2307. Would they agree to do so for a number of years? I could not tell unless I visited the district. But if a promise were made that the railway would be constructed if they would agree to pay that amount for so many years, I think they would agree to pay it.
2308. Do you think, under any circumstances, they would set up a dray competition for the Northern line if they could save a trifle in the cost of carriage? If anyone tried it they would not last long because it would not pay.
2309. It would be cheaper to send the stuff by the line at the prices stated by you? Yes.
2310. *Chairman.*] What is the distance from Galston to Hornsby? Seven to eight miles.
2311. And what is the charge? 3d. per case.
2312. What is the charge from there to Sydney? 1½d. per case.
2313. For railway purposes the charge from Clyde or Parramatta is the same as from Hornsby? It is 1d. per case from Parramatta.
2314. Therefore to cause them to use the main Western line and the railway from Dural you would have to get on the main line for 2d. per case from Galston? That is so.
2315. What is the distance from Galston to Dural by road? Three and a half miles from the turn off.
2316. The question arises as to whether the fruit carried from Galston to Dural by road, and then by rail, will be delivered better than it would be delivered if carried by road to Hornsby? It is a saving of 7 miles in favour of the Dural terminus.
2317. Against that you have the freight from Dural to Clyde? Yes, of 1½d. or 2d. per case. If you take the road from Galston to Hornsby you will find that it is a steep road. I think you could do three journeys to Dural and back whilst you did two journeys to Hornsby.
2318. That appears in the road carriage, which you say is a fair thing at 3d. per case? Yes.
2319. And if it costs you 1d. per case to get from Galston to Dural and 2d. per case to get to Clyde, you are in exactly the same position as if you went from Galston to Hornsby? But I do not think I have given evidence to the effect that 2d. per case is a fair charge by road from Galston to Hornsby.
2320. I took the charge to be 3d.? That would make it 4d. to Sydney.
2321. From Hornsby to Sydney the charge is the same as from Clyde to Sydney with the exception of ¼d. per case? With the advantage of the trip in. There is also the saving of time. The cartage to Hornsby and trainage to Sydney would be 4d. a case. The cartage to Dural would be 1d., then 2d. to Clyde, and 1d. to Sydney, which would also make 4d., and balance the two accounts; but they would save one journey in three by coming to Dural.
2322. Supposing the Carlingford line were taken as far as Pennant Hills to where the road turns to go to Beecroft or to Thornleigh, what would the effect on the fruit districts be? It would not benefit them very much.
2323. What I mean is this: If a line were constructed as far as Pennant Hills would people ship at Pennant Hills rather than use the road for the main Northern line,—you have told us already that it is worth about 1d. per case to do that 2 miles? Yes.
2324. If the line is constructed to Pennant Hills, since it costs 1d. per case to get from Pennant Hills to the main Northern line, it would pay a man to pay 1d. per case to go to Clyde, where he would get the same rate to Sydney as he would get from the Pennant Hills station? In some cases it would; in others it would not. Supposing you were already loaded, and that was not taken into consideration, perhaps 1d. would not pay for the 2 miles; but if you take the loading and preparing to start into consideration, I think it would. If the Rosehill line were extended to Dural on the Northern line as far as Mr. Moore's on the Great Northern Road, it would be a great benefit to the district.
2325. Do you think if the line were extended as far as where the main Northern road crosses the proposed railway there can be any doubt that they will use it from there instead of using the road to the main Northern line? No.
2326. How far is that point from Pennant Hills station? About 4½ miles.
2327. How far is it from Carlingford? About 6½ miles.
2328. Therefore, it is 2½ miles south from Dural? By road the distance would be greater than by the railway. It is nearly 9 miles by the proposed railway. It would be 2 or 3 miles further by the road.
2329. Is this what you mean—that the line from Clyde to Carlingford would be extended as far as the intersection

intersection of that line with the main Northern road before it would intercept the road traffic coming from Kenthurst and Dural? I think so.

J. C. Hunt.

2330. If it stopped short of that the people would prefer to go on the main Northern line? Under any circumstances they would.

9 Feb., 1898.

2331. The people at Ermington and Rydalmere, notwithstanding the fact that they have the main Northern line and the Western line in fair proximity, and are quite adjacent to the Parramatta River, prefer to cart their produce, passing by the river and the two lines of railway, into Sydney. Mr. Jenkins was asked the following questions:—

Chairman.] You stated just now that a considerable number of persons in your locality carted their fruit to Sydney? Yes. How far would they have to cart it? From the centre of Rydalmere to the post-office is 12 miles.

What proportion of the fruit is carted? So far as Rydalmere is concerned two-thirds of it, and the same with regard to Ermington. None of the growers there have very large places, and they try to make as much as they can by carting their own fruit. I do not know what the market dues and commission amount to.

Can you explain that? These men sell their own fruit in the market, and being within a certain distance, they can, by travelling in the night, get into the market in the early morning. Having perhaps only a little and ripe fruits they prefer to hurry it into the market and sell it themselves. The people around Rydalmere largely sell their own fruit in Sydney. I cannot understand Mr. Harper's evidence with regard to the amount of fruit governed by boats. He stated that 90,000 cases went by boat from Ermington. If two-thirds of the fruit grown goes by road—as stated by the mayor—there must be a very much larger production in proportion than in any other district, and yet Rydalmere is only a small district.

2332. You only claim the produce of Arcadia, Galston, Kenthurst, and Dural at 2d. per case? Yes.

2333. After that it is 1d. per case? Yes.

2334. Do you desire to add anything further to your evidence? Mr. Hill in his evidence has given the Committee to understand that some few years ago the residents of Castle Hill and district advocated a tramway. That tramway was not in connection with the Government system at all. It was a private concern started by the Parramatta Tramway Company. I have never yet attended any meetings to advocate the construction of a tramway; but I have attended to oppose it. There is a report in the local newspaper to the effect that I attended a meeting, but I certainly was not favourable to the proposal.

2335. *Mr. Hoskins.*] Would you prefer, in the interests of the district named, to have a railway constructed to Dural rather than a tramway from Parramatta to Castle Hill? Certainly. The evidence given by Mr. Hill appeared to discount the evidence given by other witnesses.

Christopher John Moore, fruit-grower, Castle Hill, sworn, and further examined:—

2336. *Chairman.*] What is your object in attending to-day? To deny Mr. Hill's evidence. I have been mentioned as one of those who attended a meeting in favour of the construction of a tramway from Parramatta to Dural. I attended that meeting, but I always opposed the construction of the tramway.

C. J. Moore.
9 Feb., 1898.

Elijah Ford Fuller, fruit-grower, Dural, sworn, and examined:—

2337. *Mr. Black.*] Is there anything you particularly desire to state to the Committee? I only wish to deny Mr. Hill's statement that I attended a meeting in support of the construction of a tramline from Parramatta to Dural. I have always been opposed to the construction of a tramway, and am in favour of the construction of a railway from Carlingford to Dural.

E. F. Fuller.
9 Feb., 1898.

2338. That is the scheme before the Committee? Yes.

2339. How long have you lived in the district? All my lifetime.

2340. How many acres of land have you? Ninety-one, of which 25 are under cultivation.

2341. Where do you send your fruit to? I truck it at Pennant Hills or Thornleigh.

2342. What saving would you effect if the railway came to Dural? It costs me now at the rate of 5d. or 6d. per case to cart my fruit from Dural or Pennant Hills or Thornleigh. If the line were constructed and the charge were 3d. per case, I would save 2d. per case. Besides that there would be the haulage back of manure, &c. It costs me 8s. to 10s. a ton for the haulage of manure from Pennant Hills or Thornleigh to Dural and the railway charge would be considerably under that.

2343. Would you also save the destruction of fruit? Yes.

2344. *Chairman.*] Where do you live? In the centre of Dural.

2345. And you pay 5d. a case? I do not pay it. I draw my own fruit, but I reckon that it costs me that.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

Railway from the Terminus of the Rosehill Railway to Dural.

APPENDIX.

A.

[To Evidence of T. R. Firth, Engineer-in-Chief for Existing Lines.]

12 January, 1898.

Cost of Line from Campbelltown to Camden.

In accordance with the request of the Public Works Committee I have the honor to supply the above information, as follows:—

	£	s.	d.
Construction of Line, including materials, buildings, surveys, and all charges ...	35,802	10	7
Land	3,334	14	3
Total	£39,137	4	10

Length, 7 miles 65 chains=£5,009 11s. 5d. per mile.

THOMAS R. FIRTH,
Engineer-in-Chief for Existing Lines.

The Secretary, Public Works Committee.

B.

[To Evidence of H. McLachlan, Secretary to the Railway Commissioners.]

PARTICULARS RESPECTING CAMDEN TRAMWAY.

Sir,

Office of the Railway Commissioners, Sydney, 4 February, 1898.

In compliance with the request of the Public Works Committee for information as to the financial result of the working of the Camden Tramway, I am directed to inform you that the particulars in regard to the transactions of the line are as under:—

	1896.	1897.
Length of line.....	8 m. 5 ch.	8 m. 5 ch.
Capital cost.....	£42,465	£42,675
Interest	1,486	1,494
Working expenses.....	2,761	5,107
Earnings	2,954	3,042
Loss after providing for working expenses and interest	1,293	3,559

It may be added that the expenditure for 1897 was exceptional, as extensive relaying was carried out, the cost of this service during the year being £2,468, as against £15 under the same head for the previous period.

I have, &c.

H. McLACHLAN,
Secretary.

The Secretary, Parliamentary Standing Committee on Public Works.

C.

[To Evidence of H. Deane, Engineer-in-Chief for Railway Construction.]

ESTIMATED COST OF LINES OF RAILWAY TO DURAL.

Railway Construction Branch, Public Works Department, Sydney, 5 February, 1898.

Rosehill to Dural Railway.

I AM directed by the Engineer-in-Chief to forward herewith tables showing particulars of the cost of different classes of lines. I am to state that it must be understood that the estimates are very rough, and that, to make them reliable, additional information would have to be obtained from the field.

The Secretary, Parliamentary Standing Committee on Public Works.

E. HUNGERFORD.

Rosehill to Dural Railway.

	1/40	10 c.	£
End of Simpson's line to Dural	1/40	10 c.	57,100
9·06 m.	1/40	5 c.	43,600
.....	1/20	5 c.	31,500
Pennant Hills to Dural	1/40	10 c.	53,800
8·28 m.	1/40	5 c.	40,400
.....	1/20	5 c.	30,000
Carlingford to Dural.....	1/40	10 c.	63,000
10·03 m.	1/40	5 c.	47,200
.....	1/20	5 c.	35,000
Westmead to Dural	1/40	10 c.	57,500
10·77 m.	1/40	5 c.	44,000
.....	1/20	5 c.	31,500
Parramatta to Dural.....	1/20	5 c.	38,500
Tramway.....	1/20	2 c.	28,000

Alternative

Alternative routes to Dural.

Name of line.	Distance from Sydney.	Length new line.	Estimated cost.	Average per mile.	Remarks.
Rosehill to Dural—	m. c.	m. c.	£	£	
Junction at Clyde	12 77·50	.....	.....	.....	*Amount to be paid for present line.
Length Rosehill and Simpson's.....	4 48·00	4 48·00	25,000*	5,435	
Additional new line to Dural	9 06·00	9 06·00	57,100	6,292	
Totals	26 51·50	13 54·00	82,100	6,004	
Pennant Hills to Dural—					
Junction at Pennant Hills	17 48·33	.....	.....	.....
Length of cross line	3 21·67	3 21·67	.....	.....
Additional distance to Dural	5 06·47	5 06·47	.....	.....
Totals	25 76·47	8 28·14	53,858	6,450	
Carlingford to Dural—					
Junction at Carlingford.....	14 55·00	.....	.....	.....	No reliable information about this portion. An approximate estimate of the whole taken at same rates as Rosehill to Dural extension.
Length of cross line	2 40·00	2 40·00	.....	.....
Additional distance to Dural	7 43·00	7 43·00	.....	.....
Totals	24 58·00	10 03·00	63,156	6,292	
Westmead to Dural—					
Junction at Westmead	15 30·00	.....	.....	.....
Additional length to Dural	10 77·00	10 77·00	57,475	5,243	
Totals	26 27·00	10 77·00	57,475	5,243	
Parramatta to Dural tramway—					
Junction at Parramatta.....	14 20·00	.....	.....	.....	Grades 1 in 50 against, and 1 in 25 with the load.
Length to Dural	12 14·00	12 14·00	28,959	2,379	
Total	26 34·00	.....	.....	.....
Length to Dural .....	.....	12 12·00	27,851	2,292	Grades 1 in 30 against, and 1 in 20 with the load.

Lengths on private property traversed by tramway:—By 1 in 50 and 1 in 25 grades, 4 miles 2 chains; by 1 in 30 and 1 in 20 grades, 2 miles 59 chains.

Department of Public Works, Railway Construction Branch, Engineer-in-Chief's Office,
Sydney, 9 February, 1898.

Rosehill to Dural Railway.

In reply to verbal inquiry, I have subdivided the estimates previously submitted, and beg to report that the cost of connecting the Great Northern railway near Pennant Hills station with a suitable point 21 m. 36½ c. on the submitted line will be £20,938.

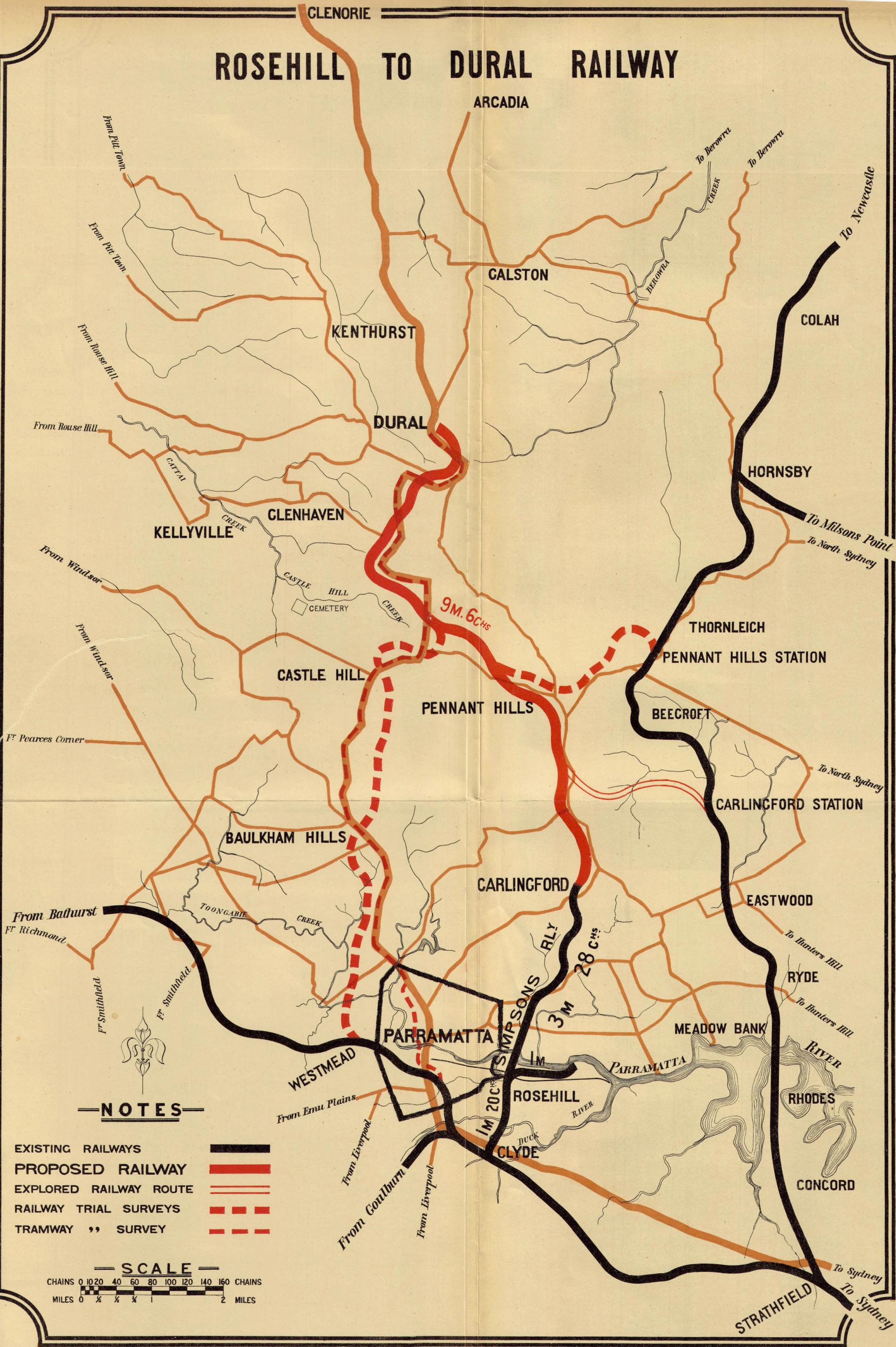
The cost of that portion of the submitted line between the end of Simpson's railway and the same point, 21 m. 36½ c., will be £24,180.

The Secretary, Public Works Committee.

C. O. BURGE,
for Engineer-in-Chief.

[One plan.]

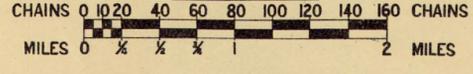
ROSEHILL TO DURAL RAILWAY



NOTES

- EXISTING RAILWAYS
- PROPOSED RAILWAY
- EXPLORED RAILWAY ROUTE
- RAILWAY TRIAL SURVEYS
- TRAMWAY " SURVEY

SCALE



1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

PARLIAMENTARY STANDING COMMITTEE ON
PUBLIC WORKS.

REPORT

TOGETHER WITH

MINUTES OF EVIDENCE, APPENDIX, AND PLAN,

RELATING TO THE

PROPOSED RAILWAY

FROM

KOORAWATHA TO GRENFELL.

Presented to Parliament in accordance with the provisions of the Public Works Act,
51 Vic. No. 37.

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

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Koorawatha to Grenfell Railway—Plan to accompany Sectional Committee's Report.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

RAILWAY FROM KOORAWATHA TO GRENFELL.

REPORT.

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS, appointed during the first Session of the present Parliament, under the Public Works Act of 1888, 51 Vic. No. 37, the Public Works Act Amendment Act of 1889, 52 Vic. No. 26, and the Public Works (Committees' Remuneration) Act of 1889, 53 Vic. No. 11, to whom was referred the duty of considering and reporting upon "the expediency of constructing a railway from Koorawatha to Grenfell," have, after due inquiry, resolved that it is expedient that the proposed railway be constructed; and, in accordance with the provision of subsection iv, of clause 13, of the Public Works Act, report their resolution to the Legislative Assembly:—

OFFICIAL DESCRIPTION.

1. The proposed railway is officially described as the first portion of a proposed line to Wyalong. Commencing at Koorawatha, on the Blayney to Harden Branch railway, it runs chiefly in a westerly direction, crossing the Crowther Range and the Tyagong Creek, and terminating at Grenfell in a Government reserve between the two main roads from Young to Grenfell. The length of the line is about 29 miles 60 chains.

The idea of constructing a line of this nature originated, the Committee are informed, in October, 1896, in a suggestion made by a Sectional Committee in their report upon the proposed Railway from Condobolin to Broken Hill. In that report it was stated that the Sectional Committee favoured a line from Cowra, or thereabouts, *via* Grenfell and Wyalong, to Hillston, and the Full Committee recommended the suggestion as one worthy of consideration, but pointed out that the fullest investigation was necessary before the State finally committed itself to any work entailing large expenditure. With the approval of the Minister for Public Works, a surveyor explored and reported on the country between Wyalong and Cowra, with a view to selecting the best route for a railway junctioning with the line between Cowra and Young; and the result of this survey was that, owing to formidable difficulties to be encountered in crossing the Browla Range, Cowra was reported to be unsuitable for a starting-point, and a recommendation was made that the line should commence at Koorawatha.

ESTIMATED COST.

2. The estimated total cost of the line is £89,250, or an average cost of £3,000 per mile. Earthworks are set down at £14,233; timber bridges and openings, £6,109; level-crossings, cattle-stops, and fencing, £3,951; permanent-way materials, £18,952; plate-laying, ballasting, and sleepers, £15,904; station works, £5,568; station buildings, &c., £6,295; the balance being made up of the cost of freight, water supplies, gradient and mileage posts, telegraph, miscellaneous, and engineering and contingencies. The last mentioned item calculated at 12½ per cent. represents an estimated expenditure of £9,917. Since this estimate was made the Engineer-in-Chief for Railway Construction has visited Grenfell, and decided that the railway station there should be near the town, instead of, as first proposed, 1¼ mile outside. This alteration can be carried out for £3,100, thus increasing the estimated total cost to £92,350.

RAILWAY

RAILWAY COMMISSIONERS' REPORT.

3. The Railway Commissioners report favourably upon the line, though their estimate of expenses and traffic returns shows an annual loss of £1,949. Interest on the capital expenditure they calculate at 3 per cent., which amounts to £2,667; and the estimated cost of maintaining permanent-way, and for traffic and locomotive expenses is £3,232, making the total annual cost, £5,909. The traffic estimate is £3,960, made up of goods, live-stock, and agricultural produce £2,650, passenger traffic £950, and mails £360. The Commissioners point out that while, according to the present estimate of traffic, there would be an annual loss of £1,949, the returns will more than meet the working expenses of the line, and that it is fair "to assume that the increased facilities afforded by railway communication will tend to increase traffic by stimulating the extension of cultivation and settlement, and thereby in time meeting in full both working expenses and interest." Nothing but a favourable impression, they say, can be formed as to the future prospects of the railway.

TRAFFIC PROSPECTS.

4. The traffic estimate stated in the Railway Commissioners' Report is based upon the following figures prepared by the Chief Traffic Manager:—

	£	s.	d.
Goods—1,000 tons, at 10s.	500	0	0
Wheat and hay—2,500 tons, 15 miles, at 2s.	250	0	0
" 2,000 " 20 " 2s. 6d.	250	0	0
" 4,500 " 30 " 3s. 6d.	787	10	0
Wool—1,350 tons, at 5s.	337	10	0
Stock—500 trucks, at 15s.	375	0	0
Passengers—5,000, at 3s. 9d.	937	10	0
Sundries	150	0	0
Mails	360	0	0
Total	£3,947	10	0

The rate for grain is an arbitrary one, similar to what has been adopted on the Berrigan railway, and the stock rate is an arbitrary rate based upon what is charged on one or two of the existing branch lines. The other rates in the list are extension or through rates.

There is a fair amount of settlement within the traffic area on either side of the route of the proposed railway, and the soil being good and the average rainfall satisfactory, the district is one in which, with railway facilities, settlement should increase considerably. Many of the farmers work the land on the share or halves system, and the success attained under this system indicates that the practice is likely to extend. The Sectional Committee, who visited the district, learned from the evidence given before them, that adjacent to the route of the line there is a very considerable area of land under cultivation, and that preparations are being made to greatly enlarge that area. Of three station properties in the neighbourhood, one, with an area of 30,000 acres, has 5,000 acres prepared for the plough; another, of 30,000 acres, has 17,500 acres in a similar condition; and the third, with an area of 16,000 acres, has 9,000 ready for cultivation.

Though the settlement is not, at present, what may be termed close, "there can be no doubt," the Chief Traffic Manager reports, "that, with the exceptionally favourable circumstances of soil and rainfall, the facilities for marketing produce associated with railway communication would bring about a large development in agriculture." The district, is also, he points out, "one so well suited for stock that the improved carrying capacity which invariably accompanies clearing and tillage would add very materially to the wool and fat stock production of the trafficable area of the line."

According to statistics furnished from the office of the Government Statistician, the area cultivated in the Grenfell district in 1896 was 23,000 acres, and the yield 213,171 bushels; but, taking the Grenfell and Bimbi districts together, the area was 28,375 acres, the principal crop being wheat—the area under wheat 24,815 acres, and

and the yield 229,402 bushels. For the past season the estimate for the two districts is 29,546 acres under cultivation, and the yield 344,556 bushels. Of these figures Grenfell is credited with 27,300 acres, yielding 327,600 bushels. The Chief Traffic Manager is confident that in a very short period the production of wheat in the district around Grenfell, and between Grenfell and Koorawatha, will be doubled,—a condition of circumstances which will very considerably reduce the deficiency shown in the traffic estimates of the proposed railway, and still further add to the earnings on the main Southern Railway.

THE SHARE SYSTEM.

5. The share system, practised in connection with a large proportion of the farming in the Koorawatha-Grenfell district, is, by some persons, regarded as somewhat uncertain. To these there appears, under the agreement between landlord and tenant, an absence of permanency in the occupation of the land, and a possibility of, in a few years, exhausting the productiveness of the soil. But the evidence before the Committee does not bear out this idea. The system is simple, and apparently satisfactory to both the parties concerned. Though occupiers of some of the holdings may, at their own instance or that of the landlord, leave the land, others will take their places, and cultivation will not cease. As fast as the land can be cleared for cultivation there is no difficulty whatever, the Committee are informed, in finding tenants.

CROWN LAND IN THE DISTRICT.

6. Among the circumstances regarded by the railway authorities as favourable to the construction of the proposed railway is that, within the traffic area of the line, there is a large extent of Crown land.

Evidence given before the Committee by the Chief Draftsman, Department of Lands, shows that within an area of 20 miles each side of the route of the line, converging to a point at Koorawatha in order to exclude the area under the influence of the existing line from Cowra to Young, there are 92,820 acres of Crown land, 142,330 acres of reserves, 17,260 acres of settlement and improvement leases, and 531,960 acres of alienated land. The Crown land consists of 55,680 acres of leasehold areas, expiring during the period 1898 to 1900, 33,120 acres held under occupation license, and 4,020 acres untenanted.

MINING.

7. Grenfell has been an important gold-mining centre, and the Chief Inspector of Mines was examined with regard to its future as a gold-field. That officer expressed the opinion that sooner or later Grenfell will again become one of the leading gold-fields of New South Wales, as it is probable the reefs will yield payable returns at a greater depth than that at which they have been tested up to the present. Witnesses examined by the Sectional Committee were equally favourable in their evidence regarding the mining possibilities of the district.

COMPENSATION FOR LAND.

8. The compensation which will have to be paid for land taken for the railway is said to be about £1,000. On one estate the land would be given free of cost; and, in other cases, arrangements can be made for an exchange, Crown land or roads being given in lieu of the area taken. It is where the line passes through small properties that a money compensation must be paid; but, although no definite statement can be made, it is believed the total amount will not exceed the sum stated.

A RAILWAY FROM YOUNG TO GRENFELL.

9. A railway from Young to Grenfell has been advocated before both the Full Committee and the Sectional Committee, on the grounds that a line between the two places has been twice surveyed, with the result that the latest survey known as the "white line" has been adopted by the Department; that settlement has taken place in consequence of these surveys, and is now of such an extent that the holdings
along

along the route are much more numerous than between Koorawatha and Grenfell; that the population between Young and Grenfell is greater than between Koorawatha and Grenfell; and that Grenfell is naturally a point of connection for a federal railway between Young and Werris Creek, 24 miles of which line are already laid between Forbes and Parkes.

The Sectional Committee explain in their report that the route for this line leaves the present railway system at an acute angle, by reason of which it remains for a greater length than is desirable within the influence of an existing railway. For the first 12 miles or more, out of a total distance of 32 miles, the residents between the two lines would be not more than 6 miles from one route or the other. The land along the route is suitable for either pastoral or agricultural settlement; but, while they found that small holdings are more numerous than on the Koorawatha route, cultivation is less. There is, however, a larger population. The cost of the line from Young would be slightly larger than that of the line from Koorawatha, the estimated difference being £177 per mile; and the distance from Grenfell to Sydney, *via* Young, would be longer by 41 miles than it would be *via* Koorawatha. The distance from Koorawatha to Sydney, *via* Blayney, on the Western railway, is 236 miles, and *via* Harden, on the Southern railway, 277 miles; and, although, when convenient, the Commissioners might work the traffic over the Southern line, they would not charge for the longer distance.

Before the Sectional Committee, it was contended by residents of Young that the Koorawatha to Grenfell line would reduce their present trading limits; but, as explained in the Sectional Committee's report, it was found that the utmost Young can lose in this way is the trade from an area of about 12 by 16 miles, part of which trade is at present uncertain. Though impressed with the importance of Young, and the possibilities of the district, it did not appear to the Sectional Committee that either town or district would be materially injured by the construction of the line from Koorawatha. From a traffic point of view, a line from Young is not so satisfactory as one from Koorawatha, for it is pointed out by the Chief Traffic Manager that if the Young connection were made there would be little traffic on the line, as, taking the shorter distance to Cowra by rail from Sydney, the haulage of goods between Cowra and Grenfell would be done at a less cost than that at which the Railway Commissioners could carry the goods, charging a rate through from Sydney to Grenfell.

A LINE FROM COWRA TO GRENFELL.

10. Reference has been made to a route for a railway from Cowra to Grenfell. Though such a line would bring Grenfell within a shorter distance of Sydney, it would be some miles longer than that proposed from Koorawatha, and would not serve the same extent of country; but the strongest reason against it is stated by the Engineer-in-Chief for Railway Construction, who explains that a very awkwardly situated range between the two places would make it difficult and costly, if not impossible, to obtain the necessary grade.

AN EXTENSION TO WYALONG.

11. Communications were received from Cootamundra and Barmedman on the subject of railway connection with Wyalong. The Cootamundra District Council are of opinion that the proposed line from Koorawatha to Grenfell will eventually conflict with the interests of the district in regard to an extension to Wyalong and Hillston, and the Barmedman Railway League were anxious to be heard in relation to any proposal relating to Wyalong. The District Council at Cootamundra do not oppose a railway extension to Grenfell, but they view the fact of starting from Koorawatha as directly affecting the question of an extension of the Cootamundra-Temora railway to the west, which they consider was contemplated when the railway to Temora was constructed. They and the residents of Barmedman were informed by the Committee that it had been decided that the question of a railway from Koorawatha to Grenfell was not necessarily connected with that of an extension beyond Grenfell towards Wyalong, and therefore it did not appear to the Committee that the interests of Cootamundra were materially affected by the Koorawatha-Grenfell proposal.

CONCLUSION

CONCLUSION ARRIVED AT BY THE COMMITTEE.

12. From the evidence before them, the Committee are of opinion that the proposed railway should be constructed. Though for some time it will be worked at a loss, there are strong indications that ultimately it will pay both working expenses and interest. The Chief Traffic Manager expresses the opinion that it will reach this point within five years. The Railway Commissioners unmistakably favour its construction, and the inspection by the Sectional Committee of the route, and of the district the line will serve, supports the view taken by the Commissioners. The conclusion arrived at by the Committee is shown in the following extract from the Minutes of Proceedings:—

“Mr. Fegan moved—‘That, in the opinion of the Committee, it is expedient the proposed Railway from Koorawatha to Grenfell, as referred to the Committee by the Legislative Assembly, be carried out.’”

“The motion was seconded by Mr. Clarke, and passed.”

THOS. EWING,
Chairman.

Office of the Parliamentary Standing Committee on Public Works,
Sydney, 1st April, 1898.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

MINUTES OF EVIDENCE.

RAILWAY FROM KOORAWATHA TO GRENFELL.

MONDAY, 20 DECEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANK FARNELL, Esq.

The Committee proceeded to consider the expediency of constructing a line of Railway from Koorawatha to Grenfell.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and examined:—

1. *Chairman.*] Have you a statement with reference to the proposed Railway from Koorawatha to Grenfell? Yes. H. Deane.
20 Dec., 1897

This line is the first portion of a proposed railway to Wyalong. It joins the Blayney to Harden Branch railway at Koorawatha, and running chiefly in a westerly direction crosses the Crowther Range and the Tyagong Creek, and ends at Grenfell in a Government reserve between the two main roads from Young to Grenfell.

The district traversed by the line supports a large and growing agricultural population.

The length of the line is about 29 miles 60 chains, and its estimated cost which is somewhat high owing to several stations being required, is £89,250 or £3,000 a mile, exclusive of land and compensation.

This proposal originated in October, 1896, in a suggestion made by the Parliamentary Public Works Committee in their report upon the proposed railway from Condobolin to Broken Hill, and by Mr. Greene, M.P. With the approval of the Minister, Mr. Surveyor Jamieson was sent to explore and report on the country between Wyalong and Cowra, with a view to selecting the best route for a railway junctioning with the line between Cowra and Young. Mr. Jamieson reported that Cowra was unsuitable for a starting point, owing to the formidable difficulties to be encountered in crossing the Browla Range, and recommended that the line should commence at Koorawatha.

On the Engineer-in-Chief's recommendation the Minister approved of a survey being made, and in January, 1897, Surveyors Little and Lloyd were instructed to start it.

On the 11th January, 1897, Mr. W. H. Bradey, Secretary to the Wyalong Railway League, wrote stating that the League would support a line *via* Grenfell.

On the 10th May, 1897, the President of the Grenfell Railway League furnished statistical information as to the products of the district.

On the 23rd June the Engineer-in-Chief forwarded a report in which the direct route to Grenfell from Koorawatha is pointed out as being preferable to another which joined the abandoned survey of a line from Young to Grenfell.

On the 27th July, 1897, Mr. Greene, M.P., forwarded undertakings from residents undertaking to give, exchange, or sell any land required for the line.

On the 14th October, 1897, the Engineer-in-Chief reported that the plan and estimate of line from Koorawatha to Grenfell would be ready for submission in a week.

Early in December, 1897, the plans and estimate of the line as far as Grenfell were submitted by the Engineer-in-Chief to the Minister, and the Railway Commissioners were asked to furnish a report in terms of the Public Works Act. This report was submitted on the 6th December, and is as follows:—

Office of the Railway Commissioners of New South Wales, Sydney, 6 December, 1897.

Proposed line of Railway, Koorawatha to Grenfell, 29 miles 60 chains.

In accordance with the provisions of the "Public Works Act of 1888," Section 13, we beg to report as under:—

Cost of Construction—

The Engineer-in-Chief estimates the cost of construction of a single line of light railway (exclusive of land and compensation) at £89,250

Annual Cost—

Capital expenditure at 3 per cent. £2,677
Estimated cost of maintaining permanent-way, and for traffic and locomotive expenses 3,232

Total annual cost £5,909

Traffic Estimate—

Goods, livestock, and agricultural produce £2,650
Passenger traffic 950
Mails 360

Total estimated traffic £3,960

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H. Deane.
20 Dec., 1897.

"It will be observed from the foregoing figures that the estimated traffic more than meets the working expenses of the proposed railway; but taking into consideration the interest charged, there will, on the present volume of traffic, be an annual loss of £1,949. It is, however, fair to assume that the increased facilities afforded by railway communication will tend to increase traffic by stimulating the extension of cultivation and settlement, and thereby in time meeting in full both working expenses and interest.

In dealing with the line as submitted it appears to us some reference should be made to the general aspect of the question. Apparently the line could not remain permanently at Grenfell, but must eventually be extended westwards to Hillston. Consequently the question arises whether it should not, *en route*, connect with Wyalong. This would involve the consideration of the previously urged connection of this place with Temora.

On these matters we have not been asked to report, and therefore only refer to them as questions worthy of notice before any final decision is arrived at.

As regards the line Koorawatha to Grenfell, in itself, nothing but a favourable impression can be formed as to its future prospects."

The Common Seal of the Railway Commissioners of
New South Wales was hereunto affixed, this
sixth day of December, one thousand eight
hundred and ninety-seven, in the presence of—

J. S. SPURWAY.

{ CHARLES OLIVER,
Chief Commissioner.
W. M. FEHON,
Commissioner.
DAVID KIRKCALDIE,
Commissioner.

On the 9th December, the Minister tabled a motion for the submission of the line to the Public Works Committee which was carried.

2. The Railway Commissioners have expressed no opinion with regard to the question whether the connection should be from Temora to Wyalong, nor did they express an opinion as to the Young-Grenfell connection *versus* Grenfell-Koorawatha? No.

3. *Mr. Roberts.*] Have you been over the proposed line? Not yet. I have gone very carefully into the plans and estimates, and the reports of the surveyors, but I am not satisfied to appear before the Committee on the engineering question until I have had an opportunity of going over the line, which I intend to do some time in January.

4. What is the total length of line from Koorawatha to Grenfell? Twenty-nine miles 60 chains.

5. And the estimated cost? £3,000 per mile.

6. What is the reason of the increase as compared with other light lines of railway that have been submitted to the Committee? The country is altogether different. It is of a much more undulating character; in fact there is a low range to go over which necessitates grading and earthworks. Then the line not being a long one the station work, divided over the length, adds considerably to the cost per mile.

7. Are you able to tell the Committee whether the Minister for Public Works has submitted this line to the Committee after having given every consideration to other routes, such as one from Young to Grenfell or from Temora to Wyalong. I ask you this question, understanding that Hillston is the objective point? It is understood that this line will be extended westward; in fact, a survey has been practically completed as far as Wyalong.

8. By way of Grenfell? Yes. This route has been selected as being the best to serve the country required, that is the wheat-growing district between Grenfell and the Cowra and Blayney line.

9. Understanding that you are speaking now on behalf of the Under Secretary of the Department, are you able to say that it has been decided that the line shall ultimately reach Hillston? No, I cannot say that.

10. But you can say positively that it is decided to go to Wyalong? No; I cannot say that it has been positively decided to go to Wyalong, but it has been decided to have a survey as far as that point, so that the scheme can be submitted to Parliament. I believe I am right in saying that if the survey had been finished as far as Wyalong before, and the plans prepared, the whole of the line would have been submitted with the present proposal.

11. When I say "decided to go to Wyalong," I mean decided to submit the question to the Public Works Committee? The Minister intended to do that if the plans were ready, but unfortunately they were not.

12. What is the estimated annual loss on the proposed line? £1,949 as estimated by the Railway Commissioners.

13. After providing for interest and including all charges? Yes. I think it is only fair to say that the Railway Commissioners make a point of never over-estimating traffic.

14. Does the estimated traffic more than pay working expenses? Yes.

15. By what amount? The working expenses amount to £3,232, and the estimate of traffic is £3,960, leaving a margin of £728.

16. Is it not a fact that if a line will more than pay working expenses the Railway Commissioners, as a rule, feel justified in recommending it, if the prospects are favourable as to future traffic? I think they have frequently done so.

17. Have the claims of the people of Temora for a line from Temora to Wyalong by way of Barmedman received every consideration from the Department of Public Works? I think so. The line has been submitted twice to the Public Works Committee.

18. Do you know of any request being recently made by the Temora people that they should be afforded an opportunity of putting forward their claims for railway communication before any decision is arrived at? I am not aware.

19. Is the rich part of the country to be found as you get near to Grenfell? It is between about one-fourth and one-third of the distance out from Koorawatha.

20. Have you any report describing the country between Koorawatha and Grenfell? No; but I can furnish the Committee with the surveyors' reports if desired.

TUESDAY, 21 DECEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
 The Hon. JAMES HOSKINS.
 The Hon. CHARLES JAMES ROBERTS, C.M.G.
 The Hon. WILLIAM JOSEPH TRICKETT.
 The Hon. DANIEL O'CONNOR.
 HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
 JOHN LIONEL FEGAN, Esq.
 THOMAS HENRY HASSALL, Esq.
 GEORGE BLACK, Esq.
 FRANCIS AUGUSTUS WRIGHT, Esq.
 FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Koorawatha to Grenfell.

Hugh McLachlan, Secretary to the Railway Commissioners, sworn, and examined:—

21. *Mr. Black.*] Have you prepared any statement? A report has been submitted by the Railway Commissioners in accordance with the Act, and I understand it has been laid before the Committee.
22. Have you anything to add to that? No.
23. I see that the charge for interest on capital expended is put down at 3 per cent. In the case of other lines, that from Warren to Coonamble for instance, the charge has been $3\frac{1}{4}$ per cent., and sometimes it has been $3\frac{1}{2}$ per cent. What is the reason for this dissimilarity in the charges for interest? I think you will find that the charge varies according to the date. In the case of the Warren to Coonamble line, the report was made nearly eighteen months ago. The money market having since become easier, the Commissioners estimate the interest at 3 per cent.; they think that is about the present value of money. Even if you put it at $3\frac{1}{4}$ per cent., that would only make a difference of a couple of hundred pounds. In all recent cases, the charge for interest has been put down at 3 per cent.
24. The report of the Commissioners on the Warren to Coonamble railway is dated 23rd June, 1896;—do you think money was a quarter per cent. dearer then than it is now? The rate of interest sometimes alters in a period of eighteen months, and the Commissioners think that, in this instance 3 per cent. is a reasonable estimate. In the case of the city railway, the charge is put at 3 per cent.
25. Do you think that the money, with all the charges for brokerage, interest, &c., would cost only 3 per cent.? Yes; the Commissioners think that 3 per cent. would be a reasonable sum.
26. Do you think that would sufficiently cover this item? Yes; the Commissioners think so.
27. Have you any personal knowledge of the proposed railway? No; I have not been over the line.
28. Then you have no knowledge as to its merits, compared with any other suggested route? Not personally.
29. *Mr. Hoskins.*] Do you happen to know whether the Commissioners are favourably disposed towards the construction of a railway from Koorawatha to Grenfell? Yes.
30. Do they recommend the construction of the railway; and, if so, on what grounds? The Commissioners in their report estimate the cost of construction at £89,250. Under the head of "Annual cost" they put down interest on capital expenditure at £2,677, and the cost of working the line at £3,232, and they estimate the traffic at £3,960. Then they make these remarks:—

It will be observed from the foregoing figures that the estimated traffic more than meets the working expenses of the proposed railway; but taking into consideration the interest charged, there will, on the present volume of traffic, be an annual loss of £1,949. It is, however, fair to assume that the increased facilities afforded by railway communication will tend to increase traffic by stimulating the extension of cultivation and settlement, and thereby, in time, meeting in full both the working expenses and interest. In dealing with the line as submitted, it appears to us some reference should be made to the general aspect of the question. Apparently the line could not remain permanently at Grenfell, but must eventually be extended westward to Hillston. Consequently the question arises whether it should not, en route, connect at Wyalong. This will involve the consideration of the previously urged connection of this place with Temora. On these matters we have not been asked to report, and therefore only refer to them as questions worthy of notice before any final decision is arrived at. As regards the line, Koorawatha to Grenfell, in itself, nothing but a favourable impression can be formed as to its future prospects.

31. Speaking of this short length of 29 miles the Commissioners are favourably disposed towards it? Yes.
32. And they think that ultimately it will become a paying line? Yes.
33. Do you know whether the Commissioners have travelled over the country between Koorawatha and Grenfell? Yes.
34. Do you know whether the Commissioners have ever considered whether it would not be better to take the railway from Young to Grenfell rather than from Koorawatha to Grenfell, seeing that that would be the means of taking such traffic as the Grenfell district would produce over the southern line instead of the western line? Yes, they have considered it. The only reference to them was the line from Koorawatha to Grenfell, and they, therefore, did not go over the line from Young to Grenfell. But there are a number of advantages in favour of Koorawatha. That, of course, is the nearest route to Sydney. Sydney must be the centre. Although it would be about 12 miles further to work the traffic over the southern line, still the Commissioners think the public, to be served by the railway, should get the benefit if possible of the lower rates. The Commissioners would, when convenient, work the traffic over the southern line, but, at the same time, they would not charge for the longer distance. There is another advantage—you would have the double connection. You would have the shorter connection as well as the southern line connection. It is shorter by way of Koorawatha, and the Commissioners think the public should have the cheapest way of getting to market where it can reasonably be given. They would only charge such rates as would apply on the shorter distance, so that really it would be a public benefit to the district. The Commissioners might find it more convenient to work the traffic along the southern line, but they would only charge the public for the shorter distance, and in that way the public would get the benefit of a better rate. There is also this advantage: west of Grenfell there is an important mining district which would, no doubt, have some bearing on the question. There would probably be some ore and coal traffic between the western coal-mines and this mining district, and, consequently, it would be of advantage to have the nearest connection with the western mines. Apart from that, the Commissioners, although they have not gone specifically into the question, because it has not been referred to them, are of opinion that a better district would be opened up by the line from Koorawatha to Grenfell.

H.
 McLachlan.
 21 Dec., 1897.

H.
McLachlan.
21 Dec., 1897.

35. What is the extensive mining district to the west to which you refer? Wyalong.
36. I suppose you are aware that the Public Works Committee has, on two previous occasions, reported against the construction of a railway from Temora to Wyalong? Yes; and the Commissioners have reported against it also.
37. If the extension to Grenfell were made from Koorawatha there would be a shorter distance to take the Lithgow coal to the mining districts of Wyalong and Temora than would be the case if the other route were adopted? Yes.
38. Can you say whether the country between Koorawatha and Grenfell is more difficult for railway construction than that between Young and Grenfell? I believe neither line presents any engineering difficulties. The information we had from the engineers was to the effect that both of these lines are comparatively level, the worst grade being 1 in 75.
39. *Mr. Lee.*] The Commissioners take up the position that if this line is sanctioned, it is not reasonable to suppose it will remain at Grenfell? They do not say there is likely to be an extension at once; but, looking into the future, they are inclined to think the railway would go further westward.
40. Do the Commissioners, or do they not, recommend this line as a short line only? For the present, yes.
41. But with the view of its capability of being extended into a profitable country? Yes; but even as a local line they recommend its construction.
42. Even if it were adopted as a cockspur line, they see every possibility of its paying? In future, yes.
43. But they do not adopt the policy of recommending it as a cockspur line;—they say that it has an ultimate extension before it? Yes.
44. I believe your Department has been considering for some time the question of opening up the western country to Hillston? Yes.
45. Would it appear, from the present report, that they favourably entertain the idea of connecting Hillston across country by means of this route? That project has not been definitely referred to them.
46. But they say in this report that this line must eventually be extended westward to Hillston? Yes; that is their opinion.
47. Should we not be justified in inferring from that that they consider that if the line is to be taken to Hillston it should be extended by that route? That is their present opinion. They went over the line from Grenfell to Wyalong, but they did not go from Wyalong to Hillston.
48. There was a proposal to go from Condobolin to Euabalong, and the Commissioners condemned that; some time ago there was a proposal to go from Temora to Wyalong, and the Commissioners were opposed to that; therefore they have not been in agreement with any previous proposal to reach the western country under the references that have been made? That is so.
49. Would it not appear that they are favourable to an extension of the line to Hillston, that being a westerly point, by means of the route of which Koorawatha to Grenfell would be a portion? Yes; that is the opinion they entertain—that, as far as they can see, the best extension would be from Grenfell west towards Hillston.
50. If this Committee should commit the country to an extension to Grenfell, and that should involve a further extension to Hillston, would not that serve the purposes of the western country, if it were carried out? That is the opinion of the Commissioners. They do not like to state it absolutely; but so far as they can see they incline to an extension westward, towards Hillston. The matter not having been referred to them, it would be beyond their function to recommend an extension beyond Grenfell; but they say incidentally that they think the line will not stop at Grenfell, but it will be found advantageous later on to go westward.
51. The line would appear, at first, to show a loss of some £2,000 a year? Yes.
52. I presume the Commissioners are of opinion that the agricultural prospects between Koorawatha and Grenfell, and the vicinity, are sufficient to justify the belief that this loss would be made good in the course of a short time? Yes. You have the general feeling of the Commissioners, that where a line more than pays its working expenses, and goes into an agricultural district, they would, under certain circumstances, be prepared to recommend the construction of a branch line, which line should be considered on its merits. In addition to the purely local traffic, there must be a certain advantage to the parent line which it is difficult to set out in figures; and the Commissioners are assured that if this line were made, there would be a considerable increase in the cultivation of the district. You are very often told, in dealing with a proposed railway, that if the line were made, cultivation would follow; but in this case the cultivation actually exists, and development has already taken place to a large extent. So that it is not a matter of experiment; you have already a very fair earnest of success.
53. In other words, the produce of the Grenfell district, which is at present carried by dray to the nearest railway station, would be borne by the railway if constructed? To a large extent, yes.
54. And if that produce were carried, together with the incidental trade, the deficiency on the line would be about £2,000 a year; but the Commissioners are of opinion that the district offers such advantages that, with the increase of agriculture, a very few years will be sufficient to convert that loss into a profit? Yes, that is their opinion.
55. *Mr. Wright.*] Can you give the Committee any idea what the grades are between Blayney and Koorawatha? No, not from memory.
56. I understand you to say that the Commissioners favour the Koorawatha route in preference to the Young route, because the former is nearer to Sydney? Yes. As I have already mentioned, the Commissioners have not reported on the Young route; but, judging from conversations I have had with them, I may say that in a general way they are in favour of this route, although they have not been asked to express any opinion in regard to the rival route.
57. They are in favour of this as being the shorter route to Sydney? Yes; the public will get the advantage of the cheaper rates.
58. Are the Commissioners always dominated by that idea in recommending the construction of railways? They are always dominated by the desire to do the best they can for the country.
59. The difference between the distance from Grenfell to Sydney, *via* Young, and from Grenfell to Sydney, *via* Koorawatha, is about 12 miles? Yes.
60. What about the traffic; would that be easier of accomplishment on the southern than on the western route? Yes; it would be more convenient for us to take the traffic on the southern line as a general rule.

H.
McLachlan.
21 Dec., 1897.

61. As a matter of fact, the haulage on the southern route costs less? That would be very difficult to say. The greater traffic is taken over the western line; we could more conveniently carry this traffic over the southern line.
62. Have the Commissioners been over the road between Grenfell and Wyalong? Yes.
63. Recently? Yes.
64. And they think that this railway should be constructed as a portion of the line to tap the western country lying between the Lachlan and the Murrumbidgee? That is what they have indicated.
65. *Chairman.*] Does not the proposed line going from Young to Grenfell pass away from Young gradually over the Blayney to Murrumburrah line? Yes; 4 miles of the existing line would be used on the route from Young.
66. In going away on a route such as that under consideration from a line like the one from Blayney to Murrumburrah, it is well to go right away, or to go away at an angle? I should say it would be better to go away at a right angle.
67. What would be the advantage? If you went away parallel with the existing line, it would not be of so much advantage as if you ran at right angles into a country where you have to reach a certain point.
68. How far is Grenfell from Young? Thirty-four miles; but 4 miles of that would be part of the existing line.
69. Therefore, the length of the line to be constructed would be 31 miles, as against 29 miles and 60 chains from Koorawatha to Grenfell? Yes; it is practically 30 miles in each case.
70. Therefore, if there were a railway station at Grenfell, there being one at present at Young, anyone living midway between those two places, directly on the line of route, would be within 17 miles of railway communication? Yes.
71. And the same thing applies between Grenfell and Koorawatha? Yes.
72. But if the line were brought from Young to Grenfell as shown by the dotted line, then anyone between Koorawatha and Grenfell would be within 17 or 15 miles of a railway station? Yes.
73. And the same thing applies on the other route? Yes.
74. It is just a question between the two routes as to where you get away quickest into new country? Yes.
75. *Mr. Humphery.*] Will much of the Wyalong traffic be diverted from the Temora line to the Grenfell line? I do not think so.
76. Have you taken that into consideration in your estimate of the probable earnings of this line? No; nothing has been allowed for any traffic so diverted.
77. Will the loss be increased by the traffic being diverted from the Temora line? Of course the earnings of this line would be increased if we diverted traffic from Wyalong; but nothing has been allowed for Wyalong traffic on this local line.
78. Would you not think that that should be taken into consideration in estimating the probable loss—you say that there will be a loss on this line? Yes.
79. The earnings of the Temora line will be diminished? The Commissioners do not anticipate that there will be any alteration in the direction of the present traffic, and they have not allowed for the Wyalong traffic in the estimate for this line.
80. They think the whole of the Wyalong traffic will still go by Temora? Yes, practically the whole of it.
81. Although the difference in distance would be very slight? It is 20 miles.
82. What is the distance from Wyalong to Grenfell? From Temora to Wyalong the distance is 40 miles. From Grenfell to Wyalong by the most direct route the distance is $57\frac{1}{2}$ miles—that is, *via* Bimbi. So that it is practically 40 against 60.
83. Therefore, until the Koorawatha to Grenfell line is extended the Temora line will not be affected? I think not.
84. Can you say to what extent it will be affected by the extension of the line westward from Grenfell? I should think if the line were so extended, it would take, practically, the whole of the Wyalong traffic, because then the distance from Wyalong, *via* Grenfell, to Sydney would be shorter than the distance *via* Temora. This is the shortest route to Wyalong.
85. Can you say what percentage of the whole of the traffic on the Temora-Cootamundra line comes from Wyalong? I could not say.
86. Is it not possible to distinguish between the earnings of the railway line from Temora as compared with the earnings from Wyalong and beyond? It could be worked out; but it would be necessary to send an officer into the district to go through the station books, and he would have to take out the consignments.
87. Could you not say approximately? Not off-hand.
88. It is a question you would have to consider as between the Koorawatha and the Cootamundra line? It is a question you would have to consider if you had an idea of an extension to Wyalong; but as that was not before the Commissioners, they did not go into the question.
89. Did I understand you to say you had in view the possibility of a continuation of the line towards Hillston? Yes; the Commissioners think that will occur some day.
90. If that should be the case, you would touch at Wyalong, would you not? You would take a very big portion of the Temora traffic.
91. Do you think you would take 50 per cent.? I would not like to say without going into the matter.
92. *Mr. O'Connor.*] I think you said that the distance from Wyalong to Sydney, *via* Koorawatha, was shorter than by the other route? The distance from Sydney, *via* Grenfell, to Wyalong would be 325 miles, and from Sydney, *via* Temora, to Wyalong it would be 331 miles; so that there are 6 miles in favour of Grenfell. You may say that for all practical purposes the distance is the same, and the same comparison would apply to Hillston. There is one thing that would strike the Committee as peculiar in examining into this matter, and that is that by the western route, by the intermediate route, and by the southern route the distance from Sydney is practically the same.
93. Have you travelled personally over these different routes? No.
94. Do you know that there is a great difference between climatic influences in both places, and that the country to Wyalong is subject to inundation from time to time, rendering construction very expensive? That would be a matter for the engineers.
95. What you say is that one is 6 miles nearer than the other without any regard whatever to engineering questions? Yes.

H. McLachlan. 96. *Mr. Humphery.*] Can you say from memory if the Cootamundra-Temora line is paying expenses and interest upon the cost of construction? No, it is not. For the year ending 31st December last, that line entailed a loss of £2,100, and in the previous year there was a loss of £3,100.

21 Dec., 1897. 97. So that the loss last year diminished very considerably? Yes.

98. Can you speak as to the prospects of the present year? The figures are not worked out, the year not having closed; but judging from the monthly returns, the line does not seem to show any better return this year.

99. *Chairman.*] Have you a list of distances in connection with the proposed line? Yes; it is as follows:—

Young to Sydney (<i>via</i> Harden)	... ..	249 miles.
Koorawatha to Sydney (<i>via</i> Harden)	... ..	277 "
" " (<i>via</i> Blayney)	... ..	236 "
Blayney to Harden	... ..	113 "
Temora to Sydney	... ..	291 "
Young to Grenfell (includes 3¼ miles of constructed line)	... ..	33¾ "
Koorawatha to Grenfell	... ..	30 "
Grenfell to Wyalong, direct	... ..	57½ "
" " (<i>via</i> Bimbi)	... ..	59½ "
Temora to Wyalong	... ..	40 "
Wyalong to Hillston (<i>via</i> Rankin's Springs)	... ..	114 "
Harden to Sydney	... ..	228 "
Harden to Melbourne	... ..	348½ "
Sydney, <i>via</i> Grenfell, to Wyalong	... ..	325 "
" " Temora	... ..	331 "

John Harper, Chief Traffic Manager, Department of Railways, sworn, and examined:—

J. Harper. 100. *Mr. Hoskins.*] Have you been over the tract of country between Koorawatha and Grenfell? Yes.

21 Dec., 1897. 101. Is it a tract of country favourable for the construction of a railway, inasmuch as there would be no rough country to traverse? Yes; a comparatively easy line can be got. It is not absolutely level.

102. Is the land good? Very good.

103. Are there any people settled between Koorawatha and Grenfell, and does there appear to be a disposition on the part of people to go into that district and settle? There is fair settlement, but not dense settlement. There appears to be a strong disposition on the part of people to settle there. The average rainfall is about 28 inches, and the nature of the soil and its comparative proximity to market appear to render this country a desirable district for people to settle in.

104. There are a good number of farmers in that tract of country? Yes.

105. And the number is increasing? Yes.

106. Are not a good number of these settlers working the land upon which they are located on shares, the profits being divided between the landowner and the farmer? Yes.

107. Is there much Crown land available in that tract of country between Koorawatha and Grenfell, or land other than that which belongs to large landed proprietors, and which would probably be held on shares? The area of land given by the Lands Department, which we consider within the trafficable area of the line is between 340,000 and 350,000 acres.

108. Are the people who are clearing the land, and commencing to cultivate it in that district, men who have come over from Victoria and from other districts? Yes; there is a large percentage of Victorian farmers there.

109. Then they farm according to modern ideas? Yes; there are a lot of very good farmers in the district.

110. How long is it since you were in the district? About a month.

111. Is there any evidence that the number of farmers and intending farmers is increasing? I could only speak from hearsay. I have no means of comparison with anything I knew before; but it is about six years since I was previously in that district, and, on the occasion of my last visit, I saw a marked difference. Everything indicated that a very large expansion had taken place in settlement and cultivation.

112. Was there much clearing going on? Yes.

113. Are you acquainted with the class of country between Young and Grenfell? Yes.

114. Is the country between Young and Grenfell equally as good in quality as that between Koorawatha and Grenfell? There is not very much to choose between the two; they are somewhat similar in character. There is more settlement between Young and Grenfell, as it is the old coach road—it is the old highway really.

115. Are there many farmers located in the tract of country between Young and Grenfell? Yes; there are more houses, and possibly more farmers, on the road between Young and Grenfell than are to be found on the tract of country between Koorawatha and Grenfell.

116. Did you make an inquiry with a view of ascertaining on which route the larger quantity of wheat was produced? I cannot say that I went thoroughly into that phase of the question. The duty relegated to me was simply to ascertain the probable traffic on the line from Koorawatha to Grenfell.

117. From your experience and observation, having travelled over a great deal of the Colony generally, do you consider that the prospects of the district between Young and Grenfell are quite as favourable, from an agricultural point of view, as those of the district between Koorawatha and Grenfell? Do you mean as far as future development is concerned.

118. As far as their present development is concerned? Taking the railway aspect of the question in conjunction with the agricultural one, I do not think they are, for reasons which I shall explain. You will observe that between Koorawatha and Grenfell the proposed line is at right angles to the existing line. In the other case, the proposed line is not at right angles, but at an angle, and, consequently, would not assist, to any extent, in developing the area of country embraced in the triangle, neither would it assist in developing the land to the south and west of Young. On the other hand, the line from Koorawatha being at right angles to the existing line, it would practically serve the whole of the district through which it passed.

119. Has not the tendency of settlement been greater in the tract of country affected by the Young to Grenfell line than in the tract of country between Koorawatha and Grenfell? No; not from my observation. There has been more development between Koorawatha and Grenfell. Settlement has increased more. J. Harper.
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120. Do you account for that by the fact that the large landowners between Young and Grenfell are not disposed to offer inducements to people to take up land as compared with the landowners between Koorawatha and Grenfell? I could not say what the reason would be; I did not go into that. I simply inquired into the question of a line between Koorawatha and Grenfell.

121. Have you considered the question whether the circumstances of the country between Young and Grenfell are as good, as regards probable settlement and progress, as between Koorawatha and Grenfell? I should not like to answer that question as an officer of the Commissioners, but I should prefer to answer it personally; and I would answer it, as I attempted to answer it just now, in this way: that a line built in the direction of the proposed line would better serve the district by developing the country generally. There is another phase of the question—as I am now giving my personal opinion—and that is, that between Young and Grenfell you have a macadamised road which has cost a great deal of money, while between Koorawatha and Grenfell, and intermediate districts, you have absolutely no road. Those engaged in farming operations between Koorawatha and Grenfell have to depend absolutely upon bush roads, and in some cases sufferance roads, in order to get to the existing railway-stations between Koorawatha and Young.

122. If no railway were constructed between Young and Grenfell, what would be the average distance which farmers living contiguous to the road between the two places would have to haul their wheat to the railway station? In about 12 miles they either get on to the Young road or on to the Grenfell-Koorawatha line.

123. Looking at the matter as an officer holding a high position in the Railway Department, do you consider it would be more in the public interest to construct a railway from Koorawatha to Grenfell than from Young to Grenfell? Yes. There is a phase of the question which I might, perhaps, put before the Committee. Assuming that a railway were constructed from Grenfell to Young, you would be practically asking the Grenfell people, and all the intermediate people, to pay a longer haul for all time between their point of production and what must always, I suppose, be regarded as the chief point of consumption or distribution.

124. Will you kindly read to the Committee your report on the proposed line? Yes; it is as follows:—

As directed by the Commissioners, I have made careful inquiry as to the probable traffic on this proposed line of railway. The district through which it passes is a pastoral and agricultural one possessing excellent soil and a rainfall of about 28 inches. A large portion of the land is alienated, but there still remain about 350,000 acres in possession of the Crown. The settlement is not at present close, but there can be no doubt that with the exceptionally favourable circumstances of soil and rainfall the facilities for marketing produce associated with railway communication would bring about large development in agriculture. The district is also one so well suited for stock that the improved carrying capacity which invariably accompanies clearing and tillage would add very materially to the wool and fat stock production of the trafficable area of the line.

At present connection with the existing line of railway is made by road to Cowra, 35 miles, and Young, 32 miles, and sidings intermediate between these two centres. The former is the more favoured owing to its distance from Sydney, being only 219 miles as against Young 250 miles.

The existing rates of road carriage are:—

	Wheat per ton.	Wool per ton.	Goods per ton.
Grenfell to Cowra	10s.	25s.	25s.
„ Young	9s. 6d.	25s.	25s.

Stock is trucked at Forbes, Temora, Stockinbingal, and, in small quantities, at Young. The Cowra route is not favoured owing to the road being narrow and unprovided with reserves for the purpose of facilitating travelling.

Although it is manifest that this line is not intended to be a local one to Grenfell only, I have framed my estimate of traffic on the present production of the area within trafficable distance of Grenfell and intermediate points on the proposed line.

As circumstances would fully warrant it, an arbitrary rate has been adopted for the carriage of grain and stock.

The population of the district, which has been taken for passenger purposes, is 5,000.

	Estimate of traffic.		£	s.	d.
Goods—1,000 tons, at 10s.			500	0	0
Wheat and hay—2,500 tons, 15 miles, at 2s.			250	0	0
„ 2,000 „ 20 „ 2s. 6d.			250	0	0
„ 4,500 „ 30 „ 3s. 6d.			787	10	0
Wool—1,350 tons, at 5s.			337	10	0
Stock—500 trucks, at 15s.			375	0	0
Passengers—5,000, at 3s. 9d.			937	10	0
Sundries			150	0	0
Mails			360	0	0
Total			£3,947	10	0

In explanation I may say that the arbitrary rate for grain is a rate on the same basis as that which has been adopted for the Berrigan line, and which I used the other day in connection with the line from Coolamon to Ariah. The stock rate is an arbitrary rate based upon what we have existing on one or two other branch lines. The other rates are extension or through rates.

125. *Mr. Wright.*] Is the wool rate a through rate? Yes.

126. *Mr. Hoskins.*] Is the tract of country between Koorawatha and Grenfell pretty well watered? Yes, it is fairly watered; there are numerous watercourses.

127. Is it as dry a tract of country as that between Cootamundra and Wyalong, *via* Temora? No; the rainfall is about 8 or 10 inches more.

128. And there are more watercourses? Yes.

129. Therefore the land being good and water being pretty abundant, the country offers great facilities for pretty close settlement? Yes.

130. If a railway were constructed from Koorawatha to Grenfell, would not that be the best way of commencing a railway to tap the valley between the Lachlan and the Murrumbidgee Rivers? I should have some delicacy in expressing an opinion on that point. I should think it would be a very excellent way of reaching that district.

131. The country between the Lachlan and the Murrumbidgee Rivers is at present unprovided with railway communication, is it not? I should not like to commit myself to the statement that that is the best way of

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- of reaching the country mentioned, because I do not know what other schemes might be promulgated. But I have no hesitation in saying it would be a very good way of reaching that country.
132. Taking all the circumstances into consideration, looking at the railways we have already constructed in the Colony, do you consider that the tract of country between Koorawatha and Grenfell, having regard to the nature of the soil, the rainfall, and the popularity of the district, possesses advantages which entitle it to railway communication? Yes; the line is one which I have a good deal of confidence in recommending, as far as my personal judgment is concerned, to the favourable consideration of the Committee.
133. *Mr. Clarke.*] I understand that the distance from Young to Grenfell, and from Koorawatha to Grenfell is about the same? Yes; there is a difference of 2 miles.
134. Is the land on the proposed line from Koorawatha to Grenfell freehold or leasehold? I think the greater portion of it is freehold.
135. And I suppose in the hands of a few individuals? That I could not say. The Lands Department could give you that information.
136. You have already said there is a large population in the district, and would not that indicate that it is fairly well settled? It is fairly well settled, but many of the people may be farming on the halves system.
137. A good many of the farmers have come from Victoria? Yes; there are a good many Victorians in the district.
138. Is there a large area under cultivation about Grenfell? Yes, about 35,000 acres.
139. Are you of opinion that, as a rule, it is good country for the growth of cereals? Yes.
140. I suppose occasionally in very dry seasons there might be a failure of the crop to some extent? Yes; it has not failed to any great extent this year. They will have a very good average in the district. Their rainfall is fairly regular.
141. Can you give us any opinion whether this line from Koorawatha to Grenfell might be ultimately extended to Hillston? In my report I have taken the liberty of saying I could not regard it as a local line, especially in view of the fact that there is so much excellent country to the west of Grenfell.
142. The loss on the working of the line is estimated by you at about £2,000 per annum? Yes, including interest on the capital cost.
143. Do you think that loss would be ultimately reduced? Yes; I am very sanguine that it would be, because from my observation I should say that fully as much land as that at present under cultivation is cleared and waiting for cultivation.
144. Then you think that an additional 35,000 acres would be put under cultivation in a very short time? From what I observed while in the district I should expect that under ordinary circumstances.
145. And taking everything into consideration, you think that this is a line which should be constructed? Yes.
146. *Mr. Lee.*] Whereabouts are those 35,000 acres of cleared land in the neighbourhood of Grenfell? The good land extends to the west of Grenfell. There is excellent land both north and west—practically extending north-west as far as Lake Cowal.
147. Would you kindly describe to us where the lands are in the neighbourhood of Grenfell from which you expect the estimated railway return, and where the cleared lands are which you expect will double that return? They are all mixed up together; but I could give you the radius within which they are situated. The boundary would start at 4 miles from the existing line at Koorawatha, and would run due west to the foot of the Weddin Mountains, and from thence to Marsden; from Marsden it would extend back in a north-easterly direction to the parish of Warraderry, and from thence due south to the point of commencement.
148. How far west from Grenfell would the agricultural land extend? Thirty miles.
149. That would be a point equally as distant from Grenfell as Grenfell is from Koorawatha? Yes.
150. Do you estimate that the people in that direction will be able to cart their stuff to Grenfell, that being the terminus of the line? If the people at Grenfell to-day are able to carry their stuff to Koorawatha, I take it that people in the locality referred to would be able to carry their stuff 30 miles to Grenfell. I mentioned the fact rather in connection with the proposed extension.
151. Or it might be read the other way—lands that are now 60 miles from Koorawatha could not be successfully cultivated for wheat, whereas they could be cultivated if they were 30 miles from Koorawatha? They are cultivating the land to-day and successfully cultivating, relatively.
152. I presume that for 30 miles west of Grenfell their road to Young would be equally as good as from Grenfell to Koorawatha? They are carting 55 miles now to Young; in some cases they are carting to Temora, and in others to Forbes—that is from the point mentioned.
153. Where is the land situated that is going to produce the traffic to the railway? The land is spread all over this district until you reach the plain country—until you reach the Bland district. Until you get into open plain it is all agricultural country.
154. I think you will admit that any country under cultivation within 15 or 20 miles of a railway is very fairly served? I should not like to admit that in view of the decision of this Committee in the case of the Green's Gonyah line.
155. But as a matter of fact, if there is much of this agricultural land lying close to the existing line, that could be no reason for the proposed extension? No. I should like it to be understood that I am not pressing this extension.
156. So far as you put the case, if the line is made to Grenfell you feel satisfied that there will be sufficient traffic to make it pay? Yes; that is my position.
157. Do you think it will have the effect of bringing under cultivation a large area of land west of Grenfell which is not under cultivation at the present time? Yes.
158. If the line were carried from Young to Grenfell, it would have precisely the same effect, would it not? You would have to have regard to the increased distance.
159. The distance between Grenfell and Koorawatha and Grenfell and Young is practically the same? Yes.
160. The only difference being the base on the main line between Young and Koorawatha;—what is that distance? About 20 miles.
161. That is the only difference in point of distance? Yes.
162. If a line from Koorawatha to Grenfell would develop the land west of Grenfell, a line from Young to Grenfell would do the same? It might develop the land, but I do not know to what extent it would develop

develop the railway. The position would be this: Taking the shorter distance to Cowra by rail from Sydney, we should certainly get no goods traffic on the line at all, because the 35 miles of haulage between Cowra and Grenfell would be accomplished at a less cost than we could carry the goods for, charging a rate through from Sydney to Grenfell. J. Harper.
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163. But a distance of 30 miles in the carriage of wheat would be a very small matter? I am talking about the traffic generally. I am certain that if a line were built from Young to Grenfell, the wool and stock, which at present finds its way to Cowra, would continue to find its way there. The position is this: To-day Cowra is 35 miles from Grenfell; its distance from Sydney is 219 miles. Young is distant 250 miles from Sydney, and it is 32 miles from Grenfell.

164. Young is 31 miles further from Sydney than Cowra is? Yes; that is the position.

165. Is a distance of 31 miles going to control the carrying of wheat, considering that you carry it at such low rates? I am sure that if that line were built to-morrow not a bushel of wheat grown between Young and Grenfell would find its way on to the line unless it might be at Grenfell itself. It would find its way to platforms on the main line.

166. Grown how far from Young? I should say if it were grown to the north-east of the existing line it would find its way on to the existing line between Murrumburrah and Blayney.

167. Would not the same thing happen in the case of the Koorawatha line? No; for the simple reason that the latter would be built at right angles to the existing line.

168. You expect to take up your traffic at a point 4 miles from the existing line? Yes.

169. Would you not get more traffic between Grenfell and 4 miles of Young than between Grenfell and 4 miles of Koorawatha? I should not like to say that we would. As I said before, there is a macadamised road between Grenfell and Young, and I do not know to what extent that might be used for traffic purposes. I may say that I have not compared the merits of these two lines.

170. You have been over both? Not with the view to report on them both.

171. But you know the country? Yes.

172. You make a point of the fact that Koorawatha is much closer to Sydney? Yes.

173. I presume the object of the Railway Department is to bring the traffic as far south as is possible on to the main line—as far towards Sydney? All other things being equal, the closer you can get to Sydney the better.

174. In other words, is it the policy of your Department to make railway connections so that traffic will come nearer to Albury or towards Victoria? No.

175. You want to take your connections as close to the metropolis as possible? Consistent with properly developing the district which the line is supposed to serve.

176. Looking upon the metropolis as being the chief market of the Colony? Yes.

177. Did you in your estimate of revenue fix a special rate? Yes; the same rate that obtains on the Berrigan line—1½d. per ton per mile.

178. Has that rate proved satisfactory to the growers using the Berrigan line? So far as it has been in operation, yes.

179. How does the Berrigan line compare with other extensions as regards the earnings of the line? I have not looked at the matter with a view to comparison. The revenue is a good deal better than on other lines.

180. And lower in other cases? It is not as good as the Moree line, and it is a good deal better than the Lismore-Tweed line.

181. What will it cost to convey grain from Grenfell to Sydney? Fifteen shillings and fourpence per ton—that is *via* Koorawatha.

182. What is the rate from Koorawatha to Sydney? Eleven shillings and tenpence.

183. And what is the proposed local rate? Three shillings and sixpence.

184. If the same local rate were charged from Grenfell to Young as from Grenfell to Koorawatha, the through rate from Grenfell *via* Young to Sydney, would be 15s. 4d. also? Yes; I would draw attention to the fact that grain is not the only thing I have estimated for.

185. What are the rates for wool? From Grenfell to Sydney *via* Koorawatha adopting the local rate, the charge would be £3 2s. 6d., and it would be the same *via* Young.

186. Are there any items of traffic on which the rates would vary? Yes, every item, but the two mentioned.

187. Are they of importance? Yes; they embrace live-stock, passengers and goods of every other description except agricultural produce and wool.

188. Will you enumerate the articles on which there is a difference, and let us have the information at a subsequent stage? Yes.

189. I presume the only other competing route, with the two routes we have been considering, is that from Cootamundra *via* Temora to Wyalong? Yes.

190. From your knowledge of the country, and believing it to be desirable to reach Wyalong, which of the routes do you think is the best for the purpose? *Via* Grenfell, most undoubtedly.

191. Presuming Hillston to be eventually the objective point, are you of opinion that an extension could be made from Wyalong to Hillston that would fairly divide the country lying between the Murrumbidgee and the Lachlan, and give the settlers there a reasonable access to market? I should think it would be practicable, but I should not like to express any pronounced opinion about it.

192. You have not had an opportunity of going through that country? I have been through the country, but I have not been through it for that purpose.

193. Do you hold the opinion that if a line is constructed to Grenfell it must of necessity go beyond that point? I should most undoubtedly think it would. I think the country beyond would be found to have a good many recommendations.

194. And should that be the case, presumably Wyalong would be the first connection? Yes; I take it that Wyalong would be the objective point, because it carries a comparatively large population to-day; and apart from that, fairly good country would be got for railway purposes between the two places. It would be 10 miles closer from Wyalong by Grenfell and Koorawatha than it would be by Temora.

195. Wyalong, of course, would be the most important settlement after leaving Grenfell? Yes; that is the centre of population.

196. Although you have reported upon the proposed line, you have not reported upon it as a short extension only—as what you might call a cockspur line only—without having any future before it? As I have indicated

- J. Harper. indicated in my report the figures submitted deal absolutely with the extension to Grenfell; but I have incidentally referred to the possibility of an extension further west.
- 21 Dec., 1897. 197. If there were no future, if there were nothing beyond Grenfell, it would then be a consideration whether it would be desirable to make an extension to that place or not? I should think it would be.
198. You have arrived at your opinion with reference to this line in view of the fact that it will show a loss to start with, and that it has the possibility of an extension in the future? Yes.
199. And although there may be a loss at first, you are strongly of opinion that that loss will be more than compensated for? Yes.
200. *Mr. Wright.*] Can you give the Committee any information as to whether the crops in the district within the last two or three years have been a success or a failure? Last year they had a fairly good crop, and I think the year before. I do not think the crop has been less than 10 bushels.
201. Are you quite sure that you have not included within the radius that will come under the influence of the proposed railway any portion of the wheat-growing country served by the railway at Forbes? Yes.
202. You have visited the country in Riverina, and the country in the district under consideration where a great deal of farming is done on the halves system? Yes.
203. Would you have any objection to give the Committee the benefit of your experience, and state what are your views as to the possibilities of the halves system? I have not gone into the matter very critically lately in Riverina; but it appears to me, as far as I can gather, that this system is on a far more solid basis than it was some four or five years ago.
204. It appears to be a growing system? Yes.
205. What effect will it have on the country, in your opinion, with two classes of men, one owning the soil and the other cultivating it, and both naturally anxious to get the greatest possible result from it, without returning anything to it;—what effect do you think that system will have on the soil in the course of a few years? It will depend upon whether it is intelligently worked. For instance, at Barooga, a system was introduced by Mr. McFarlane, which I believe has been imitated in Riverina, by which the tenants for the time being are given the option, after they have taken three crops off the land, of shifting on to an adjoining block and spelling the land, or sowing it with lucerne. As a matter of fact, the frontages are let out now on Barooga in 10-mile frontages and about 250-acre farms, with accommodation, such as water, &c., common to all occupiers all along a line, extending, say, for 5 or 10 miles. After three crops have been taken off the land, the farmers have the option of shifting on to the other side of the frontage, and cultivating there.
206. The land is let out as in alternative farming? Yes; and it is not necessary for the farmers to shift their buildings or to provide water. If the share system is carried out on a plan of that kind, I think it is likely to be permanent and successful.
207. Does it strike you that the system which now prevails in this district must, in a very few years, lead inevitably to the complete exhaustion of the soil? There are portions of the district which are said to have produced crops for the last twenty years or more without exhaustion. I take it that every year we are improving in our methods of cultivation; and with improved machinery and better knowledge on the part of the cultivators, a good many of the evils which resulted in the past from bad tillage and bad judgment in farming will disappear.
208. Do you know if the experience in Victoria has been that very large areas of land which produced wheat under the halves system have become exhausted, and have gone again into the hands of the pastoralists for grazing purposes? Yes; but the mistake that was made there was that the land was let in areas that were too small. Every acre of it had to be cropped. There was no opportunity of giving the land a rest, and it became too dirty for successful cropping. The same thing has occurred in the Cowra district. The Cowra district was practically abandoned for cultivation on account of the dirty character of the land.
209. Am I right then in concluding that, as far as your experience and observation go, you think the present system of farming on halves is likely to be a success to both tenant and owner, and will not exhaust the soil? I think so, if it is intelligently carried out. Of course there may be exceptions to the rule.
210. Is it your experience that the bulk of the farming in this country is intelligently carried out or carried out in the greedy manner I have indicated? The latter has been the experience in the past.
211. Do you think that if that system is pursued it will lead eventually to the exhaustion of the land, and to its going back into pastoral occupation? I am sure it will mean that it will become so exhausted or so dirty as not to be fit to compete with virgin and better tilled land.
212. And hence the desire of the Victorian farmer to immigrate to New South Wales for a couple of seasons to work new land? I think a lot of them have come here for more than two seasons.
213. *Mr. Fegan.*] Are there other local rates than those proposed for this line? Yes; we have them on a number of branch lines.
214. Are there any local rates similar to those on the Berrigan to Finley line? No. That is the only existing line on which such a rate exists.
215. That is the highest rate? Yes.
216. And that is the rate you wish to apply to the proposed line? Yes.
217. If the route from Young to Grenfell is more thickly populated, and there are a larger number of holdings than on the route from Koorawatha to Grenfell, do you not think that is a consideration to which this Committee should give some weight? I think the Committee ought to weigh everything in connection with the line. I think it due to the district that the Committee should give consideration to the fact you have mentioned.
218. I think you will admit that where there is a population, and more especially such as you speak about, they contribute more largely to the expense of a line than in localities where large stations are to be found? Not always. They do not contribute so much to the revenue of the line.
219. But there are so many more consumers, and more small farms and so forth? Yes; no doubt every living soul means traffic.
220. The area you gave as coming within the influence of the proposed line included the Bland country? Not as regards agriculture, but only as far as wool is concerned. For wool traffic I included the country as far as Lake Cowal.
221. Do they not grow wheat in the Bland country? Not to any extent. It is pastoral country.

222. Where is Calderwood's holding? That is a long way from the Bland. I should think the really good agricultural country extends a distance of from 25 to 30 miles due west from Grenfell.
223. There is some good country south of the Weddin Mountains? Yes.
224. Would the traffic from that country come to the railway if a line were constructed there? I am not sure.

J. Harper.
21 Dec., 1897.

WEDNESDAY, 22 DECEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN.)

The Hon. FREDERICK THOMAS HUMPHERY.
The Hon. JAMES HOSKINS.
The Hon. CHARLES JAMES ROBERTS, C.M.G.
The Hon. WILLIAM JOSEPH TRICKETT.
The Hon. DANIEL O'CONNOR.
HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
JOHN LIONEL FEGAN, Esq.
THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.
FRANCIS AUGUSTUS WRIGHT, Esq.
FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Koorawatha to Grenfell.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and further examined:—

225. *Mr. Fegan.*] Have you prepared a statement showing the railway rates on goods, &c., from Sydney to Koorawatha, as compared with the rates from Sydney to Young? Yes; it is as follows:—

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Goods and Livestock Rates.

From Darling Harbour to—	Dis.	Mis.	A.	B.	1st.	2nd.	3rd.	Truck.	Wool.		Grain, up-journey in truck loads, per ton.	Hay, straw, and chaff, per truck.	Live stock.
									Scoured.	Greasy.			
Koorawatha..... (via Blayney)	237	18/-	20/8	35/1	73/10	91/8	127/3	£29 14s. Od.	76/9	57/6	11/10	53/6	109/7
	30	3/1	3/11	5/6	11/9	14/2	18/8	10s. Od.	5/-	5/-	3/6	10/-	15/-
Young	267	21/1	24/7	40/7	85/7	105/10	145/11	£30 4s. Od.	81/9	62/6	15/4	63/6	124/7
	250	18/9	21/5	36/4	76/6	95/1	132/-	£31 0s. Od.	76/9	57/6	11/10	53/6	113/4
		30	3/1	3/11	5/6	11/9	14/2	18/8	10s. Od.	5/-	5/-	3/6	10/-	15/-
	280	21/10	25/4	41/10	88/3	109/3	150/8	£31 10s. Od.	81/9	62/6	15/4	63/6	123/4

226. Yesterday you stated that the Bland country was not fitted for wheat-growing? Yes; the greater portion.
227. But I suppose you cannot get better country for fattening purposes? No; it is splendid pastoral country.
228. If a railway were constructed to Grenfell that would be the nearest route for trucking stock—nearer than Temora? Yes; the greater portion of the stock would be trucked at Grenfell.
229. What is the distance from Grenfell to Marendula, a station between Bimbi and Barmedman? I cannot say, but I can tell you where the wool from that station at presents finds its way. I have a list of the stations showing the wool traffic credited to the proposed line at Grenfell. Wool at present delivered at Young-Craggobilly, 803 bales; Tregalama, 186 bales; Lake Cowal, 1,278 bales; McCullum, 41 bales; Bimbi, 132 bales; Bogolong, 302 bales; Euroka, 63 bales; Weddin, 38 bales; Landria, 161 bales; Armagong, 100 bales; Bald Hills, 430 bales; small lots, 150 bales; total, 3,684 bales, weighing 1,614 tons. The wool that at present comes to Cowra is as follows:—Pinnacle, 557 bales; Tinpot, 124 bales; Grenelg, 564 bales; Wheoga, 628 bales; Oma, 858 bales; Brundah, 496 bales; Melyra, 64 bales; small lots, 321 bales; total, 3,605 bales, weighing 669 tons. The quantity of wool that finds its way at present to Monteagle is 400 bales, weighing 66 tons.
230. The figures you have given represent the wool that has been credited to the proposed line, and which at present finds its way to Cowra, Young, and Monteagle? Yes.
231. You have not the slightest doubt that all this wool would go to Grenfell? It would all find its way on to the line at Grenfell, or some intermediate point.
232. Have you been through the Bland country? Yes.
233. You have never been through it, I suppose, in flood time? No.
234. Have you ever heard that a great extent of it is flooded? I have heard its general character described as being very boggy, and I expect it is so. There is no doubt it is liable to flood. I do not know enough about it to give an opinion of any value.
235. There is plenty of ironbark for railway construction south of the Weddin Mountains, is there not? I do not know. It is very hard to say. There is ironbark and ironbark.
236. That is a great consideration in railway construction? Yes. We are getting plenty of good ironbark at Temora now; I do not know where it comes from.
237. *Mr. Hassall.*] In dealing with the question of traffic, have you taken into consideration the choice that would be offered to residents of the west who might wish to remove their stock in bad times and who would have an opportunity of bringing them by the railway to Koorawatha;—who would, in fact, practically have the choice of two routes? Yes; I do not attach very much importance to that, because our experience has not indicated that very large quantities of stock are ever moved, no matter what concessions are made. We moved very little stock last year.
238. So that the argument that a more direct route to the mountains would have a bearing upon the question of traffic as regards stock does not, in your opinion, carry much weight? No; our experience does not teach us that the opportunity for the transport of stock in the manner suggested is availed of to any extent.

- J. Harper. 239. You find, as a rule, that people prefer to let their stock perish on the run—at least, they leave them to the last moment, hoping for a change? Yes; or else we take feed to them. We carried enormous quantities of forage last year at reduced rates to districts where feed was required for stock.
- 22 Dec., 1897. 240. By having the junction at Koorawatha you would practically command both the Southern and Western lines for the supply of forage to this part of the country? Yes.
241. So that if there was nothing coming from the Southern district there would, perhaps, be something from the Western, and *vice versa*? Yes.
242. It would give a choice to the people of Grenfell and the district beyond of finding their supplies either in the west or in the south? Yes.
243. Have you taken into consideration the fact that, by taking the line to Koorawatha, Grenfell would be brought 40 miles nearer to Sydney than by the Southern route? Not 40 miles, but the difference between 267 and 280 miles. It is 237 miles from Sydney to Koorawatha and 250 miles from Sydney to Young.
244. Then Koorawatha is 13 miles nearer to Sydney than Young is? Yes, by the Western line; but Young is nearer to Sydney by the Southern line.
245. The distance from Sydney to Young by the nearest route is 250 miles, and the distance from Sydney to Koorawatha by the nearest route is 237 miles? Yes.
246. And what is the difference between Young and Koorawatha? Twenty-seven miles.
247. Then the difference between the distance from Koorawatha and the distance from Young, going by the Southern district, would be 40 miles? Yes, 27 and 13.
248. Have you travelled over the country lying between Grenfell and Wyalong? Yes.
249. And between Wyalong and Hillston? Yes.
250. You have traversed the whole of that country? Not the surveyed line, but I have been through it approximately.
251. What is your opinion of the country in regard to its suitability for agriculture? A lot of it is very excellent country.
252. You think that that country might be utilised for settlement if means of communication were provided? Yes; I think it is probable it would be.
253. Do you think that a line from Grenfell, no matter from what point, would be the first step towards an extension to the west? I should think that was contemplated. Of course I cannot tell what the object is, but that is what I should imagine to be the object.
254. From what you have seen of the country, and from what you know of it, do you think it would be justifiable to extend the railway further west from Grenfell? I do not know that I am in a position to express an opinion on that point.
255. You have travelled the road from Grenfell to Young? Not with the view of reporting on that line. It is five or six years since I was over that route.
256. Is there any great difference between the character of the country on the two routes? No very material difference.
257. Have you any idea of the grades between Young and Grenfell, as compared with those between Koorawatha and Grenfell? That is a question that I have never had submitted to me.
258. There has been a trial survey, I suppose? I believe so.
259. Have you travelled the country between Grenfell and Cowra? It is all more or less hilly country—broken. There are not very many great difficulties, I imagine.
260. It is not a fact that the point of departure was made at Koorawatha on account of the easy nature of the country? Yes; I think they were able to get through the gap in the mountain range from there.
261. The only difficulty in the range near Koorawatha, is it not? Yes.
262. And the grade up that is 1 in 75? Yes, I think so.
263. You have seen that country, and the enormous areas under wheat? Yes.
264. And you base your support to this proposal practically on what you have seen of the productiveness of that part of the country? Yes; on what I have seen of the area actually under cultivation, which, from the returns given at the various railway-stations where the wheat in the district would be delivered, shows, approximately, 10 bushels to the acre on 35,000 acres. Those figures correspond very closely with the returns actually obtained at our stations.
265. So that the one corroborates the other? Yes.
266. And that is traffic you can rely upon? That is the traffic I have placed before the Committee.
267. In addition to that, you expect a much larger area to be put under cultivation, giving a corresponding increase in the traffic? Yes; I fully expect a very considerably increased area will be placed under wheat in that direction.
268. The very fact of it being made convenient for them to dispose of their produce by rail induces people to put their land under cultivation, instead of growing wool? Yes; they would grow wool as well.
269. I believe you said they found it more profitable to grow cereals than to grow wool? Yes—or in combination.
270. But it naturally follows that if people saw that growing wheat was a more profitable occupation than growing wool, they would gradually turn their holding into wheat cultivation? I should think they would.
271. *Mr. Roberts.*] I notice from the Commissioners' report that the traffic on the proposed line is expected to more than pay working expenses? Yes.
272. And the report goes on to say that in time there is every reason to believe that it will not only pay working expenses, but also interest on the capital expended? Yes.
273. Within what period of time do you think the line would become a paying one? I scarcely like to undertake to say that; but from present indications I should think it should pay in the course of four or five years.
274. You think it would not only pay working expenses, but interest on the outlay? Yes.
275. You see the two areas marked on the map as representing the wool and the wheat traffic that would come to the railway? Yes.
276. Having been over the country, do you regard those areas as being correctly shown? Yes; I do not regard them as in any way extravagant. There is country more to the west which might claim to be included; but

but I purposely left that out in case at some future time we might have to deal with another stage of the line.

277. What area is represented on the map as being wheat-producing? I could not tell the actual acreage.

278. Taking Grenfell as the centre, would it extend 25 miles round? Yes; I should think that would be a fair estimate, speaking generally; though as to the portion due south of Grenfell, I will not speak definitely.

279. Going down south from Grenfell there is a ridge marked on the map; is not the land south of that ridge, towards Young, good wheat-growing country? Yes; there is some good land there.

280. Would it not be a fair thing to show that country on the map, as coming within the influence of this railway? No; I think the traffic from that portion of the country would come in by the existing road to Young. They would not go back to Grenfell, but would go on to Young by the road.

281. Is there much settlement between Koorawatha and Grenfell? The population is scattered; the settlement is not dense.

282. It is not to be compared to the settlement between Young and Grenfell? I do not know what settlement there is between Young and Grenfell; but six years ago that country was not very densely settled. There might, perhaps, have been forty or fifty settlers on the road, as far as I can remember.

283. Is not the settlement there sufficiently large to warrant favourable consideration being given to a line from Young to Grenfell, in preference to one between Koorawatha and Grenfell? I could not say. I do not know sufficient of the Young to Grenfell route to express an opinion on the subject.

284. Are both routes equally favourable for railway construction? That I do not know. I have not seen any engineers' reports which would enable me to speak as to the grades or cost of construction.

285. Where is the wheat-growing going on at the present time—east of Grenfell? Yes, and between Young and Grenfell; and also, to the west and to the north and to the south of Grenfell—in fact, in all directions.

286. And between Grenfell and Koorawatha? Yes.

287. Is much difficulty experienced at present in getting produce to market? There is no proper public road between Koorawatha and Grenfell. The road is a very broken one, going through lanes, and there are sufferance roads, and roads through selections.

288. Are you in touch with the extremely sanguine nature of the report, as to the line being a probable paying one shortly? I ought to be; I prepared the estimate for the Commissioners.

289. Would you mind telling the Committee what caused you to be so extremely sanguine as to the probability of this line being a paying one in the near future, seeing that at first it will show an annual loss of nearly £2,000? The character of the soil; the rainfall; the large quantity of undeveloped land which lies on the route of the line, and within a trafficable radius of Grenfell.

290. Is the land better adapted for the production of wheat than land in other parts of the Colony? I should not like to say it is the best in the Colony, but it is certainly very good.

291. You regard this as one of the best districts? Yes.

292. What is the difference in the character of the country between Koorawatha and Grenfell, and thence to Wyalong, and the country between Temora and Wyalong? Speaking personally and generally, I would rather have 1 acre of the land between Koorawatha and Grenfell, and about 25 miles west of Grenfell, than I would have 10 acres between Temora and Wyalong.

293. For what reason? Simply on account of its superior character. There is a better rainfall, and the land is free from the noxious scrub that prevails to a large extent in the district between Temora and Wyalong. That is a personal view; I do not know whether an agriculturist would agree with it.

294. What is the difference in the character of the country between Grenfell and Wyalong, as compared with that between Temora and Wyalong? For a distance of from 25 to 30 miles west of Grenfell the land is of an excellent agricultural character; then you open out on to the rich pastoral country of Bland until you get within a few miles of Wyalong, when you get into mallee and somewhat inferior country—practically the same country as that between Wyalong and Temora.

295. Do you not regard the country between Temora and Wyalong as good wheat-growing country? Where they had no better it might be good; but I cannot conceive the possibility of that land being used for wheat production for a long time.

296. Talking about mallee, do you not think it possible that that land will be eagerly sought after in the near future? I do not think it will in the near future. When we have no other good land it may be taken up; but I do not think it is likely to be rushed at present.

297. Not while people can get other land? No.

298. Have the Railway Commissioners been over the line, not only from Koorawatha to Grenfell, but as far as Hillston, *via* Wyalong, and Cudgellico? I do not think the Commissioners have been between Wyalong and Cudgellico.

299. In their report the Commissioners say that this line should be extended westward to Hillston? The question has never been officially before them to require their examination of that suggested extension, but I have no doubt the Chief Commissioner knows the character of the country.

300. Could you say upon whose report this opinion expressed by the Commissioners was formed? I should take it to be the personal opinion of the Commissioners, because they know that Hillston has been constantly kept in view—that Hillston and its neighbourhood should be an objective point for a railway, as it is a point where a divergence of traffic takes place to the southern colonies.

301. *Mr. Black.*] I am not quite clear as to whether you have stated definitely that you consider the country between Koorawatha and Grenfell equal to that between Young and Grenfell? Yes; I consider that there is very little difference—it is inappreciable.

302. I understood you to say that the distance from Grenfell to Sydney, *via* Young, would be 280 miles, and the distance from Grenfell to Sydney, *via* Koorawatha, 267 miles, or a difference of about 15 miles? Yes.

303. I understand from what you have said that one of your reasons for preferring the Koorawatha route, is, that it provides an alternative route to Sydney by either the Southern or the Western line? I was asked the question whether that would not be one reason.

304. If the communication to Grenfell were *via* Young, by which route would the traffic be taken to Sydney? By the southern line.

305. And if the communication were *via* Koorawatha, what would be the direction then? By Blayney and Bathurst to Sydney.

306. That would go over the Blue Mountains? Yes.

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307.

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307. Is there any appreciable difference between the grades on that line and the grades on the southern line at Moss Vale? No; by the time the improvements in the grades, which the Commissioners have in contemplation, have been made there will be very little difference in the two routes in the matter of grades. The Commissioners now have under consideration a number of alterations in the grades which will practically balance the two routes.
308. In this connection has the possibility of an extension to Forbes been taken into consideration? No.
309. Is there any likelihood of the area which lies between Young and Temora ever being tapped by a line which would be carried from Young towards Temora, and thence perhaps in the direction of Ariah—have the Commissioners ever considered that? No.
310. Looking at the map there is what might be called an isosceles triangle formed by the lines from Young to Koorawatha, by the projected line from Koorawatha to Grenfell, and the surveyed route from Young to Grenfell. If the line were made from Young to Grenfell, would it serve all that internal area surrounded by the triangle? I should imagine it would serve approximately about the area midway between Young and Grenfell. The portion beyond would continue to come into the main line.
311. Looking at the line from Koorawatha to Grenfell, about how far from Koorawatha would the traffic make for the new line? I have not estimated for anything within 4 miles of the existing line—that is to say, I have not credited any portion of the new line with traffic from the portion 4 miles from Koorawatha, because that traffic would either go into Koorawatha or to some other station on the main line. The estimate given practically represents traffic that would find its way on to the new line from the other side of the range.
312. You make the range your boundary? It is not so absolutely, but it is practically.
313. It is the boundary that operates against cartage? Yes.
314. According to the map there is a range extending on both sides of the line which is outside the area marked yellow? Yes.
315. Would not that range, which you say would operate against the cartage of goods to Koorawatha in the event of the line being constructed, also operate against the cartage of goods to the new line from places beyond the range to the north, south, and west? No; the traffic north between the range and the Cowra-road will come to a point where the surveyed line crosses the Cowra-road. North of that it would come into Grenfell.
316. But the range would cut it off, would it not? No; it would come into Grenfell.
317. Is there a good opening in the range there—a good road through? Yes.
318. Then how about the influence of the range westward; would it not cut off the traffic in that direction? No; it is not a very formidable range at any point, except when you come to the Weddin Mountains themselves.
319. Is there likely to be any development of the mining industry in the locality? Some people there speak confidently about it. I do not attach very much importance to it. It is always very difficult to tell in a district like that what developments may take place, especially with the improved methods of treating refractory ores.
320. It has been suggested by the Chairman that if there were any likelihood of mining development the connection with Lithgow would be valuable to the industry? Mr. Vaughn, an old resident of the district, who has a very good knowledge of mining matters, is confident that developments will take place there, chiefly in connection with refractory ores.
321. *Mr. Humphery.*] Is your evidence to this effect: that the maximum loss, by the most careful calculation, will be less than £2,000? Yes.
322. But you are confident that in a very short period the cultivation of wheat will be doubled? Yes.
323. The result of that cultivation will be to double your estimate of freight on wheat, making it £2,600 instead of £1,300, and thus reducing the deficiency from £2,000 to £700 on that item alone? Yes.
324. And that is without reference to the additional earnings on the main line by reason of the increased production in the district around Grenfell and beyond? Yes, and the additional traffic carried to the increased number of producers.
325. So that, although shortly after construction it may be a non-paying line, within a very short period it will be taken out of the list of non-paying lines, and will appear among those earning not only expenses but full interest as well? Yes, that is my view.
326. You are confident that that will be the result of the construction of this line? Yes.
327. *Mr. Wright.*] What do you think of a possible connection between Young and Forbes, *via* Grenfell, by the old trial-survey line? I must confess I do not see that many advantages would be derived from it.
328. Would that serve the whole area of country? No; it would not serve it in the same way that a line running west would serve it.
329. Would it not bring the great bulk of the country closer to the railway? It might have that effect as regards the country between Forbes and Grenfell, but it would not provide for the immense area to the west which is to-day without railway communication.
330. But it would provide for all the area you have marked on the map in connection with the Koorawatha line. I am dealing with the Koorawatha-Grenfell line as a line in itself? Decidedly. There is no doubt that this traffic would be taken to Grenfell, no matter how the line was built.
331. But a railway from Forbes to Young, by the route I have indicated, would provide all the country we are now considering with railway communication? Yes. Of course it would be practically a competing line, with one already in existence.
332. Your objection to that line is that it would not give any increased facilities to the west, and it would not offer any particular chance of extension? No. Some day or other it might be necessary to make the connection; but I cannot conceive it to be necessary now.
333. Have you ever thought where the population is to come from that is going to utilise the enormous areas of wheat land we have recently been asked to open by railway communication? I should imagine from indications I see all around me, that there would be no difficulty in obtaining the population if there were facilities for growing wheat.
334. Where is the population to come from? The people would come from the other colonies.
335. *Mr. Humphery.*] Having regard to Mr. Wright's question as to the desirableness of a connection between Grenfell and Forbes, what is the distance between those two places? The distance from Young to Forbes is 89 miles.

336. What is the distance from Young to Grenfell approximately? I should think it was 32 miles.

J. Harper.

337. Assuming the line from Koorawatha to Grenfell to be constructed, what would be the greatest distance of settlement between Grenfell and Young from the nearest railway station? Twenty-five or 26 miles in either direction.

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338. So that the district would be fairly served without making a connection between Young and Grenfell? Yes.

Henry Chamberlaine Russell, C.M.G., Government Astronomer, sworn, and examined:—

339. *Chairman.*] Will you give the Committee a statement showing the rainfall in the district affected by the proposed railway? The average rainfall at the stations on the line from Koorawatha to Grenfell is as follows:—At the Glen, 25·98 in.; Warrengong, 27·39 in.; Cowra, 28·86 in.; Brundah, 26·35 in.; Grenfell, 27·85 in.

H. C. Russell,
C.M.G.

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340. These are stations east from Grenfell? Yes.

341. Therefore, the land lying between Young and Koorawatha and Cowra, and to the west towards Grenfell, has a rainfall of about 25½ inches, roughly? Yes. On the line from Young to Grenfell, going north, the average rainfall is as follows:—Berthong, 29·79 in.; Young, 27·95 in.; Warrengong, 27·39 in.; Nestle Brae, 27·74 in.; Brundah, 26·35 in.; Grenfell, 27·85 in. On the line from Cowra to Wyalong the average rainfall at the different stations is as follows:—Cowra, 28·86 in.; Mount McDonald, 29·59 in.; Brundah, 26·35 in.; Grenfell, 27·85 in.; Bogolong, 26·52 in.; Pinnacle, 22·99 in.; Bland East, 20·02 in.; Marsdens, 20·59 in.; Lake Cowal, 20·75 in.; Wyalong, 21·40 in.; Bolygamy, 20·66 in.; Blow Clear, 19·70; Morangarell, 23·79 in.; Barmedman, 21·02 in.; Mandamah, 21·41 in. These stations are all within a radius of 20 miles of the line specified.

342. Over what period do the records extend? In the case of Cowra, twelve years; Grenfell, seventeen years; and Young, twenty-four years. Taking the square degree in which Condobolin is situated, the average rainfall is 20·75 in., and that average is continued in the next square degree in which Wyalong lies. In the degree in which Forbes is situated, the average is 24·25 in., and the degree in which Young and Cootamundra lie shows an average rainfall of 26 inches. Cowra lies within the 24·25 degree. At Errowanbang, 15 miles north-east of Cowra, the average rainfall is 31·42 in., and at Carcoar it is 32·08 in. The land falls rapidly towards the west, which accounts for the much lower rainfall in that direction.

William McIntyre, Chief Electoral Officer, Chief Secretary's Department, sworn, and examined:—

343. *Chairman.*] You have a statement with regard to the population in the district affected by the proposed railway? Yes. The Cowra division of the Cowra electorate contains a population of 6,206, and this embraces much of the district around Cowra. At Koorawatha, which is on the southern boundary of the Cowra electorate, according to the electoral roll there are only 14 electors, which, taking the proportion at 4½, would represent a population of 60 or 70. The Young division of the electorate of Young, which includes the town of Young, has a total population of 5,260. The Grenfell division of the electorate of Grenfell contains a population of 5,142. That represents the country around Grenfell, and takes in a large area. The red line on the map is approximately the boundary between the electorates of Young and Grenfell.

W. McIntyre.

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344. So that around Grenfell and Young, and for a certain distance between those places, you have a population of 10,000? Yes. Between Grenfell and Koorawatha the population is sparse. I do not know the number of inhabitants, but I will supply the Committee with the information at a subsequent stage; and I will also give the Committee similar information with regard to the population between Grenfell and Young. There is a large population in Wyalong, which is included in the Barmedman division of the Grenfell electorate. The population there is 6,735. That takes in Barmedman, and I suppose 20 miles south and west, including Yalgogrin. Marsden division, which is between the Barmedman and the Grenfell division, contains a population of 1,338.

Charles Edward Rennie, Chief Draftsman of Lands Department, sworn, and examined:—

345. *Chairman.*] Do you produce a map? Yes; the map shows the land within 20 miles on each side of the proposed line from Koorawatha, *via* Grenfell and Wyalong, to Hillston and 20 miles beyond Hillston. At the eastern end it converges to a point at Koorawatha, allowing for the influence of the existing line from Cowra to Young. Within those limits the land alienated is shown by a blue tint and comprises 1,705,990 acres. Settlement and improvement leases, which are shown by blue hatching, amount to 276,730 acres. The reserves, which are shown by a green tint, embrace an area of 864,110 acres, and the area of the Crown lands is 1,981,140 acres. The reserves and Crown lands together amount to nearly 3,000,000 acres. The Crown land is held as follows:—Leasehold areas, expiring between 1898 and 1900, 951,310 acres; leasehold areas, expiring in 1918, Western Division—that is, west of the Lachlan River—106,160 acres. The land held under occupation license amounts in area to 366,310 acres, and the lands untenanted represented about 557,360 acres.

C. E. Rennie.

22 Dec., 1897.

THURSDAY, 23 DECEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.	CHARLES ALFRED LEE, Esq.
The Hon. JAMES HOSKINS.	JOHN LIONEL FEGAN, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	THOMAS HENRY HASSALL, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	GEORGE BLACK, Esq.
The Hon. DANIEL O'CONNOR.	FRANCIS AUGUSTUS WRIGHT, Esq.
HENRY CLARKE, Esq.	FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Koorawatha to Grenfell.

William Henry John Slee, Chief Inspector of Mines, Department of Mines, sworn, and examined:—

- W. H. J. Slee. 346. *Chairman.*] In your opinion, are there any possibilities of mining development between Koorawatha and Grenfell? There may be, but not a great deal. The country is more agricultural than mining.
- 23 Dec., 1897. 347. As far as mineral resources are concerned between Koorawatha and Grenfell, until you approach close to Grenfell, you may dismiss that particular country from consideration? Yes.
348. Take Grenfell itself; will you describe Grenfell from a mining point of view? My opinion is that sooner or later Grenfell will again become one of the leading gold-fields of New South Wales. I have known Grenfell from its infancy. I was one of three who marked out the first allotments there, and I have been through every quartz-mine that has been worked at Grenfell. I have every reason to believe that sooner or later the Grenfell reefs will yield payable returns at a greater depth than that at which they have been tested up to the present time. The greatest depths at which the reefs at Grenfell have been tested is 720 feet. At one time Grenfell sent 8,000 oz. of gold per week to the Sydney Mint; but, as in the case of all our mineral fields, the alluvial or individual miner has disappeared and the company has taken his place. Companies in those days meant promoters and shareholders with very little capital, and that is the reason why Grenfell is in the position in which it stands to-day.
349. You believe there has been no real test of the lower levels? I believe if the Grenfell reefs were tested to a greater depth, they would turn out payable to a very large extent. There are a large number of reefs at Grenfell.
350. And you believe that Grenfell, by reason of its mining resources alone, has an important future? Yes, a very important future. There will be a large number of consumers, and the agriculturists will, of course, be the producers.
351. Coming down from Grenfell to Young, what is your opinion with regard to the possibility of mining development there? Between 7 and 9 miles from Grenfell, on the direct route to Young, there is a place called Tyagong, and it is very probable that the reefs there will be developed at a lower level.
352. Is there anything between the Tyagong Reefs and Young? There will be very little mining there. It is all agricultural country.
353. In speaking of the Grenfell mining district proper, will you state over what area it extends? In a south-easterly and north-westerly direction the quartz reefs of Grenfell may be said to extend for about 15 miles, and they are about 2 miles in width. Within the whole of that belt there is one mass of reefs which have been worked to a certain depth.
354. Do they pass through Grenfell going in a north-westerly direction? They go in towards Tyagong in the direction of Young; they do not go in the Cowra direction.
355. They extend pretty well north and south? Very nearly so.
356. Then, an area 7 miles south and 7 miles north of Grenfell, and approximately 2 miles wide, covers what you speak of as the mining district of Grenfell proper? Yes.
357. Therefore, for some miles in the direction of Young there would be some mining settlement, while no such settlement would exist east from Grenfell towards Koorawatha? That is so.
358. Going west from Grenfell towards Wyalong, is there anything until you get to Wyalong? There would be a little, but not a great deal of mining on the Bland.
359. Any mining development on the Bland is small? There is one place called Sandy Creek, 25 miles from Grenfell, almost on the road towards Wyalong, but that is the only place where anything payable has been obtained, and that has not been much.
360. Until you reach Wyalong? Until you nearly reach Wyalong.
361. What is your opinion of Wyalong from a mining standpoint? I have given my opinion frequently. I still think Wyalong is a permanent gold-field, and will maintain a mining population of 1,500 for many years to come.
362. That is in accordance with evidence previously given? Yes; in accordance with evidence I gave here in 1894 and since.
363. From Temora to Wyalong, what mining development is it reasonable to expect? There is Reefton, and also Barmedman; but I feel confident that sooner or later there will be a field between Wyalong and Barmedman.
364. Comparing the line between Grenfell and Wyalong, and that between Temora and Wyalong, you believe that in the vicinity of Barmedman, on the latter line, there will be an important mining centre the like of which will not exist between Grenfell and Wyalong? Yes; I believe that at what is known as Woodtown, and right across, there is an auriferous area running right through Yalgogrin. In fact, before Wyalong was opened, I reported to the Government that there was more likely working auriferous country between Yalgogrin and Barmedman than at Yalgogrin itself, and we see that Wyalong has since been opened. I am sure that between Wyalong and Barmedman sooner or later payable minerals will be discovered.
365. *Mr. Wright.*] Do you know where Bongongolong is? Yes, that is 7 miles from Grenfell on the road to Forbes.
366. Would you call that auriferous country? There is auriferous country between Forbes and Grenfell. At the Pinnacles, for instance, the reefs were worked thirty odd years ago. They remained unworked for some twenty-five years or more, and now they are returning payable gold.
367. The bulk of the country between Forbes and Grenfell is more or less auriferous, is it not? There is no doubt that we shall have a goldfield between Forbes and Grenfell in the future, and we should have had one there before had it not been for the freehold property. The Mining on Freehold Lands Act will overcome former difficulties.

368. *Chairman.*] Why do you think the railway should go from Temora to Wyalong? My opinion is that it would be in the public interest to open up that part of the country. It is a very dry area of country, and I believe that gold and other minerals will be found there if the country is once properly opened. Under the Mining on Private Lands Act we can get on to the land now where we formerly could not do so, and I believe that sooner or later we shall have a prosperous mining population between Temora and Wyalong. W. H. J. Slee.
23 Dec., 1897.

369. Which you do not expect between Grenfell and Wyalong? No; that is an agricultural district.

370. You do not expect any mining development there? No; but I regard Grenfell as one of the best mining districts in New South Wales, if properly handled.

371. *Mr. Humphery.*] What is the present mining population of Grenfell? I do not think the population actually engaged in mining at the present time exceeds between 200 or 300.

372. Were there as many in 1894, as at the present time? There was just the same number, and there has been for years; but Grenfell at one time had a population of 15,000.

373. There has been no increase in the mining population during the last three years? There has been no decrease. Recently, mining companies have taken up land there, and there is a probability of a great increase in the population.

374. Upon what do you base your expectation that there will be in the future a large mining development at Grenfell? I speak from an experience of forty-two years in mining. At one time I made a report on Cobar when only three men were at work in the Cobar copper-mine, and I stated then that Cobar would be a great copper-mining district. We see now that Cobar is going ahead as a mining district. Grenfell would do the same, only it has not had the capital, and it has not been developed. It has always been in the hands of poor parties who could not afford to go down to the lower levels.

375. Has there been no inducement for the investment of capital during the past few years at Grenfell? The inducement is there; the reefs are open for anybody, except perhaps where they are taken up under lease by someone.

376. Has there been any difficulty in the past in acquiring control of a sufficient area of ground to encourage the investment of capital? I do not think so. I think large areas in the shape of leases have been granted there without any trouble.

377. Then to what do you attribute the neglect of Grenfell? The men who have taken up these leases have, generally speaking, had no capital at their back, and when they got a capitalist they wanted to get too much out of him. Instead of being satisfied with fair prospects and fair treatment they wanted to get everything out of the capitalist, so that nothing was left to work the mines.

378. If there was a reasonable prospect of the realisation of the expectations which have been expressed to-day, do you not think the necessary capital would be forthcoming? It might be, sooner or later; but there has not been much capital available lately. There are some Victorian parties there now.

379. With regard to Wyalong, has there been any increase in the population since you gave evidence in 1894? The population of Wyalong, in 1894, was between 8,000 and 10,000. I suppose it is now between 2,000 and 3,000.

380. Then are we to understand that the population of Wyalong has diminished by 7,000 or 8,000? Yes. But at first there was a rush, such as commonly occurs. At Peak Hill, for instance, there was a population at first of 10,000, but in less than three months there were only about 2,000. It was at the height of the rush when the larger population was there.

381. You have been frequently to Wyalong? Yes.

382. What was the population, as far as you can remember, in 1895? In 1895, I suppose, it had fallen to 4,500 or 5,000.

383. And in 1896? About the same.

384. And now you say the population is between 2,000 and 3,000? Yes; and that is a population which is likely to be there for years to come.

385. Can you explain why the population has so rapidly diminished? Yes; I can easily explain that. On a new rush, perhaps the district or the zone, or part of an alluvial tract of country, may be prospected or worked for 10 or 12 miles, of which, perhaps, only 3 or 4 miles may be payable. Gradually, but surely, all the outside parties have to leave. There is no inducement for them to stop. Such was the experience at Gympie, for instance, and Charters Towers. At one time there was a very large population, but it has gone down, though there is still a large payable gold-field.

386. Can you explain the sudden loss of population between 1896 and 1897? That is explained by the fact that nothing new was found. Another reason is that formerly the claims were worked under the miner's right system, by which one man could only hold 60 feet along the line of reef, which would mean 480 feet for eight men. Leases are now granted, and the requirement as regards labour is not so great.

387. Do you consider that the present population is likely to continue there, or to increase? I hold that from 1,500 to 2,000 people are likely to be there for many years. I speak of a mining population, apart from agriculture.

388. Do you know the total population of the Wyalong district? I believe last year it was 3,000 or 4,000.

389. What has been the output of gold from Wyalong since 1894? I think you might reckon that 30,000 oz. of gold per annum has been got out of Wyalong from, say, the end of 1894 to the present time. That has been the average.

390. Do you think Wyalong is yielding that at the present time? Yes.

391. Are you speaking of the district of Wyalong, or do you include Yalgogrin, and other places lying between Young and Barmedman? Yalgogrin is 24½ miles distant from Wyalong, and I have always regarded it as separate. Yalgogrin was discovered before Wyalong.

392. Then you are speaking of Wyalong only when you say that the average annual output of gold has been 30,000 oz. I refer to the country surrounding Wyalong.

393. Upon what are your expectations based as to the development between Wyalong and Barmedman? I believe that sooner or later we shall have a gold-field between Wyalong and Barmedman.

394. Why do you believe that? From the auriferous indications along the surface. I was over that country before Wyalong was opened.

395. Has not the whole of the country been very closely prospected? No; although a population may have been there, the country has not been prospected.

- W. H. J. Slec. 396. Has the country between Barmedman and Temora been prospected? It has been prospected to a great extent, but not prospected fully. They have just gone on one particular line; they have not allowed for anything there might be on the one side or the other.
397. Are there any surface indications to lead you to suppose that there would be a great development in the area you have described? There are surface indications right through from Temora to Wyalong and Yalgogrin which make me believe that sooner or later we shall have as good finds of gold or other minerals there as we have had anywhere.
398. Are these surface indications unknown at the present time to the mining population of Wyalong and Temora? That I could not say. They might be known to some of them.
399. Have you in any of your reports indicated the existence of these surface indications? Yes; I sent in a report the last time I was examined here on the proposed railway to Wyalong, in which I indicated that gold would be discovered between Yalgogrin and Barmedman, and again, that gold would be discovered between Barmedman and Hillston, and right along the line on to Woodtown.
400. Have you made that public? Yes; the Government always publish these reports.
401. And still there has been, so far as you know, no investment of capital in that district? No. I may say, as far as that goes, that in 1883 I reported on the back country districts in regard to a place called Restdown, and last week the Member for Cobar suggested that I should visit there, because gold had been found. Although I reported in 1883, 1884, 1887, 1892, 1895, and 1896 on some of the districts, and my reports were published, it is only this year that gold has been discovered.
402. So that you have done your best by your reports to show the extent of the auriferous country you have described? Yes.
403. Have you travelled from Wyalong in the direction of the Lachlan? Yes; I have been from Wyalong right on to Hillston, and from Hillston on to Hay.
404. Will you point out on the map the auriferous country between Wyalong and Hillston? The auriferous belt extends west from Wyalong through Yalgogrin and then goes north through Ungarie. The range that is shown as intersected by a line running direct for Wyalong to Lake Cudgellico is also auriferous. Going towards Lake Cudgellico, any discoveries there have been in short shoots. In my opinion there is not a very great future for the mining enterprise adjacent to Lake Cudgellico. From Lake Cudgellico, going down the Lachlan towards Hillston, I do not expect very much. From Hillston towards Rankin's Springs, I have no knowledge that enables me to express an opinion favourable to the mining industry. Going south from Rankin's Springs towards Yalgogrin, I have no very great hope of a mining future.
405. Within how many miles of Wyalong in the direction of the Lachlan River, do you regard the country as auriferous? After you go from Wyalong you get into the metalliferous country for about 50 miles here and there. You can depend upon it that you will get similar reefs such as are now worked at Yalgogrin, some 25 miles further on.
406. Have any of the reefs at Wyalong been tested to any depth? One shaft has been sunk to a depth of 500 feet. That is the Light-house shaft, a prospecting shaft. They have certainly not as yet got any payable gold. In fact they have not got the reef. During the last month they got down to a depth of 500 feet from the surface through solid granite, and they are now cross-cutting to see if they can get the reef. The deepest payable gold so far at Wyalong is between 250 and 300 feet.
407. Who are the owners of the claims to which you refer? There are several claims about that depth. There is the Blue Jacket, the Mallee Bull, Bolter's, and the White Reef.
408. What has been the result at that depth? The reefs are still keeping on, only, as is quite natural, when the hard rock is encountered and water is met with, the ore becomes refractory. On the top where the atmospheric action has any power the ore is oxidised and becomes free, but as soon as we get below the water level, oxidation ceases, and the ore becomes refractory.
409. But has payable gold been obtained at the depth you speak of? It has been obtained at a depth of between 250 and 300 feet.
410. What is the width of the reef? The reef at Wyalong has at no time been very wide, but in some cases it is about 18 inches.
411. Is that the widest? I think the widest reef worked at Wyalong is, on the average, about 18 inches. At Grenfell the reefs were as much as 15 feet in width.
412. Have many claims gone down to a depth of 250 feet? There must be a dozen or more claims which are down to a depth of over 200 feet.
413. Are they still being worked? Yes.
414. Do you know whether the whole of these claims are payable? They are considered payable. The crushings have turned out well. Of course, the cost is greater below the water level than above it.
415. Do you look upon these claims as likely to be permanently payable? I think so. I think they have as good a prospect there as in some of the Queensland mines. At Charters Towers the formation is identically the same, and the reefs there were, to a certain extent, similar, being in granitic formation. It is a characteristic of the reefs in Australia that we have complete blanks in them.
416. *Chairman.*] Bearing in mind the future developments at Grenfell, and in the auriferous country you have described between Yalgogrin, *via* Wyalong, and Barmedman and north again of that, is it important that these districts should be as close to coal-fields as possible, or is that a matter of little importance? As far as gold-mining is concerned it is a matter of very little importance. In this case I do not think we shall have to deal with a large area of copper country. We might, perhaps, get a silver lode or so in the Tyagong district, but otherwise the country would be auriferous. The chlorination works would not use much coal. One establishment would do for the whole field.
417. Then the contiguity of coal is not of much importance? I do not think so.
418. Where does the bulk of the 30,000 oz. per annum, which you say is the product of the Wyalong district, come from? From the Wyalong reefs. It is only during this year that the Yalgogrin claims have really given any yield. They gave no yield before, because they were never worked and prospected.
419. *Mr. Humphery.*] Have you any figures to show the output of Yalgogrin and places other than Wyalong? Barmedman has very little at present. This information will not be available until the end of the year.
420. In expressing the opinion that a railway should go from Temora to Barmedman to Wyalong had you simply in view the probable development of mining there? Yes; I have always held the opinion that the Temora line should go by way of Barmedman on to Wyalong.
- 421.

421. Would not Barmedman, and the whole of the district to which you refer, be equally served by an extension from Grenfell to Wyalong? That may be. W. H. J. Slee.
23 Dec., 1897.
422. What distance would Barmedman be from the nearest point on the line between Grenfell and Wyalong? From 15 to 20 miles.
423. If that line were constructed, would not Barmedman be as well, or nearly as well, served as by a line from Temora to Wyalong? Yes, that may be; but I believe there will be more gold got between Temora and Barmedman, and the districts right through there, than will be got between Grenfell and Barmedman.
424. *Mr. Fegan.*] In reply to Mr. Humphery you said that mining at Grenfell was at a standstill? It is, to a certain extent; they are still working. I said that they were not developing the lower levels.
425. I suppose you are aware that in 1895 there were only fifteen leases; in 1896, twenty-five leases; while in 1897 there are thirty leases—that in other words, the number of leases has doubled in two years? Yes. I have already stated that lately Victorian companies have come and taken up land.
426. In your report you use these words: "The richness of the Grenfell quartz reefs is now a matter of history, several of which gave several thousands of pounds sterling to the working shareholders. In my opinion it only requires energy and perseverance, combined with an economical system of prospecting the deeper levels, to once more place Grenfell in the first rank of quartz-reefing districts of New South Wales." Do you still express that opinion? Yes.
427. Do you think a railway would give any impetus to gold-mining there? The machinery and everything would cost less to bring on to the field, and the transport of refractory ores for treatment might be reduced in cost.
428. In view of the treatment of the ore locally at Wyalong, and the consequent large consumption of fuel there, do you not think the question put by the Chairman as to the carriage of coal to the field is not an important one, in considering the route of the proposed railway? In my opinion it is of very little consequence. I am quite certain that as long as you or I live, Grenfell will never have to look abroad for a coal supply.
429. In 1895 the value of gold in the Grenfell field was £3,578, in 1896 it rose to £6,978? Yes; that is what I say—it only wants prospecting and developing.
430. In 1895 you made a report, in which you made reference to Victorian capitalists coming in to develop these mines;—does the influx of that capital partly explain the increase of gold? At the latter end of last year and the beginning of this year, the Victorian companies commenced to sink. They are now beginning to sink main shafts, and intend to develop the reefs to a greater depth than has ever been done before.
431. Can we attribute any increase in the yield to the fact of this capital coming into the field? I think so.
432. But you say they are only sinking now? They are taking out the old stopes as well.
433. Therefore, you attribute part of the progress made in the Grenfell mining district to the influx of Victorian capital? Yes.
434. And you say that with a greater amount of capital, and deeper sinking, the Grenfell mining district will be as great as ever? I think so.

William Henry Patrick Cherry, Chief Compiler, Government Statistician's Department, sworn, and examined:—

435. *Chairman.*] Will you give the Committee some information regarding the agricultural statistics in connection with the proposed railway? Taking the district of Grenfell first: It consists principally of these parishes—Brundah, Weddin, Kikiamah, Coba, Tyalong, Iandra, Cudymaguntry, Bumbaldry, Yambira, and Bungalong. Then on the other side there is the district of Bimbi, which at one time formed part of the Grenfell district. That consists of the following parishes:—Bimbi, Euroka, Berendedda, Caragabal, and Barbingal. Taking Grenfell and Bimbi together, the number of holdings is 287. The area alienated is approximately 360,000 acres, and the area of Crown lands occupied is 369,000 acres. The total area cultivated in that district, taking the figures for 1896, was 28,375 acres, the principal crop being wheat, of which the area was 24,815 acres, and the yield 229,402 bushels. In the Grenfell part of the district, the area cultivated was 22,907 acres, and the yield 213,171 bushels. In the Bimbi portion—that is, on the other side of Grenfell—the area cultivated was 1,808 acres, and the yield 16,231 bushels, or an average of over 9 bushels to the acre. For the past season the estimate for the two districts mentioned—Grenfell and Bimbi—is 29,546 acres under cultivation, yielding 344,556 bushels. In the Grenfell part of the district the area cultivated is estimated at 27,300 acres, and the yield at 327,600 acres, the figures for Bimbi being—area cultivated 2,246 acres, yield 16,946 bushels. These figures show an average for this season of 12 bushels to the acre, and I am inclined to think the actual yield will be a little more than that. W. H. P. Cherry.
23 Dec., 1897.
436. What is the ordinary average yield for Grenfell? I think 10 or 11 bushels. I will obtain accurate information on that point for the Committee. We have had information which would lead us to believe that the yield this year would be more than 12 bushels, because in some parts of the Grenfell district the crop this season is 14 and 16 bushels to the acre. Taking one year with another, 12 bushels would be very good for the Grenfell district.
437. What about other crops in the Grenfell district? The other crop is principally wheaten hay. The statistics show about 60 acres of grape vines and about 50 acres of fruit trees, which is proof that these products can be successfully cultivated.
438. Can you give any information showing the comparison between the present productiveness of the country between Young and Grenfell, and that between Koorawatha and Grenfell? I can give figures as regards the district between Young and Tyagong, which would be three parts of the way to Grenfell. Within that limit the number of holdings is 397, the area alienated is about 150,000 acres, and the Crown Lands occupied amount to about 5,000 acres. The total area cultivated is 15,000 acres, of which 10,698 acres consist of wheat, the yield being 101,842 bushels. Of these figures I would not regard more than two-thirds as applying to a railway from Young to Grenfell. Taking two-thirds the result would be:—Number of holdings, 260; area alienated, about 95,000 acres; Crown lands alienated, 3,000 acres; total area cultivated, 10,000 acres; the area under wheat being 7,130 acres, and the yield 67,895 bushels.
439. By how much would you increase those areas if you went as far as Grenfell? I am not prepared to say, because from Tyagong to Grenfell is included in a portion of the area which I have already given as belonging

W. H. P.
Cherry.
23 Dec., 1897.

belonging to the Koorawatha to Grenfell line; but it appears to me that a line from Young to Grenfell, when it got halfway to Grenfell, would serve the greater part of the district that would be served by the Koorawatha line. I think a line from Young to Grenfell would serve more people and a larger agricultural area than a line from Koorawatha. The figures with regard to the Wyalong district, taking the country which I consider would come under the influence of the railway from Grenfell to Wyalong, are as follows:—Area alienated, 161,000 acres; area of Crown lands occupied, 222,000 acres; total area cultivated, 4,745 acres; total area under wheat, 2,418 acres, yielding 45,000 bushels. For the present season it is estimated that the yield from 605 acres at Wyalong will be 9,680 bushels, which is about 13 bushels to the acre. I should like to make a comparison between Wyalong in 1896 and Wyalong in 1897. In 1896 there were only 136 acres, yielding 847 bushels. This year the area jumped from 136 acres to 605 acres. It is therefore evident that they can grow wheat at Wyalong, and if they can grow wheat at Wyalong and in the Bimbi district I have no doubt they can grow wheat in all the intervening country, with fair seasons.

440. *Mr. Hoskins.*] How do you account for the statement that there is a larger population to be served by a railway and a larger area of land under cultivation between Young and Grenfell than between Koorawatha and Grenfell? Between Young and Grenfell the distance is greater. It covers a somewhat larger tract of country, and the number of small holdings between Young and Grenfell is greater than on the other route. I can say from my own knowledge that the country between Koorawatha and Grenfell is splendid agricultural land.

441. And from Young to Grenfell? I do not think there is much difference.

TUESDAY, 4 JANUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Koorawatha to Grenfell.

Charles Edward Rennie, Chief Draftsman, Department of Lands, sworn, and further examined:—

C. E. Rennie.
4 Jan., 1898.

442. *Chairman.*] You were requested to furnish the Committee with some further particulars? Yes; I was asked for particulars of the land within 20 miles of the proposed line from Koorawatha to Grenfell giving the details of the tenure. They are as follows:—Alienated land, 531,960 acres; settlement and improvement leases, 17,260 acres; reserves, 142,330 acres; Crown land, 92,820 acres. The Crown land is thus more fully described: Leasehold areas, expiring from 1898 to 1900, 55,680 acres; held under occupation license, 33,120 acres; untenanted, 4,020 acres. The area of country I have just described is within 20 miles of each side of the proposed line converging to a point at Koorawatha to exclude the area under the influence of the existing line from Cowra to Young. In addition to the above particulars, the Committee asked me to give the particulars as to the land between the Young and Grenfell line, the Young and Koorawatha line, and the limits of the area just described. The area is as follows:—Alienated land, 79,860 acres; reserves, 2,860 acres; Crown lands, 1,000 acres. That is to the north-east only of the Young to Grenfell line. I have also particulars of the area south-west of the line from Young to Grenfell and east of the area before described within the 20-mile limit of the Grenfell to Koorawatha line. The particulars are—alienated land, 40,740 acres; reserves, 1,900 acres. I have also particulars as to the land within 20 miles on each side of the line from Young to Grenfell converging to a point near Young, so as to exclude the country served by the Cowra-Young line. The particulars are as follows:—Alienated land, 613,980 acres; settlement and improvement leases, 17,260 acres; reserves, 134,380 acres; Crown lands, 88,040 acres. The tenure of Crown lands is as follows:—Leasehold areas, expiring from 1898 to 1900, 59,420 acres; held under occupation license, 28,620 acres; untenanted, nil.

John Christian Watson, Esq., M.P., sworn, and examined:—

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443. *Chairman.*] You represent the electoral district of Young in the Legislative Assembly? Yes; I should like first of all to make a statement to the Committee. I may say that I do not favour the construction of a line from Koorawatha to Grenfell, believing that preference should be given one from Young reaching Grenfell by what is known as the White line, that is the latest survey made by the Department. In support of that view I should like to give the Committee a few particulars which have been collected by the railway league formed a little while ago at Young. A former Government proposed a line from Young to Grenfell; it is permanently surveyed; the land, 40 chains on either side, being within a railway reserve which has existed since 1883. That railway reserve, I presume, would only have the effect of precluding any claims for damage on account of severance to land which has been alienated since the reservation was made. I do not think any claims would extend further than that, but I may be mistaken.

444. Is the reserve in existence now? Yes; right through to Grenfell the reserve still exists, although it has not been kept from occupation. The land has been occupied, but I presume that in view of the reservation there could be no claim in respect of severance. Some of the land is leased; there are various titles. I am informed, and I believe credibly, that, in the alienation of land passing across this reserve, for railway purposes the State has preserved a sufficient area upon which to construct a railway. Therefore there would be very little cost on account of resumption. In any case the cost of resumption would be minimised. I mention the matter now in order that the Committee may look into it. The present settlement along the line is, no doubt, largely due to this promise. The construction of a line from Young would be warranted presently by settlement and trade along the route. The Committee at Young have interviewed fifty-eight landholders on the line, representing 102,122 acres; fifty-six holders asked for the line;

line; four holders, representing 17,900 acres would give the land required for railway purposes; three holders representing 10,520 acres would make concessions, and one other would probably do the same. 10,342 acres on the said holdings are under permanent farm crop; thirteen holders are increasing their areas under cultivation by 5,443 acres; twenty others are also increasing their areas. The annual sales from the above named holdings are—wool clip, 1,605 bales; wheat, 116,000 bushels; stock, 31,570 sheep; 1,077 cattle. The present population on these holdings is 445—that is upon those immediately contiguous to the surveyed line between Young and Grenfell. There are five public schools on the route, and three a few miles from it; whereas on the Koorawatha-Grenfell route there is only one school on, and one other near, the route. The arguments in favour of the construction of this line may be summed up as follows:—The country can be easily cleared at a low cost, there is ironbark timber for sleepers in the Weddin ranges, 10 miles west of Grenfell, with good box, and pine timber near Bimbi; ballast at suitable points; clay for bricks along the route, and plenty of water for locomotive purposes at Bulla Creek, Tyagong Creek, and Burrangong Creek. The distance from Young to Grenfell is 32 miles, over 3 of which are laid. The distance from Koorawatha to Grenfell is 30 miles. The line from Koorawatha would principally traverse private property in large estates thinly populated, whereas the Young-Grenfell line would pass through splendid agricultural land on which there are probably more farmers than on any 30-mile track anywhere in or around the districts of Young or Grenfell. The line to Grenfell should also be a section of what may be termed the federal route from Young to Werris Creek, of which 24 miles are already laid between Forbes and Parkes. It may also be mentioned that the Harden-Blayney line shortens the distance between places west of Blayney and the Victorian capital by no less than 375 miles; also by connecting the southern and western line, it enables residents of the Western districts to travel south, and residents of the Southern districts to travel west, without crossing the mountains or passing through the metropolis, and thus shorten the journey in either case by 115 miles. In the same way, the federal line would shorten the distance between Werris Creek and Demondrille Junction by 150 miles. The sphere of usefulness of the portion of the Harden-Blaney line, between Young and Demondrille, will not be complete until it is part of the federal line connecting Queensland and Victoria, which will further not only various local interests but also those affecting the Colony; by connecting the three great colonies it will be of advantage to Australia. The conveyance of fat and store stock from Southern Queensland and Western New South Wales to the Wagga, Albury, and Victorian markets, is of obvious advantage to the Colony. The chief points in the statement of the case submitted by the Young Committee seem to me to be these—that in the first instance, the line between Young and Grenfell has been twice surveyed; the latest survey, known as the White line, being adopted by the Department; that in view of these surveys settlement has taken place since 1883, in the expectation that the line would be constructed within a reasonable time. The holdings are also of smaller extent, and are very much more numerous than upon the other route, averaging only somewhere about 2,000 acres. Those would be the holdings immediately touching upon the surveyed line. Then further, there is at present just as much cultivation on the route between Grenfell and Young, as on the route between Koorawatha and Grenfell. The land is admitted to be equally good in both cases, and in view of the fact that the Railway Commissioners anticipate a loss of nearly £2,000 per annum upon the proposed line between Koorawatha and Grenfell, it seems to me that the extra population now existing between Young and Grenfell would go a long way towards making good that loss. I think some stress should be laid upon this extra population. Another point is, that upon the Young-Grenfell route there is a larger number of public schools, which in itself points to the existence of a larger population. I think the statements made by the Young Committee in regard to the existence of suitable railway material upon the Young-Grenfell route may be relied upon as correct. The material, in my opinion, would be more easily obtainable upon that route than upon the Koorawatha-Grenfell route.

445. The arguments you are now bringing forward are in the direction of cheapness of construction? Yes. Respecting the grades I cannot speak as an engineer; but in view of the fact that the line from Young to Grenfell would follow generally the course of the Burrangong and Tyagong creeks, I think it must follow that the grades would be pretty easy; either one or other of those creeks is never departed from until near Grenfell. The route also avoids the range which is passed, although at a low elevation, between Koorawatha and Grenfell. That range has to be crossed about 5 miles out of Koorawatha, whereas on the other route it is avoided.

446. On the Young route you pass over the toe of the range where it sinks into the creek? Yes; the line follows generally the line of the Burrangong and Tyagong creeks. As to freight charges, I think it would be found that they will amount to about the same in either case in respect to nearly all the goods sent over the route. I admit that the distance to Sydney, *via* Young, would be an extra 13 miles for passengers and freights; but, I think, the Committee will recognise that in some instances it is advisable to travel a greater distance, if by avoiding a heavy grade you can carry freight and passengers at a lower rate. That I think is evident from the decision in the case of the Moree to Inverell line.

447. You are taking for granted the grade? I am speaking not of the grade between Young and Grenfell, but of the grade as impinging on the extra distance between Grenfell and Sydney. I am referring to the grades on the southern line as compared with the grades on the western line.

448. *Mr. Hoskins.*] There is a longer continuous grade on the southern line between Picton and Mittagong than any grade on the western line, is there not? I know there are some heavy grades on the southern line, but the possibilities of cutting down the grades on that line are much greater than those which exist in the case of the western line. I think it would be preferable for the Commissioners to bring their produce a few miles further round to Sydney than to take it by the western line, as would probably be done if the railway were made *via* Koorawatha. The main point I would urge in that connection as against the extra distance *via* Young, is that the line would give the Grenfell people a better chance of using the two markets of Sydney and Melbourne than they would otherwise have. This brings me to the federal aspect of the case, and it seems to me that in laying out a railway you must provide for anything which seems to be a fair contingency. Inasmuch as there is the possibility of our having Federation within a reasonable time, I think the circumstance should guide us in projecting our railway lines, and certainly if the people of Grenfell desire to have connection with the two markets the best way of affording it is *via* Young. Another point I would urge upon the Committee is that between Koorawatha and Grenfell the line would pass through only large freehold estates, and although no doubt large areas of those estates are under crop the land is being so utilised with no intention on the part of the owners to sell any portion of it. The system upon which cultivation

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is now being carried on on all these large estates is known as the "halves" system. The men farming under that system do not live upon the estates; they merely go there to plough and put the crop in and afterwards to take it off. They have their homes away from the estates altogether. In fact they are not settlers at all in the ordinary sense of the term. It must further be recollected that a fair proportion of land which has been already cropped upon the "halves" system has gone back to its original state—that is, to the carrying of sheep, in the terms of the agreement entered into by several of the large landowners and the "halves" men, in which it was stipulated that lucerne should be sown after three years. The "halves" men go off the land under the terms of that agreement and the land reverts to the carrying of sheep only, which, as the Committee are aware, would not mean the same amount of traffic for a railway as would farming in the ordinary sense. It seems to me, therefore, that a large proportion of the land at present under crop between Koorawatha and Grenfell upon these estates will in a reasonably short space of time revert to its original pastoral condition, mainly because the land will not stand continuous cropping and because the "halves" system at present in operation gives the cropper no permanent interest. He would naturally take all he could out of the land within a short space of time, and it is to the interests of the owner that this should be done. He can afterwards spell the land, and it is found that the land will carry more sheep than it formerly did, before cropping was started. I fancy, therefore, that it would not be wise to build too much upon the possibility of the whole of the area now cultivated between Koorawatha and Grenfell being retained under cultivation. The holdings upon the Young-Grenfell line being smaller, it follows that the settlers there must continue to cultivate, otherwise they could not live, the holdings not being large enough to enable them to make anything out of them by running sheep alone, they must cultivate more intensely than need be done on the holdings on the other route. One other point concerns the federal aspect of the line from Werris Creek to Young *via* Dubbo, Parkes, Forbes, and Grenfell. That line has been projected for a long time past, and although I would not myself advocate the construction of the whole of it now, I do think it would be wise to keep that project well in view in connection with railway construction. It is well known that right down from Werris Creek at about the same distance inland there is a continuous belt of good country, and independently of the federal aspects of the line, I fancy that the local traffic from that splendid wheat-country, right through, would pretty well pay for the construction of a railway. I merely mention the matter to direct the attention of the Committee as closely as possible to that aspect of the case. I think it is one which will repay some consideration. Coming to another aspect of the proposal, I believe the Committee in considering the line to Grenfell, will have to consider the propriety of extending it on to Wyalong. I have not been over the whole of the country between Grenfell and Wyalong; but I have been over a good part of it, and from my knowledge of it, I do not think you can compare the extension from Grenfell to Wyalong with the extension from Temora to Wyalong, and thence on to Hillston. The land out of Grenfell to the west, for about 25 miles, is good wheat-growing land; but the same argument applies to the land 20 miles to the north-west of Temora towards Barmedman. There is good wheat-growing land there. You approach inferior country, in either case, within 20 miles of Wyalong; but it may eventually prove good country within that radius for a variety of purposes. The mallee country, for instance, may prove to be good country for the growth of grapes and other things; but at the present time it is so far from market that it is not available for those purposes. To get from Grenfell to Wyalong you have also to pass the Bland country, which, as everyone knows, is not fit for agriculture, and which is also liable to periodic inundations, from the backing-up of the Bland Creek. I believe that the cost of construction across the Bland country would be materially increased from the liability to floods. There would be a necessity for viaducts similar to those at Wagga. As against that, you have on the Temora line an easy grade all the way, and when it is contemplated to extend the line to Hillston, it seems to me that there is a still further argument in favour of the Temora connection, because the distance between Hillston and Sydney, whether *via* Temora, or *via* Grenfell, is practically the same,—with this additional advantage in favour of Temora, that there is only 40 miles of construction between that point and Wyalong, as compared with 57 miles between Grenfell and Wyalong. That is a material point when you have between your two termini about the same distance whichever route you undertake. The great advantage, having regard to the connection between Hillston and Wyalong, is, that there would be no loss of distance in getting to Sydney, while there would be an immense gain in reaching Melbourne; and there again the federal aspect of the question comes in. Independently of that there is the possibility of our sending goods to Melbourne when the crops there are a failure, and when our people have good seasons. I may also mention that between Temora and Wyalong there is a great possibility of mining development. There are at the present time at Reefton, about 12 miles from Temora, quite a number of good reefing claims at work. There is a sort of loop road which at present goes to Reefton, which lies a little to the east of the main road, and of the surveyed line to Barmedman. At Barmedman also there are two or three companies which have recently re-organised. I may mention especially the Fiery Cross. A considerable amount of work is being done there. They are endeavouring to strike the lode at a deeper level than that at which it was previously worked. In addition to that there are, I do not know how many thousand tons of tailings to be cyanided. That of course would not be a permanent industry; but there is good mining country between Wyalong and Temora with the possibility of development at any time, and I think that circumstance might be taken into consideration. I might also mention, that in the event of the railway being taken from Temora it would extend the area from which ironbark can now be obtained at a payable rate for use by the Railway Commissioners for our railways generally. The Committee are probably aware that the distance at which ironbark can be profitably obtained is limited to within about 20 miles of a railway. When you get beyond that distance the cartage becomes too heavy to admit of its paying. If the route I suggest were adopted it would be practicable to get ironbark carried 20 miles further than it can at present be carried. It is a noted district for ironbark and will be so for many years to come. I might also point out that Temora has been accustomed to trade over the area of which Wyalong forms the centre, and I think that relation could be preserved. Another factor in the case is that a line from Wyalong to Grenfell would take a large amount of traffic away from the existing line from Cootamundra to Temora. The last report shows a certain amount of loss upon that line, and I think that any reduction of the present traffic would be a very big mistake. No doubt that reduction would take place if a line were made in the other direction. With the exception of a few tons which are carted from Young at the present time to Wyalong, the whole of the traffic is from Temora.

449. I understand you to say that a great deal of the information with which you have furnished the Committee is given by the Young railway league? Yes, they have collected the facts.

450. I gather that the people of Young are opposed to the proposed line from Koorawatha to Grenfell? J. C. Watson,
Esq., M.P.
Yes.
451. Have you heard the opinion of the people of Grenfell on the subject? I have not heard it expressed as from the body of the people of Grenfell; but the attitude of individuals from Grenfell who have spoken to me on the subject, has been that they did not care where the railway came from so long as they obtained it.
452. The Committee have been informed that the people of Grenfell are in favour of the Koorawatha line? As to that I cannot express an opinion. Individuals have told me what I have mentioned.
453. I suppose you will admit that in the construction of a railway in that district the opinion of the people of Grenfell, seeing that they have not a railway at present, whereas the people of Young are already served by one, ought not to be overlooked? I quite think so; but I think also that the interests of the people between Young and Grenfell, who were induced to settle there upon the promise of a railway, should not be overlooked either.
454. Can you tell me when a definite promise was made that the railway should be constructed from Werris Creek across the country to Young? I do not think any promise has been made in regard to the line from Werris Creek. It has been merely advocated from time to time by a number of persons.
455. Do you think it is likely that it will be constructed within a reasonable time? I do not think it will be completed within a reasonable time; but possibly sections of it may be constructed.
456. You mentioned, among other things, that the line you advocated would be part of a federal system, facilitating the conveyance of produce to Victoria? Yes.
457. Is there not such a railway in existence at the present time in the line from Blayney to Harden;—is it not possible to convey fat stock to Melbourne by that line if necessary? Yes; but it is anticipated that a greater proportion would be carried by a line right down from Werris Creek. That line would admit of a more direct connection with Queensland.
458. What proportion of stock, do you think, would come from that direction? I could not give you an estimate.
459. What would the traffic consist of chiefly? It would be mostly stock.
460. Do you not know that the Darling District, the Bogan District, and the Macquarie District are more heavily stocked than is the Werris Creek District? I do not anticipate that whatever stock came from Werris Creek would come from the immediate locality; it would come from the north—possibly from South Queensland.
461. Do you know that the Blayney and Murrumburrah line was constructed and is actually used for the conveyance of stock from the Western districts, and of course for the conveyance of passengers to the south, and that that line does not pay or do anything approaching it? I am not able to say whether it pays or not; this year's statistics are not available.
462. But it has not paid since it was opened? I believe it has not paid well; but that is largely because they adopted a bad route. Instead of picking out the easiest grades, they chose some of the worst.
463. But the grades from Blayney to Harden are for more than half of the distance comparatively easy? Yes; but between Harden and Young they chose grades which have added immensely to the capital cost. At the other end also it is a badly laid out line.
464. Is not that argument rather against your proposal to take the line from Young to Grenfell? The grades are all easy coming this way, but the line might have been constructed at a less capital cost if easier grades had been selected in the first instance.
465. You say it is anticipated that there will be a serious loss upon the line from Koorawatha to Grenfell; do you know that the Commissioners favour that line? I am quite aware of that; but they had not an opportunity, or did not think it their duty, to report on any alternative line; they simply reported upon that one route.
466. Do you know that Mr. Harper has travelled over every portion of the district, and is still in favour of the Koorawatha-Grenfell railway, because that line would be at right-angles from the existing railway, and would therefore give a larger amount of accommodation to people who have not the benefit of railway communication at the present time? I understood him to admit his inability to form an opinion as to the propriety of the alternative route, and to say that he had not been for some years over the route between Young and Grenfell. I also understood him to say that he had not been instructed by the Railway Commissioners to make any comparison between the two routes.
467. Mr. Harper said that he had been over the district from Young to Grenfell, and that he favoured the construction of a line from Koorawatha to Grenfell, because it was at right-angles to the existing line, and would therefore provide greater accommodation? I happened to be here when Mr. Harper gave his evidence, and I understood him to say that he did not care to express his opinion upon an alternative route.
468. You said that the line between Koorawatha and Grenfell would traverse large estates, the owners of which were farming their land upon the "halves" system with the intention that it should afterwards revert to its pastoral condition? Yes.
469. Are you aware that the Committee have it in evidence that many of the farmers upon that route come from the colony of Victoria, and have purchased land from the proprietors of the estates? I should like to know of a case; I have not yet heard of one. I have taken a great deal of interest in the "halves" system, and I know a great number of those who are engaged in it, and I know that until last year very few were able to keep themselves going. They had a little good fortune last year on the whole, and they managed to clear a little money; but I have not been informed of any one case where the farmer has bought land from the proprietor; and had that been done I think I should have been informed of it by persons who are anxious to let me know what is going on.
470. The Committee have it in evidence that not only is the land being taken up on the "halves" system, but that other persons have taken up land in the neighbourhood and are still taking it up and cultivating it? There is none available between Grenfell and Koorawatha any more than there is between Grenfell and Young. There are only a few reserves left.
471. Would not a railway from Koorawatha to Grenfell, as a national work, be preferable, seeing that it would extend railway communication ultimately to the people on the Lachlan; down towards Hillston? I suppose it might be said that Koorawatha would be the better starting place if it were intended to go on
to

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to Hillston; but knowing as I do the character of the country between Grenfell and Wyalong, over which it is likely the line would be constructed, I do not advocate railway construction in that direction, nor do I think it likely that that railway would be made. In any case, having regard to possible traffic to the south, people would still prefer Young as the point of connection.

472. What traffic are you referring to? In some years there would be traffic in wheat to Melbourne; but there is always a certain amount of stock traffic in that direction from the northern colonies.

473. Do you know that wheat cannot be carried that distance at a profit at the rates charged? I do not know that.

474. *Mr. Humphery.*] Were you here when Mr. Harper gave his evidence as to the settlers between Young and Grenfell being served by the construction of a line from Koorawatha to Grenfell? Yes; I cannot coincide with him in the opinion he expressed; because if you can argue that the people between Young and Grenfell would be as well served by the Koorawatha line, you might just as well argue the other way about—that the people between Koorawatha and Grenfell would be as well served by a line from Young to Grenfell. A large quantity of wheat at present grown within the suggested influence of the line from Koorawatha to Grenfell goes to Monteagle, on the Harden-Blayney line.

475. Would not similar conditions exist for a certain distance upon the Young-Grenfell line;—for a certain distance, would not the produce within that distance be still brought to Young? Yes; no doubt in either case that condition would exist.

476. Take the line you indicate between Young and Grenfell,—how many miles outside of that route would be served by the construction of the line? I should think that from 10 to 15 miles would be benefited. Of course those nearest would be benefited most.

477. What is the distance from Young to Koorawatha? Roughly, about 28 miles.

478. As far as you can estimate, what would be the greatest distance of settlement between Young and Grenfell, from one or other of the systems, assuming the line from Koorawatha to Grenfell to be constructed? I should think about 25 miles; but you must bear in mind that, notwithstanding the conditions you establish in constructing the line from Koorawatha to Grenfell, on the north or north-east, as far as the influence of a railway is concerned, you would gain on the other hand towards the south-west by the influence of the Young to Grenfell line. Either route would influence a similar area of country.

479. Your contention is, that as large an area would be served to the south-west of the Young-Grenfell line as would be served to the northward of the line from Koorawatha to Grenfell? Yes.

480. Your further contention is, that settlement is closer on the line from Young to Grenfell? Yes; the settlement is much closer on that than on the other lines.

481. Does it occur to you that a greater area would be within a shorter distance of the Grenfell-Koorawatha line than of the Grenfell-Young line? No; I cannot see it in that way. By taking the Young to Grenfell route you make up what you lose at Koorawatha; I am speaking now of what you would gain to the south-west of the Young connection.

482. With regard to the distance from Grenfell, it would not be affected appreciably by the route either from Koorawatha or Young; an area within 25 miles may be regarded as suitable for agriculture; it is a question between Young and Koorawatha as a starting point? Yes.

483. Would not the shorter distance from Koorawatha, to some extent, influence construction, leaving out of consideration the federal aspect? Leaving the federal aspect out of consideration, I do not think the extra few miles of distance to Sydney would be any disadvantage, because they would have, even at present, the possibility of a market in the south, in regard to which there would be a material advantage in coming from Young. The Grenfell people would have a better chance of attacking the markets to the south, while they would be at no disadvantage as regards the Sydney market, because their stock and produce—anything of material importance—would be carried at the same rate, whichever route was taken.

484. What would be the difference in distance? As between Grenfell and Sydney, there would be about 12 or 13 miles in favour of the Koorawatha route.

485. I am speaking now of the southern market? There would be a difference of about 28 miles in favour of Young.

486. What produce may be expected from Grenfell which would be marketable to the south of Young, and which would not come to Sydney? In the case of wheat, I admit, there is only an occasional market in the south; but stock might go in that direction at any time, owing to the possibility of getting to the Monaro country in the heat of summer. A large proportion of stock from within a distance of 15 or 20 miles of Young last year went towards Monaro owing to the drought.

487. Do you lay much stress upon that argument? Not a great deal.

488. It is an open question whether the starting point should be Young or Koorawatha; but as far as Grenfell is concerned it would be equally well served by a branch from either route? Yes.

489. *Mr. Trickett.*] I suppose you recognise that neither route to Grenfell presents any engineering difficulties;—they are on even terms in that respect? Speaking as a layman, I think the route from Young would be the better one—that is, judging from the outward contour of the country.

490. The evidence of engineers is that both lines are comparatively level, the worst grade being 1 in 75? I should imagine that that would be correct.

491. Do you regard this line, either from Young or from Koorawatha to Grenfell, as a local line, or do you regard it as a line having possibilities of extension? As I have indicated, I think the only desirable extension would be towards Forbes. I would not favour the extension towards Wyalong, but I think that even as a local line it would pay.

492. If the line is one capable of extension, does it not seem rather an objection that for all time there should be the extra haulage involved in going from Young? It depends where you want to go to. If you have within a few years from now a market in Melbourne without any border duties, it is probable that a large proportion of the traffic would go in that direction. Then the line *via* Young would represent a big saving.

493. You advocate the extension from Young from the point of view of the southern market? That is one reason.

494. But if the market should continue to be at Sydney, as at present, people would labour under the disadvantage of the extra 10 miles or so of haulage? But under the zone system they would pay no more on their goods. The extra traffic from the increased population on the Young route would make up to the Commissioners more than they would lose by the extra haulage.

495. Would not persons have to pay for the extra haulage? On all the larger lines of stock and produce they would pay no more. You will see that Mr. Harper, on page 11 of his evidence, gives a detailed statement respecting that matter. J. C. Watson, Esq., M.P.
496. Except with regard to wool and grain there would be slightly varying prices? Yes; and hay, straw, and chaff are on the same basis as wool and grain. 4 Jan., 1898.
497. But on other commodities there would be a charge for extra haulage? Yes; there would be a slightly extra charge on a number of things.
498. Looking at the map, does not the line from Koorawatha to Grenfell, assuming that it is extended, or even *per se*, present the appearance of a much more equal division of carriage between the other parallel lines, the Molong-Parkes line and the Junee and Coolamon line? No doubt it does look so; but you have to consider the conditions as well as mere appearances, and one condition is the extra population on the Young route. For instance, it has been held advisable in some cases to take a line to a town with population rather than go straight past it, even though it has necessitated an extra distance.
499. Independently of mere appearance, does not a line starting at right-angles, such as the line from Koorawatha, supply a bigger district than would a line starting from Young which for 4 miles would run along the existing railway, and which would afterwards run at a small acute angle for a considerable distance? I admit that the line at right-angles, other things being equal, would be the best; but, of course, I do not see that things are equal in this instance.
500. Have you considered the fact that there is already between Young and Grenfell a good macadamised road the whole way? It is not macadamised the whole way, but it is a very fair road. Of course there has never been a road constructed on the other route, because there has never been any population to serve.
501. But between Koorawatha and Grenfell a considerable amount of cultivation already exists? Yes.
502. Is that not a large factor in the way of feeding a railway? There is sufficient road to enable the people there to get an outlet for their produce, viz., in the direction of Monteagle, the nearest railway station, or at Young. Mr. Green's wheat goes from Iandra to Monteagle.
503. There is considerable development between Koorawatha and Grenfell? Yes, on the "halves" system.
504. More than between Young and Grenfell? I do not think there is. There is not so much development as far as produce is concerned. There would be a greater amount of produce along the Young-Grenfell line than along the Koorawatha-Grenfell line.
505. Is there not more settlement along the Koorawatha-Grenfell road? No; it is all on the Young-Grenfell road.
506. Has not the settlement on the Koorawatha-Grenfell road increased very rapidly? There has been a spurt lately on account of the introduction of the "halves" system by Mr. Green and Mr. Woods.
507. Are you aware that Mr. Harper, in his evidence, stated that the area of land within what he considered would be a trafficable distance on the Koorawatha to Grenfell line was between 340,000 and 350,000 acres? Yes.
508. Do you agree with that statement? I have not had an opportunity to make minute inquiries; but I should fancy that that statement would be pretty nearly correct. A similar influence would exist on the other route.
509. You say that between Young and Grenfell there would be no expenditure on land resumption? I do not say that; but in 1883 a railway reserve, 40 chains in width, was proclaimed on the surveyed route; and I believe that reserve is still in existence, and that its existence would minimise the cost of resumption. In addition to that, I think a fairly large number of holders, considered in relation to area, on that route are willing to give their land free. The railway league has ascertained that.
510. I believe the land-owners on the other route have given a similar promise? I believe that is so.
511. Mr. Clarke.] You are thoroughly acquainted with both routes? Fairly so; I have not been over the whole of the country between Grenfell and Wyalong.
512. But you say that the population is denser on the Young-Grenfell route than on the other route? Yes, much more so.
513. Is there not a large area of land under cultivation on the "halves" system in the neighbourhood of Grenfell? Yes; on the estates of Mr. Green and Mr. Woods, and one or two others, a large area has lately been put under cultivation, but a great portion of that land would be equally served as far as carriage is concerned by either route.
514. You say that the farmers who have come to the district from Victoria do not settle there, but are merely birds of passage? They are what we used to call "croppers"—men who take off a few crops and then shift to another place.
515. How long does it take to exhaust the land? It varies very much in different districts. I know some land which has been under wheat for thirty years and which is still producing fair crops; in other cases five or six years will exhaust the land for wheat. You must then either spell or rotate. Our climate does not allow of rotation as one would wish to see it carried out.
516. Would not what you say about "cropping" apply whether the land was held in large or small areas? Persons with a smaller area can rotate crops. They can grow a greater variety with a chance of success. Persons with a small area always carry a certain number of sheep, and the land can then be brought back to a condition for growing crops.
517. Your opinion is that farmers on a small scale can do more with their land than can farmers on a large scale? I think small holdings are more likely to give remunerative employment to a railway.
518. You say that some of the land between Koorawatha and Grenfell which has been cropped for a few years is now being laid down in lucerne? Some of it is already under lucerne. Some of the land on Mr. Green's estate is now under lucerne and is being depastured.
519. After a few years it would be possible to grow wheat again upon that land? In all probability the greater portion of the land now under crop will be under lucerne for pastoral purposes within a reasonably short time. It may be put under wheat again at some distant period.
520. You think the Young route would be the better route for farmers so far as the Victorian markets are concerned? Yes.
521. Are the Victorian markets equal to the Sydney markets? It depends upon local conditions. If they have had a failure and we have not, our people can send their stuff there profitably. If the converse conditions prevail they have to send up our way.

- J. C. Watson,
Esq., M.P.
4 Jan., 1898.
522. Is it possible now for wheat or flour to be sent to Victoria at a profit? I do not think so with the duty they have; but I have in view the possibility of the duty being abolished within a reasonable time.
523. *Mr. Lee.*] You see on the map, marked yellow, the area which Mr. Harper relies upon to supply the projected line with wheat? Yes.
524. I suppose that a portion of the land lying to the eastward of Grenfell would also be served by a line from Young? Practically the whole of the area coloured yellow on the map would be served by a line from Young. All, with the exception of a small part of the south-eastern section in yellow, would be served by it, with the addition of an area to the south-west of the Young-Grenfell line that would more than make up for what would be cut off in the other direction.
525. Is there much agriculture on the western side of Grenfell? No; very little at present.
526. You know the railway authorities rely upon some 25,000 acres being brought under cultivation in that direction? With the extension of a line to Grenfell, from whatever point it comes, I believe that for 25 miles to the westward a large area would be brought under wheat.
527. The development taking place now between Koorawatha and Grenfell is because that land has become available of late years, whereas the development between Young and Grenfell took place earlier, because the land was available earlier? That is hardly the case. The land between Koorawatha and Grenfell was available just as early as was the other land, but it unfortunately fell into the hands of a few individuals who still retain it. It was available for them to cultivate previously, but it is only lately that some of them have gone into the "halves" system.
528. What I meant was that the land between Young and Grenfell had been largely alienated under conditional purchase? Yes; that is correct.
529. You are clearly of opinion that the district is entitled to railway extension? I am fully convinced that the line to Grenfell will pay, in any case; but I think it would be better to construct it by the route I suggest.
530. Apart from whether the connection should be made from Koorawatha or from Young, do you think the country in the vicinity of Grenfell—that is to the westward—would justify extension in that direction? I do not think the country between Grenfell and Wyalong would justify an extension of a line to Hillston, in that direction. The area shown in yellow on the map by Mr. Harper, as likely to give wheat to a railway, is, I think, practically the limit of cultivable land. Between that point and Wyalong, on the Bland country, you get a lot of low-lying land, which is known to be only pastoral country. On the other side you rise again towards Wyalong; still the land is comparatively poor, and I do not think it would be wise, from an engineering point of view, to take the line from Grenfell to Wyalong.
531. You do not agree with that extension? No.
532. Are you of opinion that Wyalong should be connected with the railway system? Yes; from Temora.
533. Then you think the line under consideration should be treated as a cockspur line only? For the present I would treat it as a cockspur line; but later on it may be advisable to extend it to Forbes, as part of the cross-country line from Werris Creek.
534. Would that be a judicious division of that part of the country? Yes; a large area of the country in the basin of the Lachlan would afford traffic. Even as a local extension, as between Forbes and Grenfell, the line might be justified; but taking the broader view of the work—that is considering it as part of the line from Werris Creek—there are additional reasons for constructing it at a later period. In present circumstances I should regard Grenfell as the terminus; the line would pay, even if it stopped there.
535. *Mr. Wright.*] You paid some attention to farming on the "halves" system? Yes.
536. Do you look upon it as merely spasmodic? I regard it as a temporary expedient.
537. You think the land so treated will again become grass land? Yes; the experience of large holders is that growing stock and wool and so on offers the least resistance in the way of worry and trouble. Most large owners therefore, prefer it. I think that the main inducement leading to the present development of the "halves" system is that the land after being cleared of all timber, whether dead or green, will carry a great many more sheep than before.
538. Your impression is that the landowners will be content to allow the exhaustion of the land by wheat crops out of which they make a large profit, and that they will then allow it to revert to grass? Yes; there is no inducement to them to conserve the soil by allowing it to lie fallow.
539. Do you know the country between Koorawatha and Grenfell? Yes.
540. You are aware that there is no cultivable land within a few miles to the northward of that line? Yes; there is a range of mountains when you get a short distance out to Koorawatha. The range runs right up towards Cowra.
541. You would not call that land cultivable? No; but at Cowra there is splendid land.
542. The land likely to be brought under cultivation is mainly on the southern side and at the north-western extremity? Yes; but not to the north-east.
543. Do you know the land immediately to the westward of Grenfell? Yes.
544. How far in that direction is the land fitted for the growth of wheat? I think you might say for 25 miles—nearly to the Bland Creek. I am speaking now of the line between Young and Grenfell.
545. Would it extend as far as Memagong? Yes; the reason you can go nearer to Yeo Yeo in that direction is that the Bland country opens out towards Lake Cowal, whereas towards Memagong it narrows to a comparatively small plain.
546. Considering that the area to the north-east of the proposed line from Koorawatha to Grenfell suitable for cultivation is limited, would not the line from Young to Grenfell open up a larger area of land fitted for settlement? Yes; I think it would, because most of the loss occasioned through going at rather an acute angle to the existing Blayney-Harden line would be made up by the area which you would gain to the south-west. What I mean is that you would take in more in that direction than the other line would take in to the north-east.
547. Is the land at Memagong likely to be cultivated to a great extent if a line were made from Young to Grenfell? Not to any greater extent than the land between Koorawatha and Grenfell; it is held much in the same way—that is in rather large holdings. I dare say they will go in for cultivation as they are doing now; but it will not be permanent unless the holdings are cut up.
548. Is there not a larger number of conditional purchases in that direction? Yes; and from that source there is the likelihood of more permanent cultivation.
549. I suppose you are of opinion that a large area of land west and north of Grenfell would be cultivated whether a railway were taken there from Young or Koorawatha? Yes; the same influence would operate from whichever point the railway started.

550. Have you been across the country between Grenfell and Wyalong? Not between Grenfell and the Bland. J. C. Watson, Esq., M.P.
551. A large area of that country is simply pastoral country? It varies very much. At the point I usually cross the Bland, near Morangerell, the purely pastoral country would not be more than 12 miles wide; but further down, where the line would cross the creek, the belt of pastoral country would be wider. 4 Jan., 1898.
552. You think the width of land not suitable for cultivation is greater towards Marsden than it is at Morangerell? Yes.
553. And it is in that direction that the proposed line would cross? Yes.
554. You advocate the connection between Temora and Wyalong? Yes; in either case for the first 20 miles you get good wheat-growing country: but in going from Temora you would have shorter construction, and would be about the same distance from Sydney.
555. Do you know the country between Wyalong and the Bland Creek? Yes; it is similar to the country between Barmedman and Wyalong; by whichever route you reach Wyalong you pass through much the same class of country.
556. Mr. Harper said that if a line were constructed from Young to Grenfell instead of from Koorawatha to Grenfell the people to the south and west of that place would for all time to come be subject to additional haulage of their produce? Yes; going to Sydney he is correct. There are a few miles extra haulage, but he demonstrated from the return he presented that there would be no extra charge to Sydney, whereas, going to the south, there would be a considerable saving.
557. The produce of the district is exclusively wheat and wool? Yes; but hay, straw and chaff would come under the same rate. It would make no difference so far as those things are concerned, whether the line went from Young or Koorawatha.
558. There would be a little extra haulage upon the stores back? Yes; supposing Sydney to be the objective point, but there are also the interests of the people on the road to Grenfell to be considered.
559. Those persons have been induced by the Crown to take up land on the supposition that a railway would be made in that direction? All those who have taken up land there since 1883 have taken it up upon that understanding.
560. For many years it was contemplated that the connection with Grenfell would be made by Young? Yes; no other route has been talked of until within the last eighteen months.
561. The Koorawatha route is a new idea? Yes, comparatively.
562. *Mr. Hassall.*] As to the connection with Young, would it not take away a certain amount of trade from Young which now comes into it? Yes; some persons have the idea that Young will lose a little trade which it now gets. Some of the business people say that persons who now come to Young and who are within 15 miles would go by the morning train to Grenfell, do their business there, and return. It is not a matter which concerns me particularly.
563. The point I wished to elucidate was this;—that Young is now a distributing centre for a considerable area which is now under cultivation? Yes.
564. And the probability is that an extension from Young to Grenfell would take away a considerable portion of that trade? It might do so, but as against that you must consider the people between Young and Grenfell; they would get a corresponding advantage.
565. They would be benefited by the extension? Yes.
566. That would more than counterbalance any loss of trade? In the interests of the country it would more than counterbalance any loss of trade which Young itself might suffer.
567. With regard to the southern markets, you say that the line from Grenfell to Young would give people access to the southern markets;—would not the line from Koorawatha also give them a choice of markets? It would be 28 miles further south *via* Koorawatha, and it would be only 13 miles nearer Sydney by the western line.
568. Do you know the exact distance between Young and Grenfell by road? Thirty-two miles; the line follows the present road for 3 miles, leaving 29 miles to be constructed.
569. The distance between Koorawatha and Grenfell is about 30 miles? Yes.
570. So that the distance as between Koorawatha and Grenfell, and Young and Grenfell is practically the same? Yes.
571. In coming to the south there would be the additional 28 miles between Young and Koorawatha to be traversed? Yes.
572. As to cultivation on the "halves" system, do you know that many men who are not in a position to start for themselves are enabled by that system to cultivate land and gradually acquire a little money enabling them to start upon their own account? I admit that it gives men without capital an opportunity to find employment for themselves; but I do not admit that there are any men in my district, and I have taken a great deal of interest in the matter, who have been able to make a start for themselves on account of any profit they have made out of the "halves" system. I have not known of one instance where they have made sufficient money to enable them to do that.
573. It is an advantage to a man possessed of farming knowledge to be able to put it to profitable use by obtaining land? It has been an immediate advantage to such people, but I do not think it is a desirable system from the point of view of settlement. It has been an immediate advantage to some persons to have this way of employing themselves temporarily, and that is all one can say for the system. I admit at once that it is better to have land cultivated under "the halves" system than that it should not be cultivated at all, but it is not a thing to be encouraged if we can do without it.
574. It has been proved in evidence that men have been able under the system to start upon their own account; that they have been enabled to get land, and to live fairly comfortably upon it? Yes; but there is one point which has been overlooked in evidence of that description, and it is an important one: What were these people charged by way of interest on the advances made to them to cover their machinery and rations. In some cases men have been known to get a fair return for their work, but have been charged up to 12 per cent. interest, which practically swallowed up everything they got, and left them nothing. I know of several cases in the district where men are now engaged upon their fourth harvest; they have made nothing in three years.
575. Still they have been enabled to live? Yes; but it would be hard luck if they could not make their "tucker" somehow.
576. You know that the country round about Koorawatha is very good? Yes; there is good country in the district whichever route you take. 577.

- J. C. Watson, Esq., M.P.
4 Jan., 1898.
577. Does the country between Grenfell and Young compare favourably with that between Koorawatha and Grenfell? It is as good, and, probably, better country. The whole of that tract of country, except where the ranges jut out, is good wholesome country for either cultivation or grazing.
578. The country on the slopes of the Weddin Mountains is similar? Yes; no doubt on the slopes of the Weddin Mountains, and below them for some distance, there is splendid country; but from whatever point you start that country would be tapped equally well.
579. They have discovered an easy grade running through the Weddin Mountains, instead of coming round them in the direction of Bimbi; you are aware of that? Yes; I have nothing to say against the construction of a line towards the Bland; but beyond the Bland the country is not so good.
580. And you say that settlement on the Young-Grenfell route is more extensive than upon the Koorawatha-Grenfell route? Undoubtedly.

THURSDAY, 3 FEBRUARY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.	CHARLES ALFRED LEE, Esq.
The Hon. JAMES HOSKINS.	JOHN LIONEL FEGAN, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	THOMAS HENRY HASSALL, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	GEORGE BLACK, Esq.
The Hon. DANIEL O'CONNOR.	FRANCIS AUGUSTUS WRIGHT, Esq.
HENRY CLARKE, Esq.	FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Koorawatha to Grenfell.

George Henry Greene, Esq., M.P., sworn, and examined:—

- G. H. Greene, Esq., M.P.
3 Feb., 1898.
581. *Mr. Fegan.*] Have you any statement to make? I have no written statement.
582. You gave evidence before the Committee which visited Grenfell some time ago in connection with the Euabalong railway as to the necessity of a line to Grenfell? Yes; on the first occasion I gave evidence on the 7th September, and also on the 21st October, 1897. I desire my evidence on those occasions to be incorporated with my evidence in connection with this matter, as printed and published with the proceedings of the Committee in their inquiry respecting the proposed Railway from Condobolin to Euabalong. It is as follows:—

TUESDAY, 7 SEPTEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.	CHARLES ALFRED LEE, Esq.
The Hon. JAMES HOSKINS.	JOHN LIONEL FEGAN, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	THOMAS HENRY HASSALL, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	GEORGE BLACK, Esq.
The Hon. DANIEL O'CONNOR.	FRANCIS AUGUSTUS WRIGHT, Esq.
HENRY CLARKE, Esq.	FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Condobolin to Euabalong.

George Henry Greene, Esq., M.P., sworn, and examined:—

568. *Chairman.*] You are the Representative of Grenfell in the Legislative Assembly? I am.
569. *Mr. Clarke.*] Have you any statement to make? I have no statement in writing, but I should be very happy to answer any question which may be put to me.
570. You do not wish to make any statement of your views except in answer to questions? I am hardly prepared to make a statement until I know the exact point which has to be illustrated. At present I really do not know what is before the Committee.
571. It is the consideration of the proposed line of Railway from Condobolin to Euabalong, as marked on the plan? Yes, I know the locality.
572. You have been long resident in that neighbourhood? Yes; for nearly twenty years.
573. Have you a good knowledge of the country? Yes.
574. What is your opinion of the proposal to carry that railway from Condobolin to Euabalong? I am decidedly unfavourable to the carrying of that line from Condobolin to Euabalong, because I think there is a very much better line which is being surveyed now which would answer all possible purposes better than the prolongation of the line from Condobolin to Euabalong, and which would open up an altogether fresh field of rich agricultural land, and would be the easiest and shortest way of reaching Hillston, which I conceive to be about the most westerly point at which cultivation could be profitably carried on.
575. Would you describe to the Committee the route which you approve of? The route which I approve of is that starting from the Harden and Blayney line, leaving at Koorawatha, and proceeding thence westerly to Grenfell, from Grenfell on to Wyalong, and from Wyalong to Hillston.
576. That line would not touch Temora, would it? No.
577. Is the country to which you refer thickly settled? A portion of it is thickly settled, and on the rest the population is increasing very rapidly.
578. You say the line should commence at Koorawatha? Yes.
579. What would be your next section? You wish me to describe the line from Koorawatha to Grenfell.
580. Yes? It passes through what I consider the best wheat-growing country in New South Wales, or what is equal to the best. The whole way from Koorawatha to Grenfell the country has been making most enormous strides in the way of acquiring a larger population, and an enormous extent of improvement in the way of clearing for cultivation. Where there were only, we will say, ten men employed five years ago, there is work now found on properties which are being transformed into huge farms for at least 100 men. The work has been increased, I say without fear of contradiction, over tenfold, and the production has increased at an even greater ratio.
581. Have you any statistics? I can only give the statistics of three properties which are almost adjoining. The others would be so very numerous and in such small areas that it would take time to compile the statistics in respect to them, but those statistics can be very easily furnished.
582. You might furnish the Committee with those statistics at a future time? I should be happy to do that. I believe that they are at this moment in readiness, but they are not in my possession.
583. Are those farms worked on shares, or how? On the large properties they are nearly all worked on the shares system. The owner of the property clears the land thoroughly, provides the seed, does what fencing is necessary, assists the farmer pecuniarily in many ways, and in getting machinery, and then the produce is equally divided in the field.

584. *Mr. Hoskins.*] Where do they sell the wheat? It has been nearly all sold locally, at Young, Bathurst, and Goulburn, G. H. Greene, Esq., M.P., but chiefly in Young.
585. *Mr. Clarke.*] The farmers have to cart the wheat a considerable distance to the railway station? Yes; that is the great difficulty we are labouring under. We can only cultivate within a certain distance of the railway, otherwise the waggon carriage kills the profit. 3 Feb., 1898.
586. If there were railway communication to any point near the land, is it likely that in the course of time that land would be cut up into smaller farms and sold to settlers? It is certain that it would be so—in fact, I should be prepared myself to part with a large amount, more than half of my holding, to the men who are at present cultivating it.
587. Would that be the case with other properties which are now under the share system? I have not the least doubt that that is the course which would be adopted.
588. Then the land if sold in that way would conduce to larger settlement and increase the population? Certainly.
589. The great drawback is want of communication by railway? Yes; that limits and is the only limit to the production of wheat and other cereals in that district.
590. Is the rainfall sufficient in ordinary seasons for carrying on farming? I think it is quite so. Our average rainfall is about 28 inches—that is taken from observations extending over from twenty-one to twenty-five years.
591. I presume that there are times when, as in other parts of the colonies, there is dry weather in that district, and a failure of the crops? Yes, we have had droughts; but we certainly suffer much less than they do further out west and north.
592. Would there be any other description of produce, such as wool, that would come to the railway as you have described there? A very large amount of traffic would be given to the railway, chiefly in fat stock and crossbred lambs. I myself sold every crossbred lamb I had last year, and sent them to Sydney with very good results. I am prepared to state that there is scarcely an assignable limit to the work that I could carry on profitably on my own estate, if we had railway communication close enough. On different occasions statements have been made to Ministers with regard to what probably would be done in the district in the way of enlarging farming operations, improvements, and clearing, and I have now to say that those promises have not only been fulfilled, but a great deal more has been done in that direction than even those who made the promises ever contemplated, and that a greater impetus was given to this work by the Minister for Works last year, at Grenfell, when he promised to submit the Koorawatha-Grenfell line to Parliament. Thousands of acres have been cleared since.
593. But the Minister has not done so up to the present? The trial survey is not complete, but on the faith of that promise we are working, and hundreds of men can be seen now at work in all the operations attendant upon clearing. Of course farming is practically all over for this season, and the crops are all in, but there is a very large amount of clearing being done in every place which is within reach of the railway.
594. Do you know the nature of the country from Condobolin to Euabalong, both north and south of the proposed line? I know it in the way in which people used to know it before they looked so closely into the value of the land for agricultural purposes, and, to my mind, it is in every respect inferior, both as regards rainfall and being subject to severe periodical droughts, when nearly all the stock are lost. I can see nothing to warrant the construction of a line from Condobolin to Euabalong.
595. The chief articles to be shipped there would be wool? Yes, and, I should think, very little else.
596. The railway will soon be completed to Condobolin, and if there is any land fit for agricultural purposes in that district, would not the produce go to Condobolin? Yes, within any reasonable distance which it would pay the farmers to cart. Condobolin terminus would suit them fairly well. But I think that when you get 10 or 12 miles beyond Condobolin the rest of the country, with the exception of small frontages, would be very poor land for cultivation. I do not think that farmers could make a living out of it.
597. The Railway Commissioners say there would be a loss on the line of something like £3,800 a year;—do you think there would be any probability of that loss being reduced if the extension were carried out? I do not think it would be remunerative or pay working expenses for a large number of years.
598. Then the only justification for making this line would be to take it towards Broken Hill? Yes; that is the only object which I can see—viz., going out west.
599. You are of opinion that the proposed line would not pay? I am sure it would not.
600. And that it would not be as suitable for the general public as the line which you have sketched out in your evidence? I think not. I think that line would pass through infinitely better agricultural land.
601. *Mr. Lee.*] Would you be good enough to tell us about the locality of the suitable land for wheat-growing, starting (say) from Koorawatha, on the track that you have indicated? The whole of that land is good, and it could be seen by anyone who takes the trouble to ride over the route.
602. You are of opinion that the greater part of it is suitable for wheat-growing? Ninety-nine one-hundredths of it is. There is none of it unsuitable, except, possibly, some small stony spurs.
603. Is there any Crown land there? I do not think there is any Crown land between Koorawatha and Grenfell, except, possibly, some small reserves. Of late years all the Crown land has been alienated to small holders who are on their land, and who are prepared to clear it and go in for farming as soon as a railway is brought within such a distance that they can convey their produce to it.
604. What is the mileage from Koorawatha to Grenfell? I think it is about 34 miles by the line as surveyed.
605. What are the prospects of agriculture round about Grenfell? Immediately about Grenfell the country is a little bit rugged, but on the eastern side the agricultural country is sufficiently close to Grenfell on the route between Koorawatha and Grenfell.
606. Will you describe the country towards Wyalong? The line leaving Grenfell would pass over one barren spur, and that is the only barren place that it would pass over, and having passed that, which can be negotiated at a grade of 1 in 75, all the rest of the land to the Bland plains is held by farmers, a well-to-do class of men who are living on their own land. The whole of the land on the north side of the Weddin Mountain is suitable for cultivation.
607. Do farmers from Bland Creek cultivate wheat? The Bland plains I do not consider would be suitable for cultivation, but they are amongst our richest pastoral lands, and interspersed with it are considerable areas of timber land which are fit for cultivation. You can lay down, as a rule, that timber land is fit for cultivation.
608. As you approach Wyalong you get into the mallee country? Yes. I have seen mallee land which I consider an extremely superior class. I had considerable experience of the mallee country in Victoria, and the large area that Mr. Lascelles has been cultivating, but I have not seen any mallee land there as rich as this mallee on the east of Wyalong.
609. Could it be brought under cultivation? Without a shadow of a doubt.
610. Profitably? Yes, because there is a large local population there.
611. Are the capabilities of the soil such that it can be used for wheat-growing? Not all of it. There is some mallee country which is very poor.
612. I want to find out the limits of the wheat-growing country there;—could you give it from there to Hillston, showing where you get out of the wheat-growing country? I think we might look upon the whole of the country as far as Hillston, which is the limit in a westerly direction, as wheat-growing country—that is, where wheat can be grown with tolerable certainty.
613. I suppose the bulk would be produced somewhere between Wyalong and Koorawatha? Yes.
614. At present I suppose the wheat grown in the neighbourhood of Grenfell has to be carted to Young? They have a mill at Grenfell.
615. That would be only for local requirements. If all that land were brought under cultivation it would become a necessity to export a large quantity of wheat? Not the least doubt of it.
616. Therefore, the consuming power would not be in comparison with the producing power of the district? Oh no, we should soon outstrip local consumption.
617. Can they send their wheat by dray from Grenfell to the nearest railway and dispose of it at a price that will leave them a reasonable profit? Hardly in ordinary seasons.
618. What would be the carriage from Grenfell to the Western railway? It would have to go to Koorawatha or to Cowra, a distance of 34 or 35 miles.
619. What would be the rate per ton or per bushel? I think it would be about 4½d or 5d. a bushel.
620. That would be equal to about 16s. 8d. a ton? That is a very low rate for carriage.
621. If grain can be carried in other parts of the country 26 miles for 2s. 6d. per ton, and if this line were made by way of Grenfell and for 34 miles 5s. a ton were charged, would that act as an inducement to the increase of agriculture? Yes, if it were reduced as you say. 622.

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622. If there were a railway and the carriage from Grenfell was 5s. a ton, would not that be considered a very low and satisfactory rate? I think it would be very satisfactory.
623. Would it admit of wheat being grown in the district and sent away by that means? Yes, no doubt.
624. At present you are paying 16s. 8d a ton? Yes, it would make the difference between the practical abandonment of agriculture and an enormous output.
625. What other portion of that district is largely used or could be largely used for wheat-growing? Nearly the whole of the country that does not lie so far north and south of the line as to make the carriage too heavy. The railway would cause a large cultivation on each side of the line for a very considerable distance.
626. Is the land of such a character that it will admit of large areas being cultivated? Yes, unquestionably.
627. It is not too heavily timbered? We do not use any land for cultivation except the timbered land. We soon clear it. It is country that could be cleared cheaply.
- 627½. If the railway were taken across from the point you mention, towards Hillston, do you think it would capture a certain proportion of the wool traffic which it is estimated would go by the Euabalong line? It would take it nearly all. It would capture, I imagine, the whole of the trade which the extension to Euabalong would carry.
628. In that respect you think it would have precisely the same effect? I think it would serve the purpose of giving access from the southern districts to the market, quite as well as, or better than, the extension to Euabalong.
629. One of these routes is on one side of the river and the other on the other? They are both on the river. Of course the produce would go to the nearest station. If the extension went from Wyalong to Hillston the produce would go by Hillston. That nearer Condobolin would of course go to Condobolin if there were no railway at all.
630. Briefly summarised, your argument is that if a line were made from Condobolin to Euabalong it will have to be dependent entirely on wool traffic from that district and goods going to that district? Yes.
631. But if it were taken from Koorawatha via Grenfell and Wyalong to Hillston it would open up a very large wheat-growing country, a country which is already producing large quantities, and which can be made capable of growing still larger quantities, and it would obtain the wool from the western country quite as well as the Euabalong line? Yes, that is exactly my argument.
632. Therefore you argue that in the interests of the country, a line of that character would serve a far better purpose although longer than the proposed line from Condobolin to Euabalong? I have no doubt whatever of that.
633. I suppose you hold that whether the Euabalong extension is made or not, sooner or later there will have to be an extension to Grenfell and that country? Certainly. I do not think the claims of that district could be resisted.
634. The people are there and the produce is there, and those are the attractions for a railway? Yes, our work is to be seen.
635. Therefore you say that that is the proper way to take the line, and that it would open up a large area of country which is waiting to be served? Yes.
636. *Mr. Wright.* Do I understand you to say that you are familiar with the Lachlan country? I was some years ago; I have not been there for some years.
637. When you travelled through that country I presume that you travelled with your eyes open? Yes.
638. Are you aware that it is said to be very rich all the way from Forbes to Euabalong? For about 10 miles down the river from Condobolin there is some good land on the frontage, but I should not look upon it as an agricultural district like the country between Wyalong and Hillston.
639. Is it not all red soil back from the river? There is a great deal of plain country that dries up very much, and some forest. But I do not look upon it as the same class of country for agriculture as the country further south.
640. By reason of its less rainfall? Less rainfall and the nature of the soil. Things seem to burn up and wither away there in a way in which they do not do in the forest country.
641. Do you know the south side of the river? Yes, fairly well.
642. Have you crossed the country from Condobolin to Lake Cudgellico? I have not been there for ten or twelve years.
643. What class of country is that? There is some fine country about Lake Cudgellico, but I understand that of late years it has become overgrown with fine scrub.
644. Is there not some good land about Bygallorie? There is some very fine land there.
645. All that country from the Dundoo Ranges is fairly good country? Yes, there is some good country there.
646. That is where the line would cross from Wyalong, is it not? It is already surveyed.
647. The route is through Wyalong, Bygallorie, and the Dundoo Hills? Yes, so I understand.
648. What is the distance by road from Cowra to Grenfell, and from Young to Grenfell? From Cowra to Grenfell is about 35 miles. I think the distance from Young to Grenfell is about 32 miles.
649. You say it is 34 miles from Koorawatha to Grenfell? Yes, by the line as at present surveyed.
650. If you look at the map you will see that Grenfell, Cowra, and Young form three points of a triangle? Yes.
651. It must be less than 34 miles to Koorawatha? Yes. The railway line has been made to accommodate itself to the levels. If a railway line were constructed from Cowra to Grenfell it would be much longer than the mark on the map indicates.
652. Suppose there is a railway to be made through Grenfell, what amount of mountainous country would it have to go through? Scarcely any to speak of.
653. Would there be 5 or 6 miles of it? I do not think so. But that is a matter about which absolute evidence can be given by the surveyor.
654. Does that go through the Eualdrie run? No; that is to the west of the line several miles west or south-west of Grenfell.
655. Where does the survey come down to the Bland country? Through Gibson's run, about 8 miles south of Marsden.
656. And it would cross at Marsden? No. It crosses the Bland, considerably south of Marsden.
657. It crosses the Bland somewhere near Chisholm's property? I suppose it would be to the north of Chisholm's property and it would go partly through the Oakhurst property.
658. Do you consider the Bland country suitable for wheat? Not the plain country.
659. What width is the plain country? I can scarcely say. The plains are irregular in shape and the timber juts in in places in long points.
660. Would it be 20 miles across? No, nothing approaching to that; perhaps about 5 or 6 miles.
661. How far is it from the Bland to the Weddin Mountains? I think it would be nearly 20 miles.
662. And about half that country is plain country is it not? No, not half.
663. Going west from the Bland what is the country immediately round Wyalong? It is chiefly mallee.
664. You are aware that there is a considerable extent of stone ridges in the neighbourhood of Wyalong? There is no doubt that about Wyalong there is some very poor, barren country.
665. About Hiawatha is very poor country? There is a great deal of good agricultural land when it is cleared of the scrub and timber.
666. After you leave Wollongough you have practically good land all the way to the lake and from the lake to Hillston? Yes, I think so.
667. Looking at this line from a productive point of view you are of opinion that a large area of country and a better area would be served by connecting Koorawatha and Hillston than by any other route taking Hillston as the objective point? Yes.
668. You think the country should be traversed between the Lachlan and the Murrumbidgee in the direction which you have indicated to serve a larger area of country and better country than on any other projected route? Yes.
669. Do you know the country from Temora to Wyalong? Yes.
670. A line along there would serve a good stretch of country? Yes; there is some very fair country there.
671. Picking up your route at Wyalong and connecting it at Temora instead of going through to Grenfell? Yes.
672. But that would have the objection that the land round Grenfell would be still isolated? Yes.
673. Do you think that Koorawatha is the best point of departure? I think so. It is the only possible point, from an engineering point of view, that can be got between Young and Cowra.
674. What difficulty is there about running a railway from Cowra to Grenfell? There is the Broula Range, which, at the lowest point, is about 800 feet high.
675. You think that Koorawatha is the best point of departure inasmuch as it is nearly the most direct route, and has the easiest grades? Unquestionably.
676. But the quality of the country is pretty much the same? The country about Koorawatha is unquestionably the best between Young and Cowra.
- 677.

677. *Mr. Hassall.*] With regard to the country lying west from Koorawatha, *via* Grenfell and Wyalong to Hillston, how is it watered? The water in the neighbourhood of Koorawatha is very good. There are some natural springs between there and Grenfell, but the country is naturally very poorly watered; but it is now practically secured by a great number of tanks and dams. Grenfell has its own supply, which is just fairly good.
678. Where does that supply come from? Wells and springs which do not run over the ground, but are easily tapped. At Bogolong, 6 miles out of Grenfell, there is a permanently running creek, but only very small, rising from a spring. From that to the Bland there are some small creeks which appear to answer all that is required, but there is no large stream of any kind.
679. Is the Bland Creek permanent? It is permanent in places. There are some waterholes close to Lake Cowal never, I believe, known to fail.
680. From Wyalong to Hillston there would only be an artificial water supply? I think that is all; it is a dry country.
681. The range shown on the map between Koorawatha and Grenfell;—is there any difficulty in getting over that? It has been got over. The line is surveyed for a distance considerably beyond Grenfell, and the steepest grade is only 1 in 75.
682. *Mr. Roberts.*] Do you reside in the neighbourhood of Grenfell? Yes; at Landra.
683. Would that be on the road to Young? No; it is about 8 miles east of the direct road from Grenfell to Young.
684. Have you any land under cultivation? Yes.
685. How many acres? About 12,000 acres under cultivation this year; only about 9,300 under wheat, the rest is under lucerne.
686. What is the extent of your property altogether? About 31,000 acres.
687. Is that all freehold? It can all be made freehold. About half of it is freehold, and the rest is conditional purchase and conditional lease lands.
688. Have the returns from the land under cultivation realised your expectations? Quite; if we had had rain early enough this season I could have disposed of 13,000 acres on the share system.
689. Is that system largely in operation in the Grenfell district? Yes; amongst those who have large areas.
690. And has it worked with advantage to both landowners and agriculturists? Yes, it has given very great satisfaction; but I may mention that the only large holdings in that neighbourhood are Worrangong (*Mr. Suttor*), Landra (*my own*), and Brundah (*belonging to Mr. Wood*). I should also mention that we are still going on with clearing, and on those three properties I think there are now about 33,000 acres cleared fit for the plough.
691. You think that if Grenfell had the advantage of railway communication a great impetus would be given to farming? A very great impetus; even the idea of a strong probability of our getting the line has put increased zest into the work which is going on now.
692. I should like your opinion on the three different routes for tapping Grenfell; according to the map which you see before you Grenfell could be reached by the construction of a line from Young, by a line from Koorawatha, or by a line from Cowra;—which in the interests of the country would you recommend? Unquestionably Koorawatha; the route from Cowra is simply impossible.
693. For what reason? On account of the range of hills and because the distance would be very much greater than by Koorawatha. The route was inspected by *Mr. Jamieson*, who was sent up by the Works Department, and it was at once abandoned, the cost being absolutely prohibitive.
694. What would be the grade on that line? I do not think the Department would sanction a grade steeper than 1 in 75, but it would have involved going a distance of some miles round to get it. There is a range which has to be crossed and, where the gap is, the road is 800 feet high.
695. The mountainous character of the country renders it unsuitable? Yes; and besides that the land north of the hills shown on the map is barren country, while on the southern side it is all good. From Young to Grenfell I do not think there are any engineering difficulties.
696. What would be the advantages of a route from Koorawatha to Grenfell, as against one from Young to Grenfell? It is supposed that the country is better on the Koorawatha line. It gives the best approach to the Southern and Western railways, and makes a better line than going to Grenfell and then turning almost at right angles to Wyalong, and it would serve more country.
697. And the distance is shorter from Koorawatha to Grenfell than from Young to Grenfell? It is by road, but I do not know how it would be by the line because it must follow the contour of the country.
698. Is the character of the country similar in each case? Fairly similar. The land about Koorawatha is superior to the land about Young. The land about Young, although pastoral, is not fit for cultivation on a large scale, and the land all the way from Koorawatha to Grenfell is very good except in some isolated spots.
699. Can you tell us anything as to the stability of Wyalong as a settled population? I have every reason to believe that the population will increase. I know men who have erected very large works there and spent a great many thousands, and from what they show me, and from the opinion I hold of them, I believe there is every promise of permanency. And so far as I can see, each year the prospects from deeper sinking have become more indicative of permanency.
700. Has the population shown any increase during the last two years? I do not think so. In new rushes there is always a nomadic class that come at first and soon go away, but when they have left, as in the case of Wyalong, the population may be looked upon as permanent.
701. Would it be a fair thing to say that it has been stationary during the last eighteen months? Yes, I think so. The population is about 5,000 now.
702. With a view of reaching Hillston would you recommend a line touching at Cudgellico, or could a line with advantage, be taken direct from Wyalong to Hillston? I could not give an opinion on that, as it is some years since I went over the country; but I should very much like to see Cudgellico brought within the sphere of railway usefulness because there is splendid land there.
703. Have you heard that the land towards Cudgellico, or I might say Hillston, is better country than that from Barmedman to Hillston? I could not say. I do not know the line from Barmedman to Hillston. I have been all over that country electioneering, but never noticed any particular route laid down for the railway.
704. From what you know of Cudgellico, you would like it to have the advantage of railway communication? I should.
705. Is the land fairly fertile about there? There is some magnificent agricultural land about Lake Cudgellico.
706. Then it would be very good from Lake Cudgellico to Hillston? I do not know so much about that piece of country.
707. Then in the interests of the country you think the line over which I ventured to take you would be the best way of reaching Hillston. I am perfectly certain of it, and it would serve a greater portion of the country, a larger population, and induce more settlement than any other line that could be made.
708. You are altogether opposed to the extension of the line going westward from Condobolin? I am.
709. *Mr. Hoskins.*] Would not a railway constructed from Koorawatha to Grenfell cost more than the proposed line from Condobolin to Euabalong? I do not know; I have no doubt that it would be a cheap line from Condobolin to Euabalong, but that is a matter to be decided by expert evidence.
710. Is nearly all the land between Koorawatha and Grenfell alienated from the Crown? Yes.
711. Are you aware that the land that would be affected by the proposed railway from Condobolin to Euabalong is Crown land and that they would have to pay nothing for it? I do not think they would have to pay anything for the land from Koorawatha to Grenfell.
712. Are you of opinion, from your knowledge of the people who are very anxious to have this railway constructed, that they would be prepared to give sufficient land to enable the Government to take the railway from Koorawatha? Yes, I have promised my land.
713. I know you have, but what about your neighbours? Some of them have thought that they might be given land from unused and unnecessary roads to make up for the land taken for the railway; but I am certain that if the choice were given to them whether the railway should be made and they should give the land, or they should give no land and have no railway, they would willingly give the land to get the railway.
714. I suppose you know that people petition to have railways made for the purpose of getting paid twice as much for their land by the Government as other people would pay them? I think I have got my constituents well in hand on that score. I knocked that out of their heads. I have always scouted that from the beginning.
715. I suppose you know that the policy of the Government, and the opinion of Parliament and the people is in favour of constructing light lines of railway? Yes.
716. The proposed Railway from Condobolin to Euabalong, you know would be a light line? Yes

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Esq., M.P.

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- G. H. Greene, Esq., M.P. 717. Do you think that a light line, costing not more than £2,500 a mile, could be constructed from Koorawatha to Grenfell? Yes. I am told that there will be no cuttings worth mentioning, and that there is plenty of timber and ballast in the neighbourhood.
- 3 Feb, 1898. 718. We have before us the propriety of constructing a Railway from Condobolin to Euabalong, but now you have brought in another matter? I am sure the line which I recommend could be constructed at a very cheap rate on account of the nature of the ground, the supply of timber, and the ease with which the ballast could be got.
719. Are the majority of the farming population between Koorawatha and Grenfell persons who are cultivating on shares? Yes; but there are a large number of farmers irrespective of those men.
720. Is it not the intention of the large landowners to let their land out on the share system to get it cleared by cultivation, with the view of ultimately turning it into grazing land? They will make use of the land in the ways that pays them best. If there is a demand for the land they will sell it, or a large portion of it.
721. Does it pay better to let the land on shares, in the way you have described, than to graze stock on it? It pays very much better to let it on shares.
722. I suppose you are aware that the selectors are continually complaining that the cultivation of wheat does not pay;—will it pay the farmers and landowners to sell wheat at 3s. a bushel? Yes. The best farmers that I have are men who own land adjoining the land that they have taken from me on the half system. I can explain the apparent strangeness of that. No farming will pay under the old conditions. A man must work on up-to-date conditions and upon large areas. The selector who has got land that is timbered cannot devote the necessary capital to the clearing of that land, and he will come to me and take 200, 300, 400, or 500 acres, and with my assistance he will put that into cultivation. Selectors who clear 30 or 40 acres, working badly with bad implements, cannot make it pay, and they will die out. One man that I have is putting in 800 acres, and last year he paid me £700 off his indebtedness to me out of his crops. He has been working on the half system for four years, and is going on again.
723. Then the cultivation of wheat really does pay? It does with good workmen. But there are farmers under exactly similar conditions that I never could get to pay their store accounts, or to repay the advances which I made to them.
724. As a Member of the Legislature, do you think it would be better in the interests of the country to construct the railway from Koorawatha to Grenfell, instead of a railway from Condobolin to Euabalong? I have no doubt of it.

THURSDAY, 21 OCTOBER, 1897.

The Sectional Committee met at the Court-house, Grenfell, at 10 a.m.

Present—

THOMAS HENRY HASSALL, Esq. (CHAIRMAN.)

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

The Sectional Committee further considered the proposed Railway from Condobolin to Euabalong.

George Henry Greene, Esq., M.P., sworn, and examined:—

4282. *Chairman.*] You were examined on the 7th Septe^r last by the main Committee in reference to this proposal? Yes.
4283. Have you any additional evidence to give? I have evidence to show the extra amount of expenditure in wages and material and the extra results gained by working the share system as it is worked here, as contrasted with the working of properties under the old system.
4284. You were not in possession of particulars when you were last examined? No. Originally I was working the Iandra estate as a pastoral property. I then employed about five men looking after the stock, and since we have had the partial assistance of a railway—because we are a long way from it, the nearest point being the Monteagle siding 12 miles distant—the average number engaged in ploughing, that is during the past four or five years, has been 120.
4285. How long would you be employing that 120? From the end of March until the end of July. During the harvesting, which you may say extends over about two months, there are 160 able-bodied men employed, representing forty families. On the share system on Iandra, there are forty families supported, and the station-hands and employees, instead of being five in number as under the old system, are twenty. The contractors employ on the average all the year round—at times the number is greater—fifty able-bodied men. During the drawing of the wheat and the carting to the railway there were employed last year sixty men with fifty waggons, and I trucked to Sydney 6,500 sheep; up to that date I trucked only a very small number, because I was not in a position to fatten them. This year I expect to truck, in spite of the disastrous drought, about 7,000 fats to Sydney. The amount I paid for cartage of wheat last year—I have not taken into consideration wool, or any other produce—was £1,015, sending to the nearest station. This year I expect it will cost from £1,500 to £2,000. During this time I had to keep and feed about 600 head of foreign horses and cattle belonging to the carriers, which was an enormous tax.
4286. Without any compensation? Yes; that is an expense in excess of the £1,015. Great injury was also done to the tanks on account of the low condition of the water, and the large number of stock to be watered. This year I would at this moment give a contractor £1,500, and take my chance, to cart my wheat to the nearest station, but I do not expect to get it done for £1,500. The work done between 1892 and this present year—say, five years—in clearing fit for the plough, amounts to the extent of 3,000 acres per annum. The amount of tonnage sent by me to the train, and upon which I paid freight for wheat alone, not counting anything brought up from Sydney, machinery or anything else, was between 2,500 and 2,600 tons; that was for train alone, irrespective of road-carriage, and the estimated value of the machinery and harness used in farming is £12,000, most of which, if I have not exactly supplied it myself, I have become security for; otherwise the men could not in many cases have purchased. I estimate that there are 500 farm horses at £15 a head, or £6,000. As showing the terrible loss we are put to in the face of this enormous expenditure, in not being able to utilise the straw (which, if we had a means of sending it away, would be cut with reapers and binders, and the wheat having been thrashed, would be sent to Sydney), I may mention that we lost on that item alone £7,000—that would be the straw off 10,000 acres. Considering that some of my men who do cut with reapers and binders have sold their straw at as high a figure as £5 a ton, the £7,000 I have given is a low estimate. It would, of course, apply to an ordinary season and not to a season of drought. You will see that, in making my estimate. I have taken the straw at a low price. With regard to the pastoral aspect of the question, I may mention that I have proved beyond doubt now that land which has been cropped for four or five years is in a thorough condition for growing lucerne. I have spent hundreds of pounds in the purchase of lucerne seed, and have spent large sums in getting it put in. I have at this moment about 500 acres which has been recently sown with lucerne, and by the help of this system of utilising the ground after it has been cropped for some years, there is absolutely no waste period in the history of the ground. It is turned at once from a productive wheat paddock into an almost equally productive grazing paddock, with the results that, whereas two months ago stock were on the point of death, I have lambs now ready to go to Sydney—cross-bred lambs—which will average 45 lb.; they are being shorn to-day. Under these circumstances, I claim that no fear need ever be felt of the farming industry being abandoned, and the country being allowed to go back to its natural waste condition, as it has been conclusively proved that the ground can be utilised in the way I have suggested. The area of improvement I should put down at the very least, if a line should be constructed from Koorawatha to Wyalong, at 15 miles on each side. Practically, the improvement would extend much further than that; but putting it down at that short mileage distance from the train, people would be enabled to send wheat to different places. Probably out west would be our best market in a time of drought. I calculate that the areas improved by a railway running from Koorawatha to Wyalong, and extending 15 miles on each side, would be 1,440,000 acres; and I should say probably nine-tenths would be fit for cultivation in some form or other. I give these figures to show that the holders of land, when they start upon this work, must go on, there is no stopping; it simply amounts to this: that whereas there are hundreds of capable men in this country who have not the means to till their own land, when they are put in possession of land cleared for the plough, and when they are supported by capital, become, I think, the most thriving class of farmers in this district. Where men are given the very best land, and have to work it without capital, they can never overtake the deficiency in their banking account; they live from hand to mouth a life of oppressive toil; perhaps they get in a small area each year; but the area they can deal with is so small that they become disheartened; whereas with a large area a man under the share system has no responsibility excepting that of work. All his pecuniary arrangements are made for him on a much more satisfactory basis than he himself could arrange them with the bank. It is said that figures can be made to prove anything; the figures I give, and the statements I am making, are derived from the facts; the facts have not been made to suit the figures, but are there, and can be seen. There are numbers of men who can give you similar evidence

evidence to that I am now giving. My argument in brief is this: that the statements made by myself and others with reference to the probable outcome of railway communication, and the efforts that would be made in the district to prove it worthy of the assistance of a railway, have been amply guaranteed. The work is there to show for itself; it will be permanent, and it will continue to increase. It must be left to the intelligence of those who have heard the evidence, and who can see for themselves what has been done, to decide the matter. We have now given hostages to the country for the due performance of everything which we have said can be done. If the results all through the district were only one-tenth of what can be shown to-day, the volume of traffic by rail would be larger than anyone would care to say.

4287. You have no doubt that railway extension to Grenfell would very soon pay? I am perfectly certain it would.

4288. But you think that, if anything, a line from Koorawatha would be the better paying line? Yes; but I shall be perfectly satisfied, now that our claim has been investigated, with any line the Government would choose to adopt. With regard to a question which was asked in Sydney, if I thought that the share system would lead to closer settlement on account of the large shareholders selling their land, I said then I thought it would. I have now to state that, having spoken to friends of mine who are in the same position as myself, the universal feeling seems to be that the holdings some of us have are too large, and that we should be willing to sell some of the land. I myself have for a long time past been in treaty with some of my own men, who came to me without one farthing, and whom I hope to see in a position to buy their own land in the course of a very short time.

583. Have you anything to add to that evidence? Yes; I should like to run through the evidence of Mr. Watson and correct some of his statements. I find it stated in Mr. Watson's evidence on the 4th of last month that the railway reserve along the line known as the "white line" is still intact. Some of that, which was in my own property, has recently been surveyed for sale. Great stress is laid on the fact that in 1883 the Government were favourable to the "white line." I wish to draw attention to the fact that that is almost ancient history, long before the discovery of Wyalong.

584. In other words, since 1883 circumstances have altered? Yes; Wyalong at that time was never heard of, and wheat-growing has been carried on in Grenfell for some years, and that was never thought of before. The "white line" branches off from Young $3\frac{1}{2}$ miles from the town, and for several miles runs almost parallel with the existing line. The construction, therefore, of the first portion of the "white line" would be through country already served. Of necessity the "white line" would, if constructed, rob the existing line of a portion of the traffic which it now takes as far as Monteagle. Taking it for granted that the statistics furnished by Mr. Watson are correct, the benefit accruing to the railway system through the use of that part of the "white line" would be almost infinitesimal, the distance being so short and access being afforded to the producers by the Murrumburrah to Blayney line. Mr. Watson argues that the "white line" can be more cheaply constructed, but any opinion of a layman on the matter is useless in view of the fact that all the resources of the Works Department are at the command of the Committee. I claim that either of the lines—the "white line" or the Koorawatha to Grenfell line—must be viewed as the portion of a system. The construction of the "whiteline" to Grenfell would, in the opinion of its supporters, necessarily be carried on to Forbes and ultimately to Werris Creek. Should the construction take place from Grenfell to Forbes, it would inevitably rob the Harden to Blayney line to a great extent. As it is claimed that the line from Koorawatha to Wyalong would rob the Temora-Cootamundra line, I think the extra traffic given thereby to the Harden-Blayney line, which likewise is a non-paying line, would be a fair set-off. A statement has been made by the advocates of the "white line" that the projected line from Koorawatha to Grenfell would only pass through the estates of large owners. I wish to give that an absolute denial. It does pass through three moderate estates, but when it emerges from the Brundah holding it goes into Grenfell through as populated and well cultivated a district as is to be found anywhere on either of those lines.

585. *Chairman.*] What is the distance from Brundah to Grenfell? About 12 miles.

586. *Mr. Black.*] What are the names of the three largest holdings? Woorangong, Iandra, and Brundah. It is claimed also that the holdings on the Young to Grenfell line being smaller, it follows that the settlers there must continue to cultivate, otherwise they could not live, their holdings not being large enough to enable them to make anything by running sheep alone. The argument is deduced from this that in the large holdings all the land will cease to be cultivated in a short time, that the share system will break down, and that the country will lapse into its original condition, or be laid down with artificial grasses. I am greatly obliged to those gentlemen who have told the public how I propose to manage my land; but I can say for myself with certainty, and I think I can speak for the other land-holders, that we believe the failure of the share system to be practically impossible. It is also stated that those men working on the share system have not been successful. I have a very large experience of these matters, and I state that the men on the properties working on the share system have thriven in every way better than the same class of men would have done on their own holdings. I have letters from several men who have been indebted to me, begging me to give them land on halves, and these letters were from men having land of their own. I, and those of my friends working on this system, have more applications now for land than we can satisfy. Men who came to me five years ago without a farthing, are now almost in a position to buy their own holdings. I have been for some time making arrangements to cut up my land and sell it, and so have my friends adjoining me. The statement that the system is likely to break down, and that the men farming on shares are not a success, is simply the result of gross ignorance. Another argument in favour of the construction of a line from Koorawatha to Grenfell is this: I am informed by the storekeepers in Young that under the present rate of freights charged by railways it would be impossible for them to make use of the line from Young to Grenfell at all, should it be constructed; that under the present tariff it will be cheaper for them to get their goods by the Western line, and cart by horse and waggon teams. I have seen a calculation showing that certain classes of goods required to a large extent in the stores can be landed in Grenfell at 5s. a ton cheaper than if the ordinary rates be persevered with, and a line constructed from Young to Grenfell. I claim that there is no method by which Hillston can be so easily reached as by the extension from Grenfell to Wyalong. Considerable stress has been laid on the fact that it is a shorter line—that it is only 40 miles from Temora to Wyalong, whilst it is 57 miles from Grenfell to Wyalong. That I consider is no argument whatever as long as fresh and suitable country for agriculture is being tapped all the way, and with a very trifling exception it is good agricultural land, or can be made so all the way from Grenfell to Wyalong. It has been said that this land, held under the share system, will go back into its natural state or grasses; but I can inform the Committee that such a state of things is scarcely possible, unless the Committee believe that those who started this vast industry are extremely foolish and short-sighted. We shall work the land in our best interests. I have proved by experience that it will not suit me to keep my land for too many years under one particular crop. Although it has been stated that the land will run out for wheat-growing in five or six years, I know of land which has been cultivated fairly successfully for nearly twenty-six years, and has not run out. I know of other

- G. H. Greene, Esq., M.P.
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- land which gave a fair crop last season, although it had been cultivated nineteen times in twenty-two years. When the land wants a rest it may be beneficial to us to lay it down in artificial grasses, but only for a limited period. It has been stated in evidence that the small holders will improve their land, and prevent it being worked out by a system of rotation of crops. I would like to ask any gentleman interested in the matter to go to those places where these concerns are dealt with in a large way. You can get no fair system of averages by dealing with isolated or exceptional cases, and I state that to preserve the fertility of our land fully, we must, after cultivating it for a certain number of years under wheat, grow rape, cow-pea, lucerne, or other produce over which we can depasture large quantities of stock which recuperate the ground by manure. Then the land will, as sure as night follows day, be used again for growing wheat. It will be admitted by everyone who knows, that the farming on every one of these large properties is done in a much more economical way than the small properties can be worked. It is the only practically successful system with which I am acquainted, for this reason: that the man who has nothing but his own labour, can come to any one of us, get the machinery he requires on credit, and work it out. If he does not work it out we are never paid for it, so that we shall stand to lose. We see, however, that the money is properly expended,—that up-to-date machinery is used, and up-to-date methods observed, as well as all the conditions which are essential to good cultivation.
587. *Mr. Fegan.*] Have any of those who have made agreements with you thrown up their land since? No men have left me except those I was anxious to get rid of, because they were either dishonest, incapable, or unpleasant to work with.
588. The majority have worked the land successfully? Yes.
589. How many applications have you now for land from men who wish to work on the halves system? I could scarcely tell you. When I left the station I asked my manager whether there would be any difficulty about finding men to work the additional land which I have cleared and am still clearing, and he said that there were more applications than we could supply.
590. How many men have you on your estate on the halves system? Over thirty.
591. What is the average acreage? About 300 acres.
592. Have you cropped during the last bad season? Yes.
593. How many bushels did you get? About 12. If the season had kept good we should have got over 20 bushels per acre.
594. Has any land of yours gone back to grass after growing wheat? Some of the land which has been cultivated five years I am letting go back, with a view to putting in rape or cow-pea, or one of those kinds of fodder which recuperate the ground; and when it has been sufficiently rested it will go back under cultivation.
595. You think it proper to give the land a spell? Yes.
596. Have you made provision for that in your agreements? The agreements are yearly agreements.
597. Why are they yearly agreements? Because I found some of the men were not worth keeping; and whilst I was bound by an agreement for three years, and they could force me to keep up to my agreement, I could not force them to keep theirs. I had no control over a man who could carry all he had in the world on his back.
598. What is the nature of the agreements? I clear the land thoroughly, do whatever fencing is necessary, supply grass paddocks and water for the working stock, and then I find the seed. I also become, where they are not able to do it themselves, security for the payment of the agricultural implements they purchase. I keep them going, and find them with rations from the store. Then I act as agent for them as far as possible. They have come to the conclusion that I can transact their business better than they themselves, and it is a great saving of time for them. They have to harvest the crop, and we divide the produce equally. Where it is possible their wheat is sold with mine. It goes away in the same lump and I get the account sales of it. Then the produce is equally divided. Then they pay me whatever they are able to afford out of their earnings towards my account. The account is balanced and squared up, and they go on the next year.
599. And you superintend the operations during the year? As far as possible, with the view of making them do good work. The essence of co-operation in this matter is that men for their own sakes will work hard. When they will not I tell them that if they cannot do better work it will not pay either of us and they had better go.
600. Do you enforce living on the land? No; on the contrary. Most of these men have land of their own which has been worked out or been so badly worked that they cannot grow crops. When men have no homes of their own we make an arrangement outside of the agreements altogether.
601. Have any applications been made to you by some of the lessees on the halves system to buy their own holdings out? No definite proposals have been made yet, but they all know that I am working with a view of enabling them, not necessarily, to buy their holdings, but holdings of a similar character on the estate.
602. Can you tell us how many men have left you? I think I have got rid of seven or eight. A great deal has been made out of this point—that although this industry has led to an immense amount of employment in the neighbourhood of these three large estates, it is only a temporary one. It is only temporary in this respect, that they have other homes, but practically their working life is spent on the land. I may state that our clearing operations have begun again within the last few days, and I daresay within the last week or so forty or fifty fresh men have been put on to work in clearing. Under those circumstances I will ask the Committee not to believe any evidence to the effect that we are such fools as to spend this money with the object of doing nothing with the land. I may mention the case of a good farmer who came to me up to his eyes in debt to the Bank. He held another selection, and offered to give up the whole of it and all his stock if the Bank would give him a clearance and let him work on Iandra. The Bank would not do it. They wrote to me and I guaranteed his overdraft. He has now paid off the Bank and got his land clear or almost clear, and he is now carting wheat with one of the finest teams in the district. I do not think he owes anyone in the world the sum of 6d. He has taken on 200 acres of virgin land in addition to what he cultivated last year.
603. If this system is successful a greater number of selectors will be placed on those estates? No doubt.
604. The proposed railway will run through large holdings and very little Government property;—do you know whether the owners of the land will give what land is necessary for the construction of the line? I understand that all the land is likely to be given. There may be one or two small men who would make some

some little objection. I have been taunted with bribing the Government by offering my land for this line, but as a matter of fact I made the offer some nineteen years ago when Mr. Lackey was Secretary for Works. If we get no railway from Koorawatha we shall be in a most terrible dilemma as regards roads. I was ashamed to drive Mr. Deane over the road when he visited the district, for he was almost smothered in dust. On the "white line" there is a macadamised road nearly every yard of the way between Grenfell and Young.

G. H. Greene,
Esq., M.P.
8 Feb., 1898.

605. Have you ever tried cultivation and allowed it to go back again? Yes.

606. How many acres to the sheep were there when you first went there? When I first went there the whole of the run—36,000 acres—would not carry 6,000 sheep, but then the timber had not been killed. But when the ground has been cultivated and allowed to go back to pasture it is better for pasture than previously.

607. To what extent? Almost half as good again.

608. *Mr. Roberts.*] The line shows an estimated annual loss of £2,000 a year;—have you made any calculation as to the correctness of that estimate? We are only on the fringe of our work, and if the line is constructed the volume of traffic must increase enormously. I may say that the town of Young never moved in favour of the "white line" until they knew I was advocating the proposed line. In the neighbourhood of the "white line" and west from that no disposition has been shown to render the district worthy of the line. There is no work being done worth mentioning. There are small farms worked out, and men in a half-starving condition.

609. Is it not a fact that there is a larger population between Young and Grenfell than there is between Koorawatha and Grenfell? Yes; but practically there is not that difference inasmuch as five families, without having permanent residences on the land, practically spend their lives upon it. I do not think there are as many people working on the land between Young and Grenfell as there are on the three properties alone to which I have referred.

610. Are there not a number of settlers holding about 2,000 acres each between Young and Grenfell? I daresay.

611. It has been mentioned that there are five schools on the Young and Grenfell route? I do not know where they are. There is one close to Monteagle which the "white line" might claim. There is also one on land which I gave, and they might claim that, but nearly all of the scholars live on Iandra.

612. Is there good timber available to the west of Grenfell? Yes; the timber on the Weddin Mountains would be equally available for the Koorawatha as the Young line. In addition the ranges to the north of the Koorawatha line are nearly all iron-bark.

613. Would the fact of the line from Koorawatha to Grenfell being at right angles to the main line be the means of serving a larger area of country? Yes, because it would be tapping new country all the way.

614. Is the area described on the map as wheat country a fair estimate of the wheat country which would be served by the proposed line? Yes, I think it is a very fair description.

615. What about the area marked "wool"? I should have thought the wool area would have been much larger.

616. If the Koorawatha to Grenfell line were constructed, would you favour its continuation to Wyalong and thence to Hillston? Yes.

617. By way of Cudgellico? I do not know about that.

618. When did you first put your holding under wheat? About five years ago.

619. How many holdings are there between Koorawatha and Grenfell? I do not know. There are a number of small holdings, and the proposed line would be available for a considerable portion of the country served by the other line.

620. Is the production of wheat increasing yearly? Yes, enormously.

621. Would there be any land available for settlement if a railway were constructed between Koorawatha and Grenfell? I do not think there would be much.

622. Do you think the present owners of the land would be likely to lease or sell it to intending settlers at a reasonable rate? I think so.

623. What would be the price per acre? I could sell land now cleared for the plough at £3 10 per acre, and give good terms. On the Murray the same land would fetch £6 an acre.

624. Would there be a fair amount available at that rate? A very large amount.

625. What is the population of Grenfell and district? About 5,000.

626. Would the people from Grenfell and district get all their own stores from Sydney? They would if the line came *via* Koorawatha. If it came *via* Young they would cart from Cowra.

627. *Mr. Hoskins.*] Do you know what are the opinions of the people of Grenfell in regard to the matter? They are in favour of the line from Koorawatha.

FRIDAY, 4 FEBRUARY, 1898.

Present:—

THOMAS THOMSON EWING Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Koorawatha to Grenfell.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and further examined:—

H. Deane. 628. *Mr. Hassall.*] Since furnishing information in connection with the proposed line have you traversed the route? Yes. I have made myself personally acquainted with the district. I beg to hand in the following information in regard to the cost of a single line of railway from Koorawatha to Grenfell:—

26 October, 1897.

KOORAWATHA TO GRENFELL.

Estimated cost of a single line of railway 29 miles 60 chains in length, with 60-lb. rails. Ruling grade, 1 in 75. Sharpest curve, 10 chains radius.

Description.	Estimated Cost.			Average Cost per mile.
	£	s.	d.	
Earthworks	14,233	5	0	478
Timber bridges and small timber openings.....	6,109	14	0	205
Level crossings, cattle-stops, and fencing	3,951	0	0	133
Permanent-way materials	18,952	4	0	637
Freight	3,926	5	0	132
Platelaying at 1s. = £2,618	15,904	7	0	535
Ballasting one-quarter at 3s. 6d. = £2,290 15s.				
Sleepers at 3s. = £10,995 12s.	5,568	15	0	187
Station-works, including junction and sidings	6,295	0	0	212
Station-buildings, waiting-sheds, £525; passenger platform, £200; loading banks, £550; goods-sheds, £480; grain-sheds, £500; 5-ton cranes, £400; weighbridges, £550; station-master's houses, £400; trucking-yards, £740; engine-shed, £500; carriage-shed, £200; coal stage, £150; turn-tables, £1,100				
Water supplies	3,000	0	0	101
Gradient and mileage posts	446	5	0	15
Telegraph	446	5	0	15
Miscellaneous.....	500	0	0	17
Cost of works.....	£79,333	0	0	...
Engineering and contingencies, 12½ per cent., nearly	9,917	0	0	333
Total cost	£89,250	0	0	.....
Average cost per mile	£3,000	0	0	.....

In my evidence on the Condobolin to Euabalong line I gave a number of comparative distances, and estimated costs of lines which traverse the country between the Southern and the Condobolin line. There are one or two small corrections to make, because since that time the surveys in one or two cases have progressed; consequently we have accurate distances instead of estimated ones. I may mention that when I was at Grenfell I examined the town and the lines surveyed in and out of it, with a view to deciding whether the station site was the best which could be obtained or whether something better was possible. It struck me at the time that it would be possible to bring the station nearer into the town, but it was not until I got back from Sydney that I was enabled, by means of the levels that had been taken in connection with this and other surveys, to prove what I now state, namely, that a station site can be provided which will be within the township of Grenfell instead of 1½ mile away, as previously proposed. The improvement is effected by lowering the grade of the proposed terminal station site at Grenfell, and crossing the small valley or creek into the western side of the town of Grenfell, and joining there the survey which was made from Young to Grenfell. The continuation of the line beyond follows for a short distance the surveyed line from Grenfell to Forbes. It gets through some gaps in the range, and, after crossing, it turns off to the left and proceeds towards Wyalong. The total cost of the two lines, from Koorawatha to Grenfell and Grenfell to Wyalong, will probably be the same; but the cost of the line from Koorawatha to Grenfell will be added to, to the extent of £3,100. There will be an extension of the same of 1½ mile, which will cost that amount. I recommended strongly that the line should be extended in this way into the town of Grenfell. I have reported the matter to the Minister, and he has expressed himself as desirous of doing as much as possible to suit the residents of Grenfell.

629. What grade do you get in crossing the range to the west of Grenfell. 1 in 75.

630. If the recently-surveyed route were followed, it means that Bimbi would be left 8 miles to the south? Yes; it means that the more northerly route to Wyalong would have to be adopted, unless you turned back on the same line to get to Bimbi.

631. Is the survey to Wyalong completed? Yes.

632. So that you are able now to give the distance? Yes.

633. In your former statement the distance between Koorawatha and Grenfell is given at 29 miles; now you give it at 29 miles 60 chains, which would include the extension to the proposed terminus? No, it would

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would not. The line from Koorawatha to Grenfell, as shown in the report, is somewhat lengthened, and the line from Grenfell to Wyalong is shortened to the same extent. I will give you the distances. I am assuming that the two stations are 1 mile apart, although in reality it is close on $1\frac{1}{4}$ mile. Koorawatha and Grenfell I have taken as 30 miles—it really is 29 miles and 60 chains—that is to the station site originally proposed. If you take the line into the town, as I now recommend, it makes the distance 31 miles. Grenfell to Wyalong, as surveyed, from the previously proposed station, is 57 miles, but by the suggested alteration it is 56 miles.

634. Did you traverse any country beyond Grenfell? I went as far as the Caragabal station which is on the plains. I did not think it necessary to traverse the Bland country into Wyalong, as I have been at Wyalong before. I returned from Caragabal station *via* Bimbi into Young, and the day before leaving I went over the greater part of the Young to Grenfell survey, so as to be in a position to make a comparison between the two routes.

635. Were you far enough out on the Bland country to form an opinion as to whether there will be any difficulty in constructing a line across there which will carry all your traffic? There will be no difficulty whatever, excepting that care will have to be taken in crossing the Bland, so as to be safe from flood. The Bland, I understand, spreads out to the extent of several miles in very wet weather, but I do not think there will be any difficulty on that account. I do not think that, even providing for all the flooded waters of the Bland, the estimate will be exceeded.

636. Will you give your opinion as to the possibilities and probabilities of one route over the other? As regards the distance to be constructed they are almost exactly the same. As regards the cost of construction the Young line would be a little more, and that is due partly to earthworks and partly to culverts and bridges, and also, in a minor degree, to crossings and cattle-stops.

637. What will be the difference? The estimated difference is £177 per mile.

638. So that the Young to Grenfell line will be £3,177 per mile? Yes, and the total £94,357, as compared with £89,250. Of course if you add the £3,100 to the Koorawatha to Grenfell line you bring that up to £92,350, which is nearer to the Young to Grenfell estimate, so that I think the Committee may reckon that, as regards cost, they are practically the same.

639. In traversing the two routes, which one struck you as carrying the most population? I did not observe the country with the intention of making any comparison. Of course the character of the holdings may be said to be somewhat different. On the Koorawatha side you have stations of large size with farms let out on the halves principle. On the Young to Grenfell route you get the country not so much cultivated, but what there is is in smaller holdings.

640. The character of the country is practically the same? Yes, it is all very fine country.

641. Do you know what view the Commissioners hold with regard to the junction at Young or Koorawatha? I believe the view of the Commissioners is that the best junction is at Koorawatha. One strong reason in favour of that is that it taps country and serves agricultural areas which are already there, and it gives the option of taking the traffic either to the Western or Southern line, as most convenient to the carriers, that is to say, to the Railway Commissioners. In order that the Committee might be in a position to judge what is meant by taking goods by the Western line and by the Southern line, I have had a table prepared [*vide Appendix*] which will show that, although it might be expected that on the Western line the rise to be surmounted is very much greater than on the Southern line, it is not so in reality. The Southern line consists of such a series of rises and falls that the total rise on the line towards Sydney is not very much less than on the Western line. The total rise proceeding from Grenfell to Sydney *via* Young, Harden, and Goulburn, is 6,841 feet; the total rise from Grenfell by the Western line—that is *via* Koorawatha, Blayney, and Eskbank—is 7,598 feet, or a difference only of about 757 feet.

642. With the very probable growth of traffic from the interior it might be of some moment to the Commissioners to be able to command the two routes from the most accessible point? Very likely.

643. Naturally, if a line went from Young towards Grenfell, they must bring the traffic in on the Southern line? It would naturally go that way.

644. In the event of any large traffic growing up in the western country, it might result in the overcrowding of the Southern line, or make it inconvenient to work at times;—do you think it is an advantage to have a junction at that point, which will enable the Commissioners to command either the Southern or the Western line? Yes. If you want to get on to the Southern line, you would have to go 25 miles further round if you come to Koorawatha than if the junction were at Young.

645. Do you wish to express any opinion with regard to a line coming from Dubbo, Parkes, Forbes, and Grenfell to Young, that being a line which might, some day, knit together the railway system in that part of the Colony? Yes; it is clear that there will be a loss made if a person coming from the Southern line, on reaching Young has to turn and go a little north and east to Koorawatha, and then turn into Grenfell. There would be a loss of distance of 25 miles; but if there be an extension west to Wyalong, traffic coming down the Blayney line would have the advantage of some 31 miles, inasmuch as it would turn off at Koorawatha instead of going to Young. Therefore, the question resolves itself pretty much into one of one line compensating for the other. There is also this to be said, and it will be seen in the table which I am handing in, that the actual distance from Grenfell to Sydney, *via* Young and Harden, is 282 miles, and *via* Koorawatha and the Western line 266 miles. [*Vide Appendix.*]

646. Touching the question of traffic, the probability is that the bulk of the traffic will be the traffic from the western country to Sydney, as compared with the traffic which might eventuate on a line running across from Werris Creek to Dubbo or to Harden? Yes.

647. Therefore, any gain in the length of the line from Dubbo *via* Peak Hill, Parkes, Forbes, and Grenfell to Young, would not benefit so many people as the gain the other way, running direct from Grenfell to Koorawatha? No.

648. So that the advantage practically is in that direction? Yes; it seems so.

649. After inspecting the locality, you have arrived at the opinion that Koorawatha is the better point of departure for a line of railway towards Grenfell? I have not drawn any conclusions. I have stated the facts. I should like to say that I do not think any serious mistake would be made if either of them were adopted. But so far it would appear that the Government proposal is, on the whole, the most advantageous.

650. Practically, the cost and distance are about the same, and it is a matter for consideration as to which will be the better point of departure? Yes.

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651. Have you any opinion to offer as to the wisdom of an extension from Grenfell to Wyalong, or from Temora to Wyalong? I should say an extension from Grenfell to Wyalong would serve better country and would give better returns per mile for the distance traversed.

652. There is not much difference in the country to be traversed, as far as engineering difficulties are concerned? Not very much. I think that the Temora-Wyalong line was put down at £2,300 per mile, and the line from Grenfell to Wyalong at £2,500 per mile. As I say the estimate is not yet ready. It is not very long since the surveyors completed their work, but I think, if anything, the cost will turn out to be less than £2,500 per mile.*

653. The country from Grenfell out to the Bland is good agricultural country? Yes.

654. And the Bland country is practically a pastoral country? Yes; you get rather more than one-half the country in the agricultural area. Then you get on to the plains 33 or 34 miles out from Grenfell towards Wyalong.

655. It has been emphasised that the line from Grenfell to Wyalong will experience great difficulty in floods coming across the Bland;—you have taken that into consideration in your estimate? Yes. At the same time I shall be prepared to give the revised estimate to the Committee at a later date.

656. We can take £2,500 as a maximum? Yes.

657. *Mr. Roberts.*] Could a line from Cowra to Grenfell be as easily constructed as one from Koorawatha to Grenfell? No; you cannot easily construct a line from Cowra to Grenfell. There is a range which is very awkward. You pass the same range two miles out of Koorawatha, but the altitude there is low. From Cowra to Grenfell it would be difficult, if not impossible, to get the grade you want—at any rate it would involve considerable cost.

658. How many stations do you propose having between Koorawatha and Grenfell? I think there are four.

659. What is the cost of the proposed stations? I have them lumped together, including some cost at the junction of the terminal station—£6,295. That also includes two turn-tables at £1,100.

660. Does that include the station in the town of Grenfell? Yes. Of course they are all of an economical character. It has been the practice of the Department to erect economical stations for some time past, and as the Commissioners see the traffic increases they are in a better position to judge what improvements are necessary. They will be erected of wood.

661. Is there plenty of timber in the district for sleepers and other purposes connected with railway construction? There is pine in the district, and some of the ranges, within easy distances of the line, carry ironbark, but we should no doubt have to go some distance for the bridge timber. I have put down 3s. each for sleepers, which will allow for their coming some distance. The ironbark forests of the country are getting very much depleted, but still I think we can get out our sleepers for 3s. each.

662. And you would probably get them west of Grenfell? I think we shall have to get them where we can, but I do not think there will be any difficulty in getting them.

663. What are the sharpest curves on the proposed line? 10 chains.

664. The line, if continued to Wyalong, would be constructed at a lower price than the proposed line? Yes, because we get on to easier country after passing the little range to the west of Grenfell.

665. Do you know the country sufficiently well to draw comparisons between the country between Grenfell and Wyalong, and Wyalong and Temora,—I mean as to the revenue which might be derivable? Speaking generally, there is a much larger area of suitable country for agricultural and pastoral purposes between Grenfell and Wyalong. When you go from Temora to Wyalong you notice that the ridgy country is very much closer, and good land is much scarcer.

666. *Chairman.*] Would you turn with a sharp curve round from Grenfell to continue to Wyalong? There would be no difficulty about it; it would avoid a back shunt. You can come round.

667. Therefore, as far as the extension *via* Bimbi or the northern route is concerned it is immaterial; you could get out either way? Yes.

668. But the best get-away is to keep going north? Yes; it is shorter and the country is more taken up.

669. Do you think the line *via* Bimbi, or the northern line, is the better from an engineering point of view? It does not make much difference; they are both fairly easy.

William McIntyre, Chief Electoral Officer, Chief Secretary's Department, sworn, and further examined:—

W. McIntyre.
4 Feb., 1898.

670. *Mr. Roberts.*] You promised on a former occasion to give the Committee some information with regard to the population between Young and Grenfell? Yes; I have taken out the number of electors within 10 miles on each side of the proposed line from Koorawatha to Grenfell, and also on the route from Young to Grenfell. There is a small piece common to the two at the Grenfell end. On the Young to Grenfell route there are 1,759 electors, which would represent a population of about 7,000. On the Koorawatha to Grenfell route there are 717 electors, which would represent a population of 2,800. The principal part of that population is located close to Grenfell. At the Koorawatha end the population is very slight.

* NOTE (*on revision*):—The work of estimating has proceeded so far as to enable me to state that the cost will not exceed £2,300 per mile.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

Railway from Koorawatha to Grenfell.

APPENDIX.

A.

[To Evidence of H. Deane, Engineer-in-Chief for Railway Construction.]

GRENPELL TO SYDNEY VIA GREAT SOUTHERN AND GREAT WESTERN RAILWAYS.

Distances and Grades.

Grenfell to Sydney via Young and Harden.

Description	Distance. Miles.	Totals of rises against the load.	Ruling grade against the load.	Ruling grade with the load.	Remarks.
Grenfell to Young	} 282	392	1 in 75	1 in 75	* For 8 chains only. Next steepest grade 1 in 60.
Young to Harden.....		635	1 in 40	1 in 40	
Harden to Goulburn		} 5,814	1 in 40	1 in 40	
Goulburn to Sydney			1 in 40*	1 in 30	
Total	282	6,841	.....	.....
Grenfell to Sydney via Koorawatha and Blayney.					
Grenfell to Koorawatha ...	} 266	553	1 in 75	1 in 75	Several 8-chain curves on the Zigzag.
Koorawatha to Blayney ...		2,816	1 in 40	1 in 40	
Blayney to Eskbank		} 4,224	1 in 40	1 in 40	
Eskbank to Sydney			1 in 40	1 in 30	
Total.....	266	7,598	.....	.....

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

SECTIONAL COMMITTEE.

RAILWAY FROM KOORAWATHA TO GRENFELL.

REPORT.

THE Sectional Committee, consisting of Mr. T. T. Ewing, M.P., Hon. D. O'Connor, M.L.C., Mr. H. Clarke, M.P., and Mr. J. L. Fegan, M.P., appointed on Friday, 11th February, 1898, to inspect, take evidence, and report with reference to the proposed Railway from Koorawatha to Grenfell, have the honor to report to the Parliamentary Standing Committee on Public Works that they left Sydney by the 9 p.m. train on Friday, the 18th February, and arrived at Young at 8 a.m. on the following day. During the afternoon of the same day the Committee obtained such information as was obtainable at the Local Lands and Roads Offices, and subsequently visited the Co-operative Roller Flour-mills, the Meat Chilling and Freezing Works, and the Butter Factory.

On Monday, 21st February, the Committee left Young at 8.30 a.m., and arrived at Koorawatha at 10.30 a.m., and heard the evidence of all local witnesses. On Tuesday, 22nd February, the Committee, accompanied by Mr. Little, Engineer, Railway Construction Branch, Public Works Department, left Koorawatha by special conveyance, and inspected, as far as practicable, the route of the proposed railway to Grenfell. The Committee also visited Warrangong, Uppinham, Iandra, and Brundah, and drove through a large portion of the wheat-growing districts. The Committee took evidence at the Court-house, Grenfell, on Wednesday, 23rd February, and Thursday, 24th February. On Friday, 25th February, the Committee left Grenfell for Young, *via* Arramagong and Bulla Creek. Local witnesses were examined at the latter place. The Committee took evidence in the Court-house, Young, on Saturday, 26th February, and Monday, 28th February.

In the Report of the Railway Commissioners it is stated that, although there will probably be a loss of nearly £2,000 per annum on the proposed railway, the resources of the Grenfell district, aided by better means of communication, will, in all probability, soon make the line pay all reasonable charges. From a comparison of the statistics of a year ago with those now furnished, and also from their personal investigations, the Sectional Committee are of opinion that the anticipations of the Railway Department with regard to the transitoriness of the loss is correct. The area under cultivation is rapidly increasing, and it is reasonable to suppose that soon after the railway is completed there will be a sufficiency of traffic to render the line reproductive.

Even the opponents of the proposed line concede that Grenfell is entitled to railway communication. The real question at issue is the route by which that district should be approached.

Koorawatha, the junction of the proposed Grenfell line with the Blayney-Murrumburrah railway, as a trading centre need not be considered. The township consists of but a few buildings. The direction of the proposed line is practically at right angles to the existing railway. For a great part of the length the land is suitable for the growth of cereals, but here and there rough country obtrudes, which must be regarded as of very little value either for agricultural or pastoral purposes. Still this does not materially affect the statement that the district between Koorawatha and Grenfell may be regarded as a tract of country eminently suitable for

carrying a considerable population and for the production of a large quantity of wheat and wool. The line appears to have been well located. The rough country previously referred to is not continuous, and all the ranges can be approached by easy grades. The map which accompanies the report of the Sectional Committee shows that the line crosses several creeks, none of which should necessitate any extensive works. The termination of the line on the western side of Grenfell, as suggested by the Engineer-in-Chief, will be more satisfactory than the terminal station previously approved by him.

The evidence taken before the Sectional Committee shows that adjacent to the line there is a very considerable area of land at present under cultivation, and preparations are being made to further extend it. The nearest station towards Koorawatha is Warrangong, which, with an area of 21,000 acres, has 5,000 acres prepared for the plough. Iandra, having a total area of 30,000 acres, has 17,500 acres prepared for the plough. Brundah, with an area of 16,000 acres, has 9,000 acres prepared for the plough. These three stations furnish, in the opinion of some, a serious objection to the construction of the proposed line. Although these holdings are of considerable extent still the amount of labour employed upon them is very considerable, and those interested in the production of wheat thereon form a considerable population to whom reference will presently be made.

From Brundah to Grenfell the land is held in smaller areas, and on this portion of the proposed line the charge that it will be constructed for the benefit of the large holders cannot be maintained. The statement referred to has been so frequently brought under the notice of the Committee that a reference to the positions of the larger estates engaged at present in farming on the share system is necessary.

Under the conditions which obtain in the district, whether wheat be grown by a large or a small holder the same amount of labour will be employed in its production. If the growing of cereals on a large estate impoverish the soil the same result must follow on smaller holdings. Since the amount of labour employed, and the question of impoverishment of the land apply fairly well in either case, *i.e.*, whether the land be farmed on large or small holdings, the question resolves itself into one of the ownership of the wheat. Under the share system a certain proportion of the heat, in accordance with agreement, is given to the landholder for the use of the land, for the expense of clearing, and for other incidental services.

Although it is certain that with a good price for wheat, and reasonable crops, the owner of the land under the share system will receive a very large return for his expenditure, still the popularity of the system, under present conditions, is proved by the extension of operations, for where carriage by team is not too far to the railway station the large holders have no trouble in obtaining tenants on the proposed terms. It no doubt is a fact that in bad seasons, or if wheat fell materially in price, there would require to be some alterations in the agreements under which the land is leased. The parties interested in the growth of wheat will no doubt be able to come to an agreement mutually satisfactory when a new state of things has to be faced. At present the tenant farmer is prepared to pay in kind to the extent, at times, of half the crop, and during last season he apparently prospered under these conditions. The Sectional Committee do not, by quoting evidence, desire to unduly extend the length of this report, but the statements on oath by share farmers will show many instances of the profitable results of the operations to them. It will not be seriously contended that because men are unable to obtain land of their own the State is under a less obligation to carry their produce than that of the freeholders. It is not material to the railways as a commercial concern by whom the produce is grown; the main question from a carrier's standpoint being the proper development of the country so that a sufficient amount of produce is available to render the line productive. The matter really resolves itself in principle into one of the respective value to the State of tenant farmer and freeholders. With regard to this question—especially in view of recent land legislation—the Sectional Committee believe no expression of opinion can be expected from them.

The obligation to the State to carry the produce of the soil is not determined by the question of tenure of the land, but it has been suggested that wheat-growing will be less permanent on a large estate than on a small holding. After full investigation it has not been proved to the Committee that there is any likelihood of wheat
farming

farming being a success on small areas and a failure on large holdings. If on a large estate the land be exhausted by wheat, such also must be the experience of smaller holdings. If, by laying down his land with lucerne, and feeding sheep upon it, a pastoralist obtains the largest return per acre from his land, such procedure would also give the best return on the smaller holdings. With regard to the permanent occupancy of land on shares there is certainly a greater probability of an alteration in the personnel of the tenants than of the freeholders; but, if wheat growing continue to be more profitable than the production of wool, there will be permanent agriculturists occupied on the land, although it may be under easier agreement; and if wool give a larger return per acre than wheat there will be the same tendency to revert to its production on a small estate as on a large one.

The line known locally as the "white line" from Grenfell to Young leaves the former town from the same station site as station No. 2 proposed by the Engineer-in-Chief. Right through to Young the country presents no important engineering difficulties. For the first 18 miles the engineering difficulties would appear to be even less than on the line from Koorawatha to Grenfell, but the Engineer-in-Chief explained that the creeks require rather heavier construction, and therefore his estimate of the total cost of the line will be some £12,000 greater than that from Koorawatha to Grenfell. Although as Young is approached the country becomes rather hilly, and at times broken and stony, still the whole area must be regarded, generally speaking, as suitable for the production of cereals and wool. From the Committee's investigations, which were, however, limited to the vicinity of the line in each instance, there appears to be less improvement on the "white line" than on the line from Koorawatha. But, although the population cannot be regarded along the "white line" as other than sparse, still there is no doubt from the evidence that there are more landholders between Grenfell and Young, than between Grenfell and Koorawatha. For the first dozen miles or so after the "white line" leaves the existing railway, all residents situated between these lines would be not more than 6 miles from one route or the other. This serious defect in the "white line" has already been emphasised before the full Committee. If fair access by road were given to the Blayney-Murrumburrah line—from such places as Bulla Creek and *via* Monteagle—these localities would be well served.

The cost of constructing a road capable of carrying the produce of the district *via* Brundah to Koorawatha is estimated by the local road officer to probably necessitate the expenditure of not less than £14,000.

Summarising the local merits of the two routes, it may be stated that the Koorawatha route leaves the present railway system almost at right angles, and the Young to Grenfell route at an acute angle, thus remaining for a greater length than is desirable within the influence of an existing railway. The land in both cases is suitable for pastoral or agricultural settlement. The cultivation on the Koorawatha to Grenfell route at present is greater than on the route from Young to Grenfell. The small holdings are greater on the route from Young to Grenfell than on the route from Koorawatha to Grenfell. The permanency of agriculture on either route is controlled by conditions already explained. The cost of construction will not differ materially.

It appears probable that arrangements can be made which will reduce to a minimum the cost of any resumption for railway purposes between Koorawatha and Grenfell, and although most of the land originally reserved on the route from Young has been alienated, possibly for two-thirds of the distance to Grenfell, by the "white line," the land can be obtained free for the purposes of railway construction.

It was contended by residents of the town of Young that they had been accustomed to trade over a large area of country, and since capital had been invested in the centre of the district it was unfair to curtail its trading limits unless there were some great national end to be served. It, therefore, became necessary to determine the present district over which Young trades, and make clear the loss of area which would probably be experienced by that town from the construction of a railway from Koorawatha to Grenfell. The existence of a line of railway from Young to Cowra on the east, and from Cootamundra to Temora on the south, makes it unnecessary to refer to any portion of that district immediately to the north-east or west of Young. The construction of the Koorawatha to Grenfell line cannot
materially

materially affect the trend of traffic in either of those directions. The description of these areas must be regarded as approximate, but they are sufficiently close for all practical purposes. Young at present trades about two-thirds of the way towards Grenfell, *i.e.*, as far as the range dividing the Tyagong and Burrangong Creeks. Some store goods are supplied beyond this line from both towns, but this boundary is sufficiently accurate. Wheat comes to Young from beyond that point. The mill at Grenfell is not sufficiently powerful to deal with any great amount of wheat, and there is no good road by which the railway can be reached from the country south from Grenfell except *viâ* Young. A very large proportion of the stores for Grenfell and district do not come *viâ* Young, but *viâ* Cowra, therefore Young cannot sustain a claim that Grenfell lies within its present trading area. The northern boundary of the trade limit of Young is from the junction of the Tyagong and Burrangong Creeks, following down the Burrangong Creek to Bimbi; thence north along the Bimbi-road until it strikes the Caragabal Creek; thence down that creek to Marsden—(from about here there will be a tendency to go to Forbes)—thence up the Bland Creek until the influence of the Temora and Stockinbingal railway connection is felt. If the railway be extended to Grenfell, the trading area of Grenfell will, in the opinion of the Committee, not go much further to the south than the range between the Tyagong and Burrangong Creeks previously referred to, and it will remain fairly well in the same position as far west as Bimbi, but, perhaps, passing a little south of that place, and extending westerly to Williams' Crossing; thence north beyond Marsden, and on to the north extending approximately half-way between Grenfell and Forbes.

This shows that the trading area of which Young will be deprived is bounded on the east by a line from Bimbi to the Caragabal Creek, west almost to Marsden, south along the Bland Creek to Williams' Crossing, and thence approximately east to Bimbi. Therefore the utmost that Young can lose from its present trading limits is an area of about 12 by 16 miles direct, of which the northern portion is at present uncertain. It will be understood that there are deliveries from Young, and trade to that place, at times, beyond the defined limits, but for general purposes the defined areas are sufficiently accurate. If the Koorawatha-Grenfell line be constructed it will pick up traffic almost into Koorawatha.

If the "white line" be constructed it will be of advantage to the country tinted blue to the west.

Generally speaking, the country developed by either line is equal in area. If the connection be *viâ* Young the trade of the whole tinted area will pass through that town; if Koorawatha be the starting point of the railway, the yellow and red areas will have a shorter and cheaper route to the metropolis and the seaboard. The advantages in the shortest connection to the west and south by the rival routes may be regarded as equalising each other.

The full Committee desired that the inquiry of the Sectional Committee should be limited to the question of a terminus for the time being at Grenfell, and a statement whether the trading area of Grenfell, if a line be constructed, is sufficient to make the line self-supporting should there never be any extension to the west. Therefore, it was not necessary to inquire into the question of the western traffic beyond those points from which it could reasonably be expected to come by team to a terminus at Grenfell.

In the construction of new lines it is, at times, justifiable to sacrifice direction or route to large vested interests such as were claimed to exist in Young. The wheat produced in the past can be obtained from a very small portion of the trading area which belongs to Young under any circumstances, and the produce transhipped at that place, if the development anticipated locally be realised, will rapidly increase and be infinitely greater than has been the experience of that town in the past. If in Young there were large mills capable of dealing with the produce of a great area of country, and if the substitution of a new trading area interfered with their operations and rendered the money expended in their construction a wasted quantity, the matter would have considerable weight with the Committee; but the co-operative mill in Young deals with a quantity of wheat which would be grown in an average season on 25,000 acres of land, therefore the milling plant in Young, being able only
to

to deal with wheat coming off an area between 6 and 7 miles square, represents a very small proportion indeed of the available country the produce of which must still come to that place, and there will be no abandonment of machinery consequent upon an extension from Koorawatha. But if a fair proportion of the wheat grown in the Young district be milled locally there must be an extension of mill power. If the wheat simply passes through the Young station this fact cannot have a very material effect upon the prosperity of the town.

The situation of Grenfell makes it certain that that town will trade with Sydney for all time, and, therefore, it requires the shortest route to the metropolis. The distance from Sydney, *viâ* Koorawatha to Grenfell, is $265\frac{3}{4}$ miles; *viâ* Young, it is $277\frac{3}{4}$ miles. The cost of railway carriage, *viâ* Koorawatha, is, therefore, less than *viâ* Young. The traffic from Grenfell should go east of Koorawatha, not south to Young, and the rates quoted by the Commissioners show that by this route the district of Grenfell will have the least costly land carriage. If the produce were sent *viâ* Young, it means that for all time the producers in the Grenfell district would be penalised to maintain Young as a trading centre. It may be contended that it might be cheaper to bring the goods by the Southern line. The Committee have always refrained from expressing an opinion as to the rates laid down by the Railway Commissioners, which are presumed to be significant of the service rendered by them, and since the Commissioners have informed the Committee that they can deliver goods *viâ* Koorawatha cheaper than they can *viâ* Young, this statement must be regarded as representing the facts of the case.

The Sectional Committee were impressed with the importance of the town of Young, and of the possibilities of the Young district, and have endeavoured to fairly weigh the contentions urged by the residents of that place.

The statement from the Chairman of the Young Railway League, which shows that much intelligent attention has been devoted to the question, emphasises several considerations, as follows:

1. The proposed line from Koorawatha to Grenfell.
2. The proposed extension from Grenfell to Wyalong and Hillston.
3. The proposed line from Young to Grenfell.
4. The proposed direct federal line from Werris Creek to Demondrille.
5. The proposed federal and commercial line from Temora to Wyalong, Hillston, Broken Hill, and Adelaide; in conjunction with—
6. The proposed line from the vicinity of Moss Vale or Exeter to the Illawarra district.

Nos. 1 and 3 have already been dealt with in the statements with reference to local conditions.

No. 6 may be dismissed as being too remote to be intimately connected with the railway under consideration.

No. 2. It was determined by the full Committee that the extension to Grenfell did not necessarily finally decide the route of a railway to Wyalong. The case for a railway to Grenfell rests on the importance and possibilities of the Grenfell district, and is limited by lines laid down in the sketch herewith. Very little, if any, of the country only affected by an extension *viâ* Temora to Wyalong is included within the area presumed to be benefited by the construction of a railway from Koorawatha to Grenfell.

It is conceded by the advocates of the Temora-Wyalong line, even if it be constructed, that a line from Young to Grenfell must also be made. Therefore, the connection of Grenfell with the railway system is not antagonistic in itself to the Temora-Wyalong line.

No. 4 federal line. It is not within the scope of the Sectional Committee to express an opinion with regard to the wisdom of the location of the Orange-Forbes or Blayney-Murrumburrah line, but it is apparent that these lines may have complicated the design of a direct line from Dubbo to Young.

Again, the disadvantage entailed on travellers from the Southern line along this federal railway, if one section be from Koorawatha instead of from Young, will be at least partially compensated for by a shorter journey from the vicinity of Blayney and of traffic east therefrom.

In other words the distance is shortened from a portion of the main Western line by the amount it is increased from the Southern.

No. 5 line to Broken Hill and Adelaide. The commercial aspect of this line is fully set out in the Public Works Committee's Report on the proposed Railway from Condobolin to Broken Hill.

The Sectional Committee recommend that the line from Koorawatha to Grenfell be carried out.

THOS. EWING,
Chairman.

Sydney, 10 March, 1898.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

MINUTES OF EVIDENCE.

RAILWAY FROM KOORAWATHA TO GRENFELL.

[TAKEN BEFORE THE SECTIONAL COMMITTEE.]

MONDAY, 21 FEBRUARY, 1898.

[The Sectional Committee met at the Public Hall, Koorawatha, at 2 p.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).
 THE HON. DANIEL O'CONNOR. | HENRY CLARKE, Esq.
 JOHN LIONEL FEGAN, Esq.

The Sectional Committee proceeded to consider the expediency of constructing a line of Railway from Koorawatha to Grenfell.

George Barr, farmer, Koorawatha, sworn, and examined:—

1. *Chairman.*] Do you desire to give the Committee the benefit of your experience in connection with wheat-growing? Yes. I am a share farmer of three years' experience. The first year I put in wheat at Warrangong. I was late in starting harvesting operations, and I just about cleared expenses. In the second year I had 100 acres under crop, and got a return of £222 as my share. In the third year I made about £1 6s. 8d. per acre as my share, and I had 167 acres under crop. G. Barr.
21 Feb., 1898.
2. Then you have increased your area this last year by 67 acres? Yes.
3. Have you included your labour in the return for the third year? No; I have given you the gross return.
4. What would be the net return after paying for the labour? I have not gone into that matter.
5. Do you desire to express an opinion with regard to sheep-farming? My experience is that sheep-farming would not give as good a return as wheat-farming.
6. What do you think sheep-farming would give you per acre? About 5s.
7. Therefore, the substitution of wheat for sheep means an increase in the value of the products of about fivefold? Yes.
8. How far will you be from the proposed railway, if constructed? Between 6 and 7 miles north.
9. What does it cost you to get your wheat to Koorawatha? 6d. per bag, or 5s. per ton.
10. How far have you to carry it? About 10 miles.
11. If the line were constructed you would intercept it a few miles out? Yes.
12. What are the rates in this district for carrying wheat 10, 20, or 30 miles? For 10 miles the rate would be 6d. per bag; for 20 miles it would be 1s. per bag; and for 30 miles it would be 1s. 6d. per bag.
13. Is that a fair rate? Yes.

William Allen, farmer, near Koorawatha, sworn, and examined:—

14. *Mr. Clarke.*] Where do you live? Two miles north of Koorawatha, towards Cowra. W. Allen.
21 Feb., 1898.
15. Are you farming on your own account? Yes.
16. What area of land do you hold? 893 acres.
17. Do you work it all with your own labour and that of your family? Yes.
18. Do you pay for any outside assistance? A little during harvest time.
19. Do you do any dairying? Yes.
20. How many cows do you milk? About forty-five at present.
21. Would you be able to milk more in good seasons? Yes; I have milked as many as fifty-five.
22. Do you separate the milk yourself? Yes. I send cream into Young, and I also churn a little at home. I supply the store at Koorawatha.
23. Does the butter factory at Young buy the milk from you, or does it churn it for you on your own account? The Company are supposed to churn each lot separately, and we get a return of what butter is taken from the cream. I may say that for eighteen months I have sent the cream to Denham Bros., Sydney.
24. How much of your property is under wheat? I had 90 acres under crop this year, and I have cleared another 90 acres for next year.
25. Where do you sell your wheat? Generally in Young.
26. If the proposed line were constructed to Grenfell, would you derive any benefit from it? I would if it went further out—to Wyalong.
27. Would you get a better market for your butter in that direction than you would for wheat or flour? I think so. I had to send wheat to Wyalong, *via* Temora, for about nine months. It was carted from Temora

- W. Allen. Temora to Wyalong. Two years ago I had an application from Hay for the whole of my butter all the year round.
- 21 Feb., 1898. 28. If the proposed line were constructed, would you get a better market for your butter or produce? Yes.
29. Would you be able to extend your area for wheat-growing or dairying? Yes; I am clearing a little every year. I intend to put the whole of my holding under crop eventually.
30. Is not a great deal of the land between Koorawatha and Grenfell worked on the halves system? Yes.
31. Is there much land being worked on the halves system about Koorawatha? The Warrangong Holding is the nearest, and that is about 2 miles from here.
32. Do you consider that wheat-growing on the halves system is profitable to those engaged in it? Those who are engaged in it seem to stick to it.
33. It has been said in evidence in Sydney that small farmers or settlers carry on the cultivation of wheat more profitably on their own account than on the halves system? They might do so, if they had money with which to clear their own land; but people who have no capital cannot do so.
34. Have not those who are working on halves to find horses and farming implement with which to carry on operations? Yes; but I think that those who are working on halves assist, in deserving cases, in finding both food and horses to carry the tenants through to the next harvest.
35. Does wheat-growing pay as well as dairying? You can make a living out of dairying. I have been working at dairying since 1854—including thirty years in Victoria.
36. For what number of years will the land continue to grow wheat without deterioration? If a person is going to work it right out, about six years will cook it, but I would not attempt to farm more than three crops, at any rate.
37. By giving the land a rest, by putting sheep upon it, ploughing it up, and laying it down with grass, it will, I suppose, in a few years time be again profitable for wheat-growing? Just as good as ever.
38. What kind of grasses do you consider the best in this neighbourhood? Lucerne is considered the best, where it will grow. If lucerne will not grow the next best is burnet grass.
39. Do you think lucerne would grow to advantage on any except rich alluvial land? It will grow almost anywhere in this neighbourhood. I do not think, however, that it will be a success on cold clayey land.
40. What do you call a success—for making hay or for grazing? Both.
41. What quantity of lucerne should you get per acre? There is very little grown in this neighbourhood, but down on the creek it is grown to advantage. They have cut about 2 tons to an acre there.
42. I suppose the yield would depend a great deal on the quantity of rain? Yes. In dry seasons the yield might be a ton to the acre, but if there be plenty of rain it would largely exceed that.
43. Do you think the construction of the proposed railway would benefit the inhabitants generally? I think so. I also think that when the Crown lands towards the west are thrown open there will be a further influx of Victorians.
44. Is there much Crown land available for settlement? I think so.
45. I presume there are some large holdings between Koorawatha and Grenfell? Yes, including Brundah, Iandra, and others.
46. Do you think, in the event of the railway being constructed and settlement increasing, that those large areas are likely to be cut up and sold by the proprietors? I should think so, particularly in view of the large holdings which are being cut up and sold in Victoria.
47. Do you think a railway from Grenfell to Young would be more profitable or convenient to the people than one from Grenfell to Koorawatha? That I could not say.

David Anderson, farmer, Koorawatha, sworn, and examined:—

- D. Anderson. 48. *Mr. O'Connor.*] Where is your holding? About a mile north from Koorawatha.
- 21 Feb., 1898. 49. How long have you been in the district? About seven years.
50. What land do you hold? 5,000 acres.
51. How many acres have you under cultivation? 100 acres.
52. What do you grow? Wheat only.
53. What do you do with the balance? It is lying idle.
54. What advantage would a railway between Koorawatha and Grenfell be to you? It would enable me to get something for my produce from the market. If we had a railway to the back country, we could send our produce there. I have sent chaff to Sydney, and all I got for it was 2s. 3d. per cwt.
55. How would a railway from Koorawatha to Grenfell help you? I should get a better market out in the west.
56. Do you know the country between Koorawatha and Grenfell? I have been over it.
57. Is there a lot of land in the district free from cultivation? Yes, lots.
58. Do you think, if the proposed line were constructed, any considerable quantity of that land would be occupied? I think so.
59. You have only 100 acres under cultivation at present? Yes; but I have 325 acres cleared.
60. Do you consider the present prices for wheat are fair prices? Yes; wheat-growing will pay at the present time.
61. Having so much land, how is it you do not utilise it? The season was so bad last year that I had to look after my stock.
62. What stock have you on the land? About 3,000 sheep.
63. Have you any cattle? I had some—about sixty head—but twenty-five died. I have still thirty-five.
64. Does sheep-rearing pay you? Yes.
65. Would the opening of a railway enable you to put more land under cultivation? Yes; I would clear a lot more.
66. *Mr. Clarke.*] What do you think would be a paying price for wheat? If you had 300 or 400 acres in, 3s. per bushel would pay.
67. Would 2s. 6d. a bushel pay? It might, if you had a good quantity in.
68. Would it pay you to employ labour at that price? No.

John Murray, Manager, Iandra Station, sworn, and examined :—

69. *Mr. Fegan.*] Have you any land of your own? Yes, 120 acres.
70. How far is your land from Koorawatha? About 17 miles—near Iandra.
71. How long have you been manager for Mr. Greene? About four years.
72. Then you have had a good deal to do with the cutting up of various portions of land for wheat-growing? Yes; I may say I have been in Mr. Greene's employment for ten years, but only as manager for four years.
73. Has the halves system on Mr. Greene's holding been a success? It has been a decided success.
74. What are the largest holdings you have under the share system? About 800 acres.
75. Who holds that amount? A man named Ritchie.
76. When did you cut it up for him? Four years ago. He has had four crops off it. From a portion of it he has had five crops. Four years is the term during which the halves system has been in vogue there.
77. How many acres had he under wheat? Almost the whole, with the exception of about 20 acres.
78. How many bushels to the acre has he obtained? I think he averaged for the five seasons about 9 bushels to the acre. 1895 was a very bad year, and he was permitted to keep the entire crop.
79. Has that paid him? Yes, well.
80. Was he in this district before he commenced work on halves? Yes; he was in this locality. He had been a railway contractor, and was tank-sinking.
81. Had he been a farmer prior to that? He had been some years ago, but not for any length of time.
82. Practically speaking, then, taking into consideration the new methods of farming, he was almost new to farming? Yes.
83. How long did it take him to get the 780 acres under crop? I could scarcely say. He had not that amount of land for the whole of the five years. He only got that amount last year, and owing to the dry seasons he worked piecemeal. He started ploughing, and then had to knock off for want of rain, and so on.
84. Do you know the conditions under which the men on the halves system get their land from Mr. Greene? Yes.
85. Is there anything in those conditions intimating to those who take land from him that at the end of four years it must go into lucerne? No; there is nothing of that kind. The leases are for three years, and in almost every case the lease is continued for another year, and in some instances for two years. In some instances, land taken up for three years has been cultivated for five years, and if a tenant wished to put it in crop again for the sixth year, he would be quite at liberty to do it.
86. Have you had any instructions to stop men from growing for more than four years? No; on the contrary, my instructions have been that whilst the men are willing to keep on cultivating the same land they are to be allowed to do so.
87. Then, if there has been a report to the effect of what I have stated, it is not true? It is not.
88. Have any of the farmers on the Iandra estate allowed their land to go back to grass or lucerne? A few of them have; a few of them gave up their land last year—after having been there for four seasons—and took up fresh land.
89. Was any compulsion used? No; the land had become foul, owing to bad seed being used—it had got dirty. It was the tenants' own fault. They could have sown the land if they had wished; but, of course, they could see, and Mr. Greene could see, that it would not pay to cultivate the land again, but that it would be better to give it a rest, and get it clean again for the following year or the second year.
90. In what capacity have you worked for Mr. Greene other than as manager? As boundary-rider and stock manager.
91. Prior to the halves system being introduced, how many men were permanently employed on that large estate? From four to five, with the exception of the shearers. If there was any special work to be done, more hands, of course, were employed.
92. How many permanent hands are employed upon it now? In the busy part of the year, fully 200.
93. I do not refer to the busy part of the year? About 150 to 160.
94. Can you express an opinion as to the prosperity or otherwise of the settlers? I think they have done very well—far better than if they had been farming on their own land. As a matter of fact, a great percentage of the farmers' own land in different parts of the country. There are a great many from Cootamundra.
95. Do they prefer to work on the halves system? Yes.
96. What is the reason? The chief reason is that they have only small holdings, and have not the means to get them ready for the plough. They prefer to come where there is an unlimited scope to operate upon. Apart from that it gives their own land a rest.
97. Am I to understand from that that these people are not here permanently, but will soon leave and go back to their own homes after their land has obtained the rest it requires? I think that probable that some of them would not be permanent—that is, the men who own land of their own.
98. Therefore, to a certain extent, the increase of population under the halves system is only a fictitious growth? Men may come for two or three years, and then go back and work their own land. I believe that that is the intention of some of the tenants.
99. You have stated that you will have other people making applications? Yes.
100. Have such applications been made already? Yes; far more than we can supply land for.
101. How many applications have you? At least twenty have applied for land this year whom we have not been able to supply.
102. Did they know the conditions? Yes.
103. How did they get to know them? They wrote for copies of the lease.
104. Did you give them the conditions of the lease without having vacant allotments for them? Perhaps. It is early in the season before we are able to finally settle what lands we will have for tenants.
105. Do you send the conditions to men when you have no ground for them to take up? We send it before we have decided, or before we know exactly what amount we have. We do it at their request.
106. If you have eight or nine allotments, and there are twenty applications for them, Mr. Greene, I suppose, exercises his own judgment in dealing with those applications? Yes. The man who is in the best position—and if we know anything to his advantage—of course gets the preference.
107. Has any of that which has been cultivated been put under grass and lucerne? Yes, some of it.
108. With what results? Very good results.
109. Do you know the condition of the pasture in former years? Yes.

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- J. Murray. 110. How many sheep were there to the acre then? At times, as a breeding establishment, it would only carry about one sheep to the acre—that is, the ewe and the lamb.
- 21 Feb., 1898. 111. Would it carry that all along? I believe it would.
112. Where crops have been taken off and the land has been allowed to go to grass, what would it carry? We have not been able to give it a fair trial, but it will carry a great number of stock for a short time. Until the lucerne and other grasses were sown, there were practically no fat stock.
113. Then you formerly used the runs which have since been used for wheat as fattening runs? Only a small portion. All the ground which has been laid down has been chiefly new ground.
114. But where you have taken the crops off, and allowed the land to go to grass, you use it for the purposes of fattening? Yes. Of course the land will in the course of a few years go back again into cultivation—that is, the land that is being allowed to grow lucerne or grass—or it will spell and go back to natural pasture.
115. Do you know Mr. Greene's intentions so far as that matter is concerned? Of course there will be some land falling out of cultivation and being spelled, and after a certain number of years it may be broken up again and cultivated with wheat.
116. What experience have you had as a farmer? An almost unlimited experience—twenty years.
117. Have you known wheat to be grown successfully for ten, fifteen, and twenty years? I have.
118. Why do you allow so many acres to go back every year;—is it because the land is inferior? No. The land is not impoverished in any way, but it becomes foul and dirty, and it pays better to let it go back to natural pasture for a year or two and to heavily stock it, and thereby get it into such a condition that it will grow another crop.
119. Have any of the men offered to buy out the portions of the land which they are working? Yes.
120. With what result? There has not been anything definitely done about it.
121. For what reason? I could not say exactly. I do not think there has been any direct proposal to Mr. Greene; it has only been talked about. I know that some of the men have been willing to make offers, but I could not say whether any offers have been made.
122. Do you know whether Mr. Greene is willing to sell his land to the present workers? Yes; I have heard him say that he is willing and anxious to do so.
123. Do you know the route of the proposed railway? Yes.
124. How far is Koorawatha from Iandra? About 14 miles. The distance from Iandra to Grenfell is about 20 miles.
125. What sort of a road have you from Iandra to either Young or Koorawatha railway station? Very fair.
126. Are there any conditions attaching to the use of any of these roads? No.
127. Have you a free road? Yes, to Monteagle.
128. Where do you send your wheat to? To Monteagle.
129. Does none come this way—to Koorawatha? No; simply on account of the bad state of the road.
130. Do you not send any wheat to Koorawatha station? No. The principal objection is the bad state of the roads.
131. Do you know of any other reason why people do not send wheat to Koorawatha? No.
132. Is there a fairly good public road from Grenfell to Koorawatha? I believe there is, but I have never been right through it.
133. If there were any exceptional conditions attached to the use of that road, would you know of them? I do not know of any.
134. Have you to come through private property to get to Koorawatha? I believe so. We have to come through some part of Warrangong.
135. Whose holding is that? Mr. Suttor's.
136. Do you know of any conditions attached to the use of the road? I do not.
137. Is any charge made for its use? I do not know.
138. What is the gross tonnage of the wheat sent from your estate? Last year we sent away 25,000 bags.
139. What is the charge for carriage from the estate to Monteagle? Eightpence and 9d. per bag.
140. How many miles is it to Monteagle? About 12.
141. What did you pay last season? 7d., 8d., or 9d.
142. Where did you send your wheat to? Last season the bulk of it went to Young.
143. What was the freight per bag to Young? About 2d.
144. And you sent away 25,000 bags? 20,000 bags went to Young, and the other 5,000 to Murrumburrah, and some to Sydney and other places. Very little went to Sydney.
145. What good would the construction of the proposed line do the people between Koorawatha and Grenfell? It would do a great amount of good. It would enable the people to send their produce out west, as well as along existing lines.
146. Would it enable some of the landowners to open up more land on the share system? It would.
147. What hinders you at present from keeping pace with the applications? We have not been able to get the land cleared.
148. Are there any other reasons? A good deal of the land we are now clearing is on the furthest end of the run. The further you go north, of course, the dearer is the carriage.
149. How far is the furthest north end of the holding from Young? 28 miles.
150. I suppose you know that there is a counter proposal to connect Grenfell with Young? Yes.
151. Why, in your opinion, should one route have preference over the other? In my opinion a good portion of the "white line" would go through inferior country. It is not such good agricultural country.
152. Has it been tried? It has; but a good deal of it is broken, rocky, and steep. There is also a lot of scrubby country, and some of the properties do not seem to have been worked with a view to their improvement. It would cost a lot to put the land there into such a state that it would be fit to grow crops.
153. Would it not cost a lot of money to do the same in the Koorawatha district? Yes; but not so much. This part of the country has been better improved and looked after.
154. What is the difference in the cost of clearing on the two routes? The difference would be double.
155. Have you not as heavily timbered country between Koorawatha and Grenfell as you have between Grenfell and Young? Yes; but the bulk of it between Koorawatha and Grenfell has been well attended to, and all the timber is dead.
156. Is not that the case between Young and Grenfell? Not on a great portion of the route. I know of 10,000 acres which the "white line" would pass through which is in a wild state.

157. Would not the Young connection serve a larger population? I think not, if you take into consideration the number of tenants who will be on the land under the halves system.
158. Have you any good ironbark in the district? There is some near Grenfell.
159. How far from the route of the proposed railway? The railway would pass through a small portion of it.
160. I suppose that none of the people working on the halves system have tried dairying? No.
161. Do you know whether, under the agreement with Mr. Greene, they could try it if they found it more profitable? I believe they could.
162. Are you not sure about it? It is a thing which has never been proposed.
163. *Chairman.*] What is a fair rate for the carriage of wheat and wool per ton for a distance of 10 or 20 miles? For wheat, a distance of 10 miles, the charge would be 7s. 6d per ton; for a distance of 20 miles it would be 11s. per ton; and for a distance of 30 miles it would be 15s. per ton. For wool, a distance of 10 miles, the charge would be 12s. 6d. per ton; for a distance of 20 miles it would be 16s. per ton; and for a distance of 30 miles, 18s. per ton.

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John Campbell Pease, saw-mill proprietor, Koorawatha, sworn, and examined:—

164. *Chairman.*] How long have you resided at Koorawatha? Ten years.
165. How will the construction of the proposed railway extend your business? If the line is constructed, I have to supply 2,500 feet of pine timber a day to Cowra, Young, Murrumburrah, and Blayney. It is my intention, if the line is constructed, to move to Grenfell, and I shall send along the line 2,500 feet of timber a day.
166. How far is the timber from Grenfell? About 16 miles away. I should draw it from the west of Grenfell. I should cut it up in the forest.
167. What timber do you intend to truck? Pine principally, and ironbark. Of course I could not compete against Narromine and Coolamon without the line. I may mention that other mills might supply double the quantity I refer to as well.

J. C. Pease.
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Walter Sydney Suttor, farmer and grazier, Warrangong, sworn, and examined:—

168. *Mr. Clarke.*] I understand that you are a large landholder in the immediate neighbourhood of W. S. Suttor. Koorawatha? Yes.
169. Can you supply the Committee with any information as to the advantage which would accrue to yourself and the district from the construction of the proposed railway? It would give us a further market out towards Grenfell, and it would also assist us to get our produce the other way. It would enable us to clear more land, and would induce farmers to cultivate it.
170. On the share system? Yes.
171. Is much of your land let out on the share system? Yes; about 5,000 acres.
172. If the line were constructed, would you be able to increase your area under cultivation? Yes; in fact, I have applications now for 10,000 acres from men wishing to work on halves.
173. So that as fast as you can clear the land you have no difficulty in finding tenants? No.
174. Do you consider the share system to be beneficial to both landlord and tenant? Certainly. I know of one man who has put in 570 acres for me this year, and his share—I settled with him to-day—came to £825.
175. Is that the gross amount? That is his gross half-share.
176. That is the amount he will have for his labour and everything else? Yes.
177. How many hands would he employ? Four, and there are three extra men at harvest-time to work the machinery.
178. What does it come to for each? Over £100 a year.
179. How many horses would be employed on that area? About 20.
180. What would be their probable value? £200 or a little more.
181. Do they use reaping machines? No; they use the stripper, which they find themselves.
182. Would not that also have to be taken from their earnings? That would be taken from their earnings the first year they started—four years ago. The same men, on 312 acres last year, had a gross return of £633. Another man, this year, on 160 acres, had a gross return of £208. Another man, on 192 acres, had a gross return of £154 10s.; and another man, on 57 acres, had a gross return of £115 17s. 3d.
183. Do you sell your produce at Young? No; at Sydney and Bathurst.
184. Who pays for the cartage from the farms to the railway station? Each farmer pays his own share. It costs about 1d. per bushel.
185. That will also be another reduction from their earnings? Yes.
186. Do you think it would be profitable to continue to grow wheat at as low a price as 2s. 6d. a bushel? I think it would be possible to grow it at 2s. a bushel.
187. Would it be possible to grow it under that amount? It depends on the machinery. If they could get over a larger area of ground they might do so.
188. Has wheat been at a high price this year? It was higher last year.
189. Why was it higher last year than in previous years? I think it was caused by the bad season the year before, and the shortness of supply all over the world. Of course our prices are fixed by Mark-lane, London.
190. If a railway is constructed to Grenfell, in what way will it benefit the farmers? It will enable them to have an extra market to which to send their produce. Two years ago I sent about 200 tons of chaff to Grenfell by team.
191. Independent of the Sydney market, I suppose you would also have a market for your wheat, chaff, and hay, and other produce, out to the West—Wyalong for instance? Yes; in all probability the construction of the line would induce someone to erect a mill here, this being a central position.
192. Is the cost of cartage to Young a heavy item? Yes.
193. And that would be saved to a considerable extent? It would.
194. How many men have you working for you now, compared with the number you had before you commenced the halves system? Before I started on shares I think I had myself and three men on the place. Since I have been farming I have had about seventy. A good number of my farmers are permanently situated on the land. They have not farms elsewhere.

195.

- W. S. Suttor. 195. Have any of the farmers working on shares come from Victoria? Yes; there are also some from Bathurst.
- 21 Feb., 1898. 196. Do you think it will be to the greater benefit of the people between Koorawatha and Grenfell to have the proposed line constructed than one from Young to Grenfell? I think so.
197. Is there a good road from Grenfell to Young? Yes.
198. What kind of a road have you from Grenfell to Koorawatha? Very poor; it was hardly passable a fortnight ago.
199. Then the carriage alone would be a considerable item? Yes.
200. What is the carriage from the various farms to Koorawatha? The carriage in my case was divided into two different districts. In one part we paid 3d. a bag, and for the longer distance 4d. to 4½d. a bag, and as high as 5d. That is a little over 1d. per bushel.
201. Would that be saved to any great extent by the construction of the proposed railway? It would if we had a siding on our paddocks.
202. Still you would have to cart a short distance to any railway? Yes; the proposed line goes right through my cultivation paddock, and if I had a siding there it would make a great deal of difference.
203. What is your opinion of the share system? My opinion is that it is more profitable to the farmers than working on their own account.
204. If a man does not work his land properly, I suppose in self defence you get rid of him? Yes; but I have not lost any since I started.
205. *Mr. Fegan.*] Does not a great deal of wheat come from Brundah? Yes.
206. Has it to come through your land? Yes.
207. Is it possible for the people from Brundah to get here by any other road than that? Yes; by going a long way round.
208. In what condition is the road which goes a long way round? It is in bad order.
209. Are there any bridges over the creeks? No.
210. If the creeks are full, how can the wheat be got from Brundah? They must wait until the creeks are down.
211. Is it a fact that under certain conditions it is impossible to get to Koorawatha except through your land? Yes.
212. Do the teams come through your land free of charge? No.
213. What arrangements do you make? The teams camp in my paddock two nights and water their bullocks. I am paid a certain sum for the accommodation—1s. 6d. a night for each team.
214. Then a railway to Grenfell would assist that portion of the district, inasmuch as it has no public road which is passable if the creeks are up, and under present circumstances there is a charge upon the teams coming through your land? Yes. Of course, I do not charge the teams for coming through the land, but for camping in the paddocks, and for the feed and water for the cattle.
215. Do you not think it strange that there should be no proper road for the cartage of produce to market? I do.

John Quayle Wood, pastoralist, Brundah, sworn, and examined:—

- J. Q. Wood. 216. *Mr. O'Connor.*] Have you any statement to make to the Committee? Yes. I hold a twofold position in the district—first as a landholder, and then as Chairman of the Railway League. In order to show the importance of share-farming, I have made out a statement of the value of the plant on our property. We have 6,000 acres under cultivation, and a further 3,000 acres arranged for for next year. The value of the plant used in working the 6,000 acres is £10,437. I mention that to show the importance of the industry, because it has been stated in the public press of an adjoining town that the share system is only likely to last for two or three years—in fact, until the railway is constructed. This industry had its birth before the railway was thought of—before anyone dreamt of a railway to Grenfell—and was really the result of necessity. The Crown lands having been absorbed by selection, our areas were so reduced that it was necessary to resort to some other form of working the ground than grazing. In other words, it was a case of adaptation to environment. There were sixty-one teams employed this year in moving the crop to the train, at a cost of between £800 and £900, and there was often great difficulty in getting teams at any price. That does not take into account any charge for grass and water for the 800 head of stock engaged in carrying. The season being very dry, we were enabled to get our produce here with far less difficulty than we expected. Still, it is necessary to point out that, if we reach the limit of production in an ordinary season, we shall not be able to move here without a metalled road. The question has been asked in evidence as to the number of men employed on adjoining holdings. With respect to Brundah, I find that I originally employed two men, at a cost of about £150 a year for the two. This last season, fifty-four men were employed in putting in the crop, and 147 in taking it off. That is exclusive of carriers, and takes no account of the men engaged in clearing. With respect to the question of routes—the route to Koorawatha is the only one which would be of any use to myself, or to the settlers living anywhere on this side of a line drawn about north and south, and, say, about 10 miles east of Grenfell. To the people living on the eastern side of that line no other route would be of any use at all, for the stuff would still come to Koorawatha or Monteagle. When I gave evidence before a Sectional Committee in Grenfell, on a recent occasion, it was stated that there was an area of about 46,000 acres, which included the Bimbi return; but exclusive of the Bimbi returns, 40,000 acres were under actual cultivation. It was stated at the same time that the land-owners were prepared to clear a further 60,000 acres in the event of a railway being constructed to Grenfell. In redemption of that promise we find now, from the returns lately collected, that there are actually 21,601 acres of new land ready for cultivation, which, added to the 43,969 acres under crop this last season, leaves a total cultivation area of 64,670 acres ready for this season's cropping, within 15 miles of each side of the proposed railway.
217. When will operations commence? As soon as rain comes. Some have started already. The yield last season throughout that area was an average of 12 bushels of wheat to the acre. There is a promise that in the event of the railway being constructed there will be a further 93,985 acres put under crop. I dwell on that, because when the settlers previously promised that they would put 60,000 acres under crop, within twelve months they had cleared 21,000 acres, so that it may be reasonably inferred that they meant what they said. Of fat sheep there were actually 34,000 sent to Sydney market last year, and there is a promise

promise of 80,000 fat sheep per annum being sent, in the event of the railway being constructed. 9,205 J. Q. Wood.
 bales of wool were despatched in 1896 from the area to which I have referred. The wool goes from a little further west than 20 miles, and includes what is sent from Mr. Gibson's station, Caragabal. 21 Feb., 1898.
 That wool must of necessity come to Grenfell, for it comes to Cowra now. The amount of butter made last year was 9,232 lb., a small amount, due to the drought. I now come to the question of rates, which is a very important matter as regards the townspeople, and I beg to hand in the following return:—

	Railway Rates.			Team- age.	Cost landed at Stores, Grenfell.		
	1st	2nd.	3rd.		1st.	2nd.	3rd.
Sydney to Young—250 miles + 34 to Grenfell = 284 miles	£4/3 8	£5/4/-	£7/4/6	2/-	£4/5/8	£5/6/-	£7/6/6
Sydney to Cowra—219 miles	£3/10 -	£4/6/11	£6/0/7	20/-	£4/10/0	£5/6/11	£7/0/7
Sydney to Koorawatha—237 miles + 30 to Grenfell = 267...	£4/0/1	£4/19/6	£6/18/3	2/-	£4/2/1	£5/1/6	£7/0/3
Sydney to Young—250 miles	£3/16/6	£4/15/1	£6/12/-	2/-	.....	.....	.....

218. *Chairman.*] Do the Grenfell goods come *via* Cowra, and not *via* Young? Yes; they come *via* Cowra now. It costs 10s. a ton more to get them by way of Young than by way of Cowra. In the event of the line being constructed, the cost of first-class goods delivered at the store in Grenfell would, as the return shows, be £4 2s. 1d. per ton from Sydney. These goods, if brought by way of Cowra, cost £4 10s. a ton. It would be distinctly cheaper to bring them by way of Koorawatha, and no teams could compete in that section. The figures will show that the Koorawatha line could easily beat both the Young line and the teams from Cowra. The third-class goods is the only class where there is any closeness of carriage. There is, however, this difference—that for only the first-class goods teams could scarcely get sufficient inducement to keep on the track, and if they had not sufficient haulage they would go off; but if they had the second and third-class goods as well, that would be an inducement for them to keep on the track.

219. Your statement has reference to imports;—what about the produce? If a line were constructed to Young, I think that about 50 per cent. of the agricultural produce would be lost to it, because it is sent to the western and northern market; and, unless it could go by way of Cowra, it would never pay to truck it at Grenfell and send it to Young, and bring it back to Cowra. I do not think the wool rates would make much difference; whether it went by way of Grenfell or Koorawatha, it would all go by the train, just the same. It is the loading from Sydney which makes the difference, because the storekeepers in Grenfell are very strong about the Koorawatha connection. I desire that the evidence given by me on the Euabalong to Condobolin railway should be incorporated with my evidence on the present occasion. It is as follows:—

Chairman.] You are distant how far from Grenfell? Twelve miles from Grenfell in an easterly direction.

Your station lies between here and Koorawatha? Yes.

What is the extent of your holding? 16,000 acres.

You are running sheep? Yes; and I am also cultivating.

You have heard of the proposed railway from Condobolin to Euabalong, and you are here to give evidence in favour of an alternative route? Yes.

How long have you resided in this district? I was born in it, and I have lived in it ever since.

You have practically seen the district grow up? Yes, from a wild bush. It was scarcely settled in my early days.

I suppose settlement in those days was confined to pastoral occupation? Yes.

You have devoted some attention to farming pursuits? Yes, of late years.

Your areas have been restricted by the resumption of certain portions of the runs, and you now find it necessary to engage in agriculture in order to work your holdings profitably? Yes.

What area have you under cultivation on Brundah? I have under actual crop 6,500 acres, and I have 2,500 acres prepared for cropping next season.

You will then have 9,000 acres under crop? Yes.

What has been your experience as to the success of agriculture on a large scale? Up to the present time we have had to contend with the worst drought ever experienced in the district; but, notwithstanding droughty conditions, the crop last year paid better than the land would have paid under a pastoral occupation.

Is it your intention to still further increase your area under crop? Yes; up to 14,000 acres.

Out of your 16,000 acres you intend to have 14,000 under crop? Yes; I do not think I could say more than that. It would be necessary to save 2,000 acres for our working stock. I think I could be sure of keeping 14,000 acres under constant cultivation if we had the railway here.

What is your difficulty at the present time? The want of railway facilities.

How far are you from a railway? From our place, taking the homestead as the central point, it would be about 15 miles to Koorawatha; but there is difficulty in moving the produce. Last year the road carriage, from the drought, was very expensive. The cost of carrying the wheat over the 15 miles to Koorawatha was greater than the railway charges from Koorawatha to Sydney.

Do you convey your produce by team? Yes; we had great difficulty last year in getting sufficient teams to take it away.

What is your annual return per acre from wheat? The best return we have had from a crop has been 32s. 6d. per acre.

The average last year would be about 9 bushels; it was a bad year.

What has been the yield in a good year? The best yield we have had has been 42 bushels.

Taking the whole of the crops since you started cultivation, what has the average been? About 16 bushels would be a fair average, balancing the bad years with the good.

At what price could you afford to sell wheat profitably? It depends on where the railway is. I have calculated that with the railway close at hand we could make it pay at 1s. 6d.

The market would have to be very low when you could not realise 1s. 6d. a bushel? Yes; we do not expect to see that for many years.

Any price from 2s. upwards would be a good price? Anything above 2s. we should consider good.

If there were a railway here many settlers would be induced to increase their areas under cultivation? Yes.

Is your annual rainfall sufficient to enable you to rely upon the crop? Yes. I only know of two failures, and they would be in an experience extending over thirty-six years. The average rainfall, extending over a long series of years, has been 29 inches.

That would be more than would be required for the successful production of grain? Yes. Our crops at the present time are the most promising I have ever seen, and we have not had 15 inches of rain, but it has come at the right time.

The land you have put under crop was ringbarked for a number of years? Yes.

What was the original cost of the ringbarking? The ringbarking, clearing, and suckering would average about 5s. per acre.

After being ringbarked the land is allowed to lie idle for some few years? In our case we waited about fifteen years. The cost of clearing would not be more than 10s. an acre.

The full cost would be 15s. an acre, spread over a good many years? Yes.

The best course for a farmer of limited means, who could not well afford to clear the country right out, to adopt would be to clear the lightest timbered portions of the land and to ringbark and sucker the other portion as you have done, allowing nature to assist him? Yes.

After a few years had elapsed he would be able to gradually increase his cultivated area every year? Yes, without being too heavily handicapped by expenses.

Upon

J. Q. Wood. Upon your holding of 16,000 acres, what is your expenditure in wages under cultivation as compared with pastoral pursuits? I formerly had two permanent hands at £1 per week, apart from the house servants; they were the only employees I had. You might put down £150 a year under the heading of wages. For the past three years my average payment in wages has been over £1,500 a year.

21 Feb., 1898.

In place of the two hands you formerly employed you are now employing how many? The average for three years would be seventy-two. That does not touch the share-farming.

By putting land under cultivation and providing employment for people who would not otherwise obtain it, you put a certain amount of additional money into circulation in the district? Quite so.

In addition to the area already farmed by yourself you are dealing with an area under the share system? Yes.

Does the share system apply to the 7,000 acres you have already under cultivation, or to the 2,000 acres you are preparing for the plough? That applies to the whole of it. We find the system a most satisfactory way of working the land.

What number of share farmers are there upon your land, and what number of men do they employ? The number on the land actually under crop is twenty, and they employ fifty-three hands, apart from their own labour.

So that, in addition to your own seventy-two men, there are seventy-three employed in connection with the share system? Yes; that was last year, with a poor crop. With a better crop this year there would be a large addition to that number of men. There is a great deal of difference between dealing with a 20-bushel crop and an 8 or 9-bushel crop; this year it is all guess-work. We cannot tell now what number of labourers will be required.

With regard to the share system, do you yourself prepare the land for cultivation? Yes; we clear it thoroughly and find the seed-wheat.

You have the land ready for the plough? Yes.

The division of profit is a matter between yourself and the farmers? Yes.

Are the men working upon the "halves" system doing fairly well? Very well; they are all extending their areas under cultivation every year. Some of our men who two years ago had 200 acres under crop have arranged for 1,000 acres this year.

Do the share farmers continuously take the one crop off the ground? Up to date we have done so, but we shall alter that later on. This land was heavily stocked with sheep for many years, and for another three years it will be quite strong enough for wheat; the first year it is too strong. In about six or seven years from the time the land was first put under wheat we propose to put it under lucerne for two years, and then put it back into wheat again; we shall practically be farming on the principle of rotation of crops. The margin of 2,000 acres which I mentioned before will admit of our doing that without reducing the area of 14,000 acres under actual cultivation.

Can you give the Committee any idea of the total area of land under cultivation in this district? I can. I should like first of all to compare the area with the area in 1895. In that year there were 27,248 acres under crop in the whole police district of Grenfell. Last year the area under crop in the small portion which would be served by a railway from Koorawatha to Grenfell was 46,573 acres.

So that there has been a large increase in two years? Yes.

That would seem to prove that both soil and climate are eminently suited for the growth of wheat? Yes. My opinion is that if a railway were constructed through this district it would be one of the biggest wheat-growing centres in the Colony, if not in Australia.

You know the land pretty well between here and Wyalong? Yes.

Is it of similar quality to that you have described upon Brundah? Yes; it is much the same right through.

Do you think the Bland country would be as suitable for agriculture as would the country on each side of it? Yes; I know the general opinion is that that would not be the case; but the best crop I ever saw in my life was at Oakhurst, on the Bland Plains, thirteen years ago. I saw the crop growing and I saw it cut. It yielded 4 tons to the acre on a black soil. Of course, it is difficult soil to work. The work is not done easily; you want proper appliances for it.

The land must be thoroughly tilled before you can deal with it properly? Yes; but the potentialities are in the soil, and it would not be so quickly exhausted as would the soil in the timbered country.

Can you give us an idea of the number of sheep and cattle depastured in the district? In 1895 there were 730,000 sheep, 11,000 cattle, and 3,927 horses. The production of butter in 1895 was 17,156 lb. I point that out to show you the extent to which the dairying industry would be likely to be developed if there were a railway here.

Where was the butter principally manufactured? In the immediate neighbourhood of Grenfell. 13,000 lb. of it was produced principally on the Brundah Creek, within a few miles of the town.

Was that butter despatched to the Sydney market? I think the bulk of it would be consumed locally. Dairying would be one of the most important industries of the district. There was a factory near Koorawatha, and they did a splendid business over there.

As to fat stock cattle, can you give us an idea of the approximate number of sheep and cattle which would be available for transit every year? I should like first of all to refer to the probable development in agriculture which would accompany railway construction. Those who have 46,000 acres already under cultivation have promised to increase that area by an additional 61,702 acres in the event of a railway being constructed, making a total of 108,275 acres. In fat stock there would be 84,200 sheep and 2,156 cattle available.

That would be the number trucked to the Sydney market annually if there were a railway at Grenfell? Yes.

Do your returns embrace the land district of Grenfell? The returns apply to that particular part which would be served by a railway from Koorawatha to Grenfell. They do not cover the whole of the Grenfell district. The whole of the returns are not in from the district which would be served by the railway. I might give more, but have kept upon the safe side.

The returns you have given practically deal with a railway from Koorawatha to Grenfell? Yes; about 15 miles to the west of Grenfell.

They do not take account of the traffic which would be induced by the extension to Wyalong? No.

Do you think that the fact of the small farmers being able to get away small numbers of fat stock would bring about a large quantity of fat stock traffic which does not now exist? Yes; I am perfectly sure of that. I know of one case this year where a small farmer had fat stock which he could not get away, and a number of them died upon his hands.

Do you know what land will be available for settlement? Taking the route from Koorawatha to Wyalong, upon which Mr. Little is engaged, to the north of the Wedden, there are 400,680 acres of reserve, and 468,890 acres of Crown land.

Within what distance of the proposed railway? Within a radius of 20 miles. Upon the southern route, which Mr. Lloyd is surveying, there would be 386,980 acres of reserve and 450,170 acres of Crown land.

That would not embrace any portion of the land affected by the route which Mr. Little has surveyed? I do not think so.

If the figure apply to a distance of 20 miles on each side of either route they would overlap at some point? Yes.

Do you think a railway westward would open up an additional market to the producers of this district? Yes; I think that it would be almost equal to the connection with Sydney.

Where would you look for a market out west? In the Darling country and the district round about Hillston. Wyalong has had large supplies from this district. From the west, in dry time, there has been a demand which could not be supplied in this way. Another great use for a railway in that direction would be to convey stock to this district in time of drought. We have nearly always had grass here at such times.

The railway would enable pastoralists in that direction to get their stock to the mountains? Yes; and at Koorawatha they would have the choice of the Western or Southern lines.

Do you think that if a railway were constructed in this direction the large land-owners would be induced to sell some portions of their holdings? I am sure they would. Only last week I was consulted by a big financial institution as to the possibility of a railway coming through the district, with a view to the sale of property which they had had to take over under mortgage. I know of other cases where there is a likelihood of that being done.

Do you think the land would be sold on terms which would compare favourably with the terms offered by the Crown? As a matter of expediency the owners would have to bear in mind the terms the Crown was offering.

They would be guided in their operations by the terms offered by the Crown? Yes; and I am sure many of them would be willing to sell.

You think the payments for the land might be extended over a term of years? Yes; the occupiers would make money off the land with which to pay for it, although they might not have any money at the time of starting.

Is there anything you desire to add to your evidence? Yes; a considerable quantity of potatoes has been grown in the district, and it is also suitable for fruit-growing, and for the wine industry.

Is the district progressing or is it at a standstill? It has progressed wonderfully since the present agricultural development started.

Until

Until that development started the district was comparatively at a standstill? Yes; no one was doing well and everything J. Q. Wood. seemed going backwards.
 Since you have discovered the profit attaching to cultivation everyone has taken heart, and the district is going ahead again? Yes; from the top of any of the hills here you can see fires all round at night, showing that people are clearing the land in readiness for the plough. 21 Feb., 1898.

A line easterly from Grenfell to strike the Blayney-Murrumburrah line at Koorawatha would be a most suitable line for this district. In a short time we shall be growing wheat for export, and the shortest route to the sea-board is, of course, a most important matter. There will be less chance of selling wheat locally than there has been. It will have to be dealt with in the same way as wool, and shipped away. A good part of our wool has been sold to the west. All the Warrangong wool this year went by the western line.
 220. Do you know whether the people are willing to give the land free of charge to the Government on the route of the proposed railway? With regard to the land turning off on the Young side of Koorawatha as far as Crowther Creek, compensation would require to be paid. From Crowther Creek through portion 97 compensation will be required. It will, however, be possible to re-adjust matters in this instance by means of an exchange with some adjacent Crown land. With regard to the Warrangong estate, an adjustment can be made by arrangement in respect of the land required by the railway. Roads can be given in lieu of the area which will be taken. On the Iandra estate the land required will be given. Near that holding, however, is a property held by Mr. Fruvenstein. This property is traversed by the proposed railway for about a mile, and the owner refuses to make any arrangement. Then the line is clear of compensation until Chas. Wood's homestead selection is reached. He requires compensation, but not a large amount—about £80 or thereabouts. From there for a considerable distance, to about 300 miles from Sydney, the line passes through the Brundah holding, and there the land can be arranged for by giving roads in exchange. From this point several small holdings are entered, and some compensation will be required—I think, in some instances, about £3 an acre; at any rate, it will not be material. Between portions 78 and on to portion 109—what is known as Ipswich farm, the property of the Bank of Australasia—arrangements can be made by giving unnecessary roads in lieu of the area taken. Thence to Grenfell, although there is one narrow holding where as much as £10 an acre will require to be paid, the area taken will be small. In respect of Graham's holding, there may be some difficulty, but the extent of land is not great. From there to Grenfell most of the line passes through Crown land until you approach the station site, to reach which you have to come through some suburban allotments south of the town. There will be some compensation required here.

221. What will the whole compensation amount to? About £1,000. I have not carefully considered the matter, but I have come to the conclusion that £1,000 will cover the whole amount.

222. What is the freight from Young to Grenfell? About £1 per ton, and it would be £2 per ton from Grenfell to Koorawatha. I may state that I could not get my carrier to bring my wool here at any price. With regard to the evidence given as to freight by Mr. Murray, I wish to state that I think the rates for wheat are as follows:—For 10 miles, 6s. 8d. per ton; for 20 miles, 10s. per ton; for 30 miles, 12s. 6d. per ton. The rates for wool are:—For 10 miles, 12s. 6d. per ton; for 20 miles, 18s. per ton; for 30 miles, 20s. per ton.

223. Mr. Clarke.] You have mentioned the number of men employed on your pastoral holding, and also the number you have employed since you commenced wheat-growing;—does that include the number of men employed in clearing? No; it is exclusive of that.

224. Chairman.] Will you make a general statement with regard to the ultimate position of wheat lands in this district? If a farmer were careful on his ground, he could take seven or eight crops right off, one after the other. I have ground which I rented to a tenant, off which he took eleven successive crops of wheat in eleven years, and the ninth crop gave him 33 bushels to the acre. When the ground gets dirty, it should be ploughed and laid down with pasture—lucerne or burnet grass. One advantage in respect of lucerne is that it puts back into the soil the nitrogen which the wheat takes out. The ground, after growing lucerne for two or three years, can be ploughed up again for wheat.

225. And that process could be repeated *ad infinitum*? Yes; that is the experience in America on wheat-sick lands. They used to put in clover, but latterly they have put in lucerne. It puts back into the soil the properties which the wheat plant takes out of it. I beg to hand in the following statement showing the cultivation, live stock, &c., over a radius of 15 miles on either side of the proposed line:—

Cultivation.													Future Cultivation.		Live Stock.										Dairy Produce.		All other Commodities.						
Wheat.				Maize.			Other grains.			Hay.			Area under			Area cleared but not under crop.	Further area that would be cultivated if railway is constructed.	Horses.	Cattle.			Sheep.				Poultry.	Hides, Skins, Tallow, Bones, and Horns.	Amount of Butter made for year ending 31st Oct., 1897.	Amount of Cheese made for year ending 31st Oct., 1897.	Weight received or dispatched for year ending 31st Oct., 1897.	Estimated further weight to be received or dispatched yearly if the district were cultivated.		
Area.	Expected yield.	Yield last season.	Area.	Expected yield.	Yield last season.	Area.	Expected yield.	Yield last season.	Area.	Expected yield.	Yield last season.	Area.	Expected yield.	Yield last season.	Potatoes.				Grape vines.	Orchard.	Any other crop.	Milch Cows.	Other Cattle, including calves.	Fat Cattle sent market for year ending 31st Oct., 1897.	Fat Cattle for Sydney yearly if railway is constructed.							General Flock.	Fat Sheep sent to market for year ending 31st Oct., 1897.
34,529	105,042	66,598	2,006	4,036	..	240	772	704	3,552	5,630	2,066	47	73	66	2,556	21,601	93,985	1,493	870	1,724	1,860	1,962	393,506	34,000	80,062	9,205	262	4,829	54	9,232	1,780	3,494	..

Subsequently handed in at Grenfell: Mixed Commodities—Fisher and Frazer, 24 tons; Joseph Still, 10 tons.
 43,069 acres, total area cultivated, 1897.
 21,601 ,, cleared for cultivation, 1898.
 64,670 ,, for this year, exclusive of Bimbi } 198 holders.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

John McKervy, stationmaster, Koorawatha, sworn, and examined :—

J. McKervy.
21 Feb., 1898.

226. *Mr. Fegan.*] How long have you been at Koorawatha? Since the 10th of January, last.
227. Have you the returns showing the traffic during the period you have been here? Yes. The inwards, principally from Young and Cowra, with small consignments from Darling Harbour, would come west. The outwards traffic would be for Young, Murrumburrah, Bathurst, Darling Harbour, and Newtown. The outwards traffic constitutes the grain. The following are the particulars :—

COMPARATIVE STATEMENT of Traffic and Revenue from Koorawatha.

Date.	Goods Traffic.			Live Stock.								Wheat.	Wool.	Coaching Traffic.					
	Inwards.	Outwards.	Revenue.	Inwards.				Outwards.				Revenue.	No. of bags outwards.	In.	Cut.	No. of Passengers.	£ s. d.		
	T. c. q. lb.	T. c. q. lb.	£ s. d.	Horses.	Cattle.	Sheep.	Pigs.	Horses.	Cattle.	Sheep.	Pigs.	£ s. d.							
January, 1897..	34 1 3 0	810 2 1 0	54 11 4	..	..	..	..	..	..	10	1,959	..	7,500	..	4	80	24 18 11	67 trucks.
January, 1898..	22 17 3 0	1,955 12 3 0	32 12 4	..	..	..	..	..	..	11	3,560	..	18,098	..	125	41 17 3	192 trucks,	or equal to 318 single trucks.
February, 1897..	47 8 3 0	290 15 1 0	20 4 6	..	..	..	..	..	..	..	4,515	..	1,094	..	4	79	37 13 7	
February, 1898..	22 9 3 0	895 13 1 0	29 9 10	..	..	..	..	..	..	..	1,371	..	9,559	..	2	55	30 6 4	

Grain—January to February, 1897 8,504 bags.
January to February, 1898 27,657 ,,
Increase 19,063 bags.

WEDNESDAY, 23 FEBRUARY, 1898.

[The Sectional Committee met at the Court-house, Grenfell, at 10 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).
The Hon. DANIEL O'CONNOR. | HENRY CLARKE, Esq.
JOHN LIONEL FEGAN, Esq.

The Sectional Committee further considered the proposed Railway from Koorawatha to Grenfell.

Thomas Bembrick, storekeeper, Grenfell, sworn, and examined :—

T. Bembrick,
23 Feb., 1898.

228. *Chairman.*] On the 20th October, 1897, you gave evidence before the Sectional Committee in reference to the proposed railway from Condobolin to Euabalong ;—have you had an opportunity of seeing that evidence? Yes.

229. Is it correct? Yes ; and I should like to incorporate it in my evidence to-day, and supplement it. It is as follows :—

Mr. Fegan.] How long have you been in the district? About eighteen years.
You have watched its growth, and can speak as to the gradual increase in the area under cultivation? I was here when every ounce of flour had to be imported into the district.
It was purely a grazing country? Yes.
Now it is a large farming district? Yes.
I suppose the population of the district has steadily progressed? Yes. I find from looking up some official returns that there was no material increase in the population between 1881 and 1891 ; the explanation given is that in 1881 we had a large percentage of mining population, which is usually shifting. In 1891 (ten years afterwards), although no great increase was shown, the actual increase represented a permanent population ; the increased population represents settlement by farmers and selectors. I find, according to the last census, from 1891 to 1895 the increase was very considerable. That is accounted for largely by the discovery at Wyalong. I am taking now the electoral district of Grenfell.
Can you speak as to the town of Grenfell? As far as the town is concerned, in 1891 the municipality numbered about 750, and there were within the population area 1,100. The estimated population of the municipality to-day is 900, and there are within the population area 1,700.
So that there has been a gradual increase? Yes ; taking the electoral district as a whole the population has increased considerably.
Being a storekeeper, you can speak as to the quantity of goods which come into Grenfell, the cost of haulage, and so forth? So far as the business of Grenfell is concerned, I have some information which I think is fairly accurate. I have no particulars relating to the squatters and farmers who obtain goods, but as far as the storekeepers and those in business in Grenfell are concerned, I find from the figures which I have taken from them personally that the aggregate would be about 850 per year. That is the gross tonnage inwards. I have no data as to what is sent out in the shape of milled flour and produce of one kind and another.
What is your nearest railway station? Young is 32 miles away, and Cowra is also about 32 miles away. Our chief station is Cowra, and that is sometimes given as 34 miles from here.
What is the rate of road carriage from Cowra here? It would range from 25s. to 27s. 6d. per ton. I have paid as high as 35s. and 40s. and as low as £1.
That would be in a fair season? Yes.
Does the price increase in time of drought? It fluctuates from 10s. to 15s. per ton.
The average would be about 30s. per ton? Yes.
What do you have to pay on the railway? I get potatoes from Carcoar to Cowra at the rate of 4s. 4d. per ton by rail ; for the same distance on to Grenfell I pay an average of 25s. a ton.
Do you think the same proportion would obtain as regards other goods? Other goods would cost on the railway from 5s. to 10s. more. Potatoes can always be brought at a cheaper rate than case goods.
That means a largely increased cost to the consumer? Yes.
Are you well acquainted with the district between Koorawatha and Grenfell? Yes.
What kind of road is there? It is a fair road in good weather.
How many miles is it to Koorawatha? Twenty-four miles.
And you say it is 34 miles to Cowra? Yes.
Why do you take the longer road? Because it is a made road ; and then there are the creeks to be considered ; there are no bridges or crossing-places made for teams to pass over.
There is no town of importance at Koorawatha, that would be another reason? Yes.
When carriers can be sure of back-loading they do not charge as much? Quite so.

If

If you cart to Koorawatha, you have to pay more? Yes; but of course a considerable amount of wheat has gone to T. Bembrick. Koorawatha from the farms round about here and adjacent to the platform.

A great deal of agricultural produce leaves this district? Yes.

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I suppose it is chiefly wheat? Yes; and when we have our mills running here there is a considerable quantity of flour, bran, and pollard.

Why have the mills been stopped, if wheat-production in this district is increasing? The only way in which I can account for it is, that one mill got into financial difficulties, and the other was in the hands of men who did not seem to progress with the time. We have mills in the adjoining towns with very complete plants, and for the time being the trade was drawn to them. One of our mills has now undergone a complete overhaul, and I am informed by those who know, that it will now be able to turn out flour equal to any plant in the Colony.

Do I understand that both your mills are stopped? At present.

Seeing that this is likely to be a permanent wheat-field, the mills are being put into working order again? Yes; and I hope at an early date to see others moving in the same direction.

I suppose there was an idea at one time that wheat was simply put in as a trial crop? When I first came to the district it was debatable whether wheat would be successful here.

It has been? Decidedly.

Have you any idea of the area under cultivation? I have heard from reliable sources that last year it was 45,000 acres, and the area which has been given to me for this year is 60,000 acres.

Do you buy wheat and sell it? I handled about 7,000 bags last year. I bought the greater portion of it as an agent. I bought 5,000 bags, extending over the period from the 25th January to the end of February, at 4s. 3½d. per bushel. I should like to mention that I bought the first parcel on the 5th January, and I could not move it until the 26th January, although I sought teams in every direction. Such enormous quantities were being moved in other directions that it was difficult to get a team. The teams had been secured earlier. I had to wait until after the 25th January before I could get a team. The team I then got came from near Murrumburrah.

On account of your not having any facilities to get to market, you were unable to lift your wheat? Yes. I lost 1½d. a bushel through not being able to get the first purchases of wheat away within the stipulated time. I should have got 4s. 5d. There were 900 bags in this lot.

Then you sustained a considerable loss? Yes.

Even if your flour-mills were fitted with the latest appliances they would be unable to take all your produce? Yes. It would take half a dozen mills to handle the grain in this district.

Under present conditions you have to look further for a market? Yes.

Where do you get it? In the metropolis or in towns in that direction.

Chiefly in the metropolis, I suppose? Yes.

You are under a great disadvantage in having to cart your wheat 34 miles? Yes. You may put down 4d. a bushel as an average rate of road carriage for the district. In some cases, the rate has been as high as 7½d. I have known wheat to be carted at 1s. and at 10d. a bag; but taking the district all round, 1s. 4d. or 1s. 3d. would be a fair amount to allow per bag.

What are your rail charges to Sydney? Those charges are paid at the other end; we, as buying agents, have nothing to do with them.

What has been the lowest price you have paid for wheat here? I cannot remember paying lower than 2s. 3d.; but I believe that at one time the price was below 2s.

You do not know whether it pays the farmers here to grow it at that price? No.

Will you give us the road carriage on the different classes of goods from here to Cowra, and from Cowra to Sydney? Wheat, 1s. 3d. per bag of 4 bushels; flour, bran, and pollard, 15s. per ton; wool, tallow, and skins, 20s. and 25s. per ton. To Sydney, I cannot say without reference to the rate-book.

Seeing that the farmers here are prospering, they would be purchasing the best farming implements? Yes.

Then the road carriage is a matter of great importance to the district? Yes. I represent one or two firms here—for instance, Massey Harris, of Toronto, Canada. They do a large business in binders and ploughs, and implements of that kind.

Is there a steady demand in the district? There is. Five years ago, when I took up the agency, you could almost give away the implements. In the next year I sold one; and in the present year I have eight actual orders—two of them are only subject to approval of the principal. I am speaking now of reapers and binders. I had a letter from the company the other day, in which they say that they look upon Grenfell as becoming one of their best agencies in the Colony.

Are you selling any other machinery? I am selling quite a number of their make of ploughs. This year I have sold five; I did not get any off last year or the year before.

You are not the only agent for agricultural implements here? No, I am only one of a number.

How many agents are there? I think all the stores in town have an agency. Quite a number of men went down to the exhibition in Sydney some months ago, and bought direct. I also represent James Martin & Co., of Gawler, South Australia. The output of their winnowers and strippers this year will be four times the output of last year.

Will you give the Committee an idea of the benefits accruing from the construction of a railway from Grenfell to Hillston via Wyalong? Speaking from an agriculturalist's point of view, it would benefit us greatly in giving us cheaper carriage. There would be a trade in the direction of Hillston, as well as towards Sydney, if the market suited.

You would then be able to send to the Sydney market under more favourable circumstances? Yes.

And the Wyalong market would be open for a portion of your crop? That is so. In the first year Wyalong opened, ten or fifteen teams were going constantly, and the produce would be going again if we had easy transit.

You think a railway would bring about closer settlement, which would mean that a greater volume of business would be done in Grenfell? Yes.

The construction of a railway from Condobolin to Euabalong would not serve this district at all? Not at all.

Do you think this district is a sound one? I believe it is.

You think that farming has come here to stay? Yes; it is certainly beyond the experimental stage.

You think mixed farming could be profitably carried on here? Yes.

With a fair rainfall you could hold your own with any portion of New South Wales in wheat-growing? Yes; we can compete with any part of the country.

230. We will limit your evidence to such changes in the district as there may have been since you gave evidence on the former occasion? The first matter to which I wish to refer is in regard to the machinery which I mentioned in Question 3871. I mentioned there that I am agent for one or two firms which supply harvesting and agricultural machinery. In answer to the next question, I stated that I had eight orders for binders up to that date, but that two of these orders were conditional. I wish to state now that the result of the year's transactions was thirteen instead of eight sales. Up to date, for these firms, including binders, strippers, chaff-cutters, and ploughs, I have actually sold thirty-six implements. In answer to Questions 3853 and 3854, I gave a reason why the mills were stopped. One of the mills, which was at that time being put in order is now in order, and is doing a fairly large business. As a seller of the flour, I can say that the mill is catching on with the people. The proprietor informed me only the other day that the reports from Sydney as to the quality of the article he is sending down are very favourable indeed. The other mill is still in the same state as it was when I last gave evidence. I should like to say something with regard to the probable construction of a railway from Koorawatha to Grenfell, as against the construction of a railway from Young to Grenfell. The first advantage a line from Koorawatha to Grenfell is that it is the shorter and cheaper route. With regard to the question of freights, I may state that I had an opportunity of seeing the statement submitted by Mr. John Quayle Wood, and I think that statement is correct. It is a compilation from the official statement of the Railway Commissioners. I desire to state that the point at which the storekeepers have touched the railway system of the Colony has in the past been Cowra, and not Young.

In

T. Bembrick. In my opinion, out of 850 tons of store goods reaching the storekeepers of this town, not more than 25 tons came *via* Young from Sydney. I make this statement in order to impress upon you the fact that Young has not been the trading centre for this district. Of course statistics may show that more is actually received from Young, but the great proportion comes from Albury or Tumut in the shape of corn, and it sometimes suits us better to get it from there than from Sydney. Tumut is a corn-growing district beyond Young. I should like to say, as against that, that there may be considerable parcels coming from Sydney to Young. The parcels system is grouped every 50 miles, and Young and Cowra stand on an equality with regard to charges. There may be a large number of parcels sent in a year, but the weight is not great. I make this statement because it has been said that a considerable number of parcels are continually being sent from Young station to Grenfell. I believe the greater number of packages come by the mail train, and as the mail train does not charge for actual mileage it is a matter of convenience as to whether a storekeeper has anyone going over to Young for them or otherwise. It is a matter which does not benefit the receiver or the railway. For instance, if I have a man going to Young to-day or to-morrow, and I want a parcel brought up, it perhaps suits me to order it to Young; but the charge is the same to me. As a business man who takes an interest in the progress of the district, I should like to state that I firmly believe that the halves system, which is largely in operation in this district, has come to stay. Even comparatively small men who farm 300 or 400 acres are beginning to see that as they have cattle and sheep and other business to look after, it would pay them as well to give the farming to others. I believe that the halves system will keep on increasing every year. With regard to implements and that kind of thing, my prospects for the coming year are 100 per cent. better than they were this time last year—I refer to future orders. I have already on my books fifteen prospective orders for reapers and binders alone, and this time last year I had not more than two.

231. When you gave evidence on the proposed railway from Condobolin to Euabalong you stated that the rate of road carriage from Cowra to Grenfell ranged from 25s. to 27s. 6d. per ton, and that you had paid as high as 35s. and 40s., and as low as £1;—is that statement correct? The bulk of the goods are now coming from Cowra at 20s. per ton.

232. What is the rate from Young? I can only speak in regard to flour and corn, and the rate for them is the same.

233. Is there any material difference in the character of the roads? No; the Cowra road is the best because of the chance of getting loading back. There is no certainty of a man getting a load from Young unless one has been specially procured for him.

234. *Chairman.*] How far from Grenfell towards Young do you supply stores of any kind? The farthest regular customers I have are 14 miles on the Young road. In my opinion, the Tyagong Creek is the division between the trading area, which at present belongs to Grenfell. The distance from Grenfell to the Tyagong Creek is 11 or 12 miles. Young is accustomed to trade over 20 miles, and the residue is traded over by Grenfell. Of course, we might get nearer Young south-west, and perhaps south-east.

235. If a railway were constructed to Grenfell, how far would you trade then? I think our area would be increased.

236. You think, then, that if the railway were in Grenfell you would fairly well split the difference between Young and Grenfell? Yes.

237. In other words, you would increase your area 4 miles? Yes.

Steel Caldwell, pastoralist, Lower Belabla, sworn, and examined:—

S. Caldwell. 238. *Mr. Clarke.*] I believe you gave evidence before the Sectional Committee sitting here on the 19th October, 1897, in reference to the proposed railway from Condobolin to Euabalong? Yes.

23 Feb., 1898 239. Have you had an opportunity of seeing that evidence? Yes.

240. Is that evidence correct? Yes. I wish to incorporate it in my present evidence. It is as follows:—

Chairman.] How long have you been in this part of the country? About forty years.

What is the area of your holding? Including Crown lands, about 20,000 acres.

You use it principally for grazing? It is principally under sheep, but we have some cattle and horses. I am carrying at the present time 12,000 sheep, 100 head of cattle, and about 40 horses.

What is the average carrying capacity? The average, taking good and bad seasons together, would be about one sheep to the acre.

You are acquainted with the proposal to construct a line of railway from Condobolin to Euabalong? Yes.

You have formed an opinion as to the ultimate destination of that railway? Yes; I think that it must go on to Hillston.

Do you think a better route to Hillston might be adopted? Yes; but I should say that I am not thoroughly acquainted with the Condobolin and Euabalong country.

You wish to point out some advantages to be derived from the construction of a line in this direction to Hillston? Yes.

Will you give the Committee some reasons for the construction of a railway in this direction? This district is now languishing from the want of a railway. We find it next to impossible to make grazing alone pay. All the land-owners in this neighbourhood are anxious to embark in farming, and we are positive that fully 20,000 acres would be under crop here in the first season after the construction of the railway. I should like to direct the attention of the Committee to the fact that the line would pass through a splendid wheat-growing land. Where alienated it is held by men who are anxious to turn their holdings into farms. In the next place there is an absence of all engineering difficulties, and the low cost at which the line could be constructed must also be considered. For instance, there is plenty of suitable timber available, and there is also an abundant supply of good water which would be easily obtainable along the line. The country is next to a dead level, and during a wet season the roads are impassable. It would cost as much to make them as to construct a railway.

Then again, our position as producers and employers of labour cannot possibly advance in the absence of a railway. There are 74,000 acres of Crown land, including timber reserves, directly on the proposed line between Bimbi and Williams' crossing. There is a large area beyond that which would be thrown open. It is intended to crop 5,642 acres in the district during the present season, and, except under adverse conditions, there would be 2,631 bales of wool to go away from the district within a radius of 8 miles of the line. There would be also an annual output of 37,950 fat sheep and 1,700 head of fat cattle.

Have you any of your land under cultivation? 100 acres.

How long have you been cropping it? I have cropped only 40 acres within the last ten years.

Does your land grow good crops? It has grown as much as 13 or 14 bushels to the acre. I often stripped for grain and cut a portion for hay.

Has the land been under continuous crop for ten years? Not continuously.

Can you rely upon a crop every year? I think so, if it is put in early. I have never been disappointed in a crop if it has been put in in April.

The April rainfall may be relied upon to produce a crop? Yes.

The seasons in which the crops fail would be exceptional? Yes.

Are there any settlers in this locality? Yes. The majority of them have the maximum area allowed in the Central Division—2,560 acres.

The

S. Caldwell.

23 Feb., 1898.

- The land about here is exceptionally good for fattening? It is.
 And in your opinion it is also suitable for agriculture? Yes.
 Do you think the farmers in this locality could pursue mixed farming with benefit? Yes.
 I suppose that if there were a railway here they would also rear fat lambs and sheep for market? Yes.
 You have found it advisable to combine agriculture with pastoral pursuits? Yes.
 But your distance from market has prevented you from cultivating extensively? Yes.
 You think that any available land would be greedily snapped up if there were a railway here? Yes. I think everyone who has not got land here would take some up. It is taken up already directly it is available. I know of several persons now who are anxious to obtain land here.
 Would a railway at Grenfell be of any service to this district? To a portion of it.
 How far is it from Grenfell? Twenty-two miles, and from Young, 32.
 Young is your nearest railway-station? Yes.
 What kind of a road is there? There is a bad road. It is dead-level country from here to Young. You may call the road bad up to within 7 miles of Young. From that point the road has been made.
 For what distance to a railway can produce be advantageously carted? I believe something over 20 miles.
 I suppose the settlers would be served by a railway through this district in proportion to the area they hold? Yes.
 What area would support a settler who followed farming alone? Not less than 540 acres.
 All the available land between here and Grenfell has been taken up and is fairly well stocked? Yes.
 Is the "halves" system followed at all in this district? It has been attempted, and it would have been carried out this year had the season been favourable. I intend myself to give out a number of acres on the "halves" system. The land has already been prepared.
 Do you think land here could be farmed profitably on the "halves" system if it were necessary to convey the produce by road to Young? I do not think so.
 Is the whole of the land between here and Grenfell suitable for agriculture? It is.
 Is any of the Bland country suitable for agriculture? The higher portion would be.
 The soil upon the lower-lying portion would be too heavy? Yes; although I understand that a great portion of the country is similar to the Berrigan country.
 Do you know the surveyed country from Grenfell to Wyalong? As far as Bland Creek.
 How far from Bimbi would the line pass? It would pass through Bimbi.
 Is the country between this point and Back Creek liable to inundation? Not to an extent which would jeopardise a railway. The creek overflows its banks in places.
 Does the Back Creek also overflow? No; it is swampy in parts, that is all. There is no serious overflow.
 You have not seen any flood in this district sweeping everything before it? Nothing except watercourses, which sometimes injure our fences.
 With a knowledge of the district extending over forty years, you can give us some information as to the floods on the Bland. For instance, how long has traffic been suspended in consequence of floods on the creek? The traffic would not be suspended except at the creek itself. It may have been suspended for three or four days while the water has been subsiding. I have not known it to be suspended a week.
 Is the creek bridged? At Morangarell, Grogan, and Marsden.
 Can the creek be crossed at time of flood? Yes.
 Can you get to the bridges? Yes, unless you are intercepted by watercourses.
 Sometimes the water prevents you from getting to the main creek, but in no case have you known traffic to be suspended for longer than a week? No, I have not.
 What does it cost you here to prepare the land for the plough? It would cost from 12s. 6d. to 15s. per acre to properly clear land which has been already ringbarked. It would cost £1 an acre to clear green country.
 A good deal of the country here is open plains? Yes.
 The bulk of the timber country is ringbarked? Yes.
 Is the district progressing? It is at a standstill at the present time, I think, for the want of railway communication. We want to embark in farming.
 From that point of view a railway would materially assist those who are already settled on the land? Yes; and it would have the effect of giving a vast amount of employment.
 There would be employment for a large number of men in clearing and fencing, and in doing what may be necessary to render the land fit for the plough? Yes; and there would also be employment in connection with the "halves" system.
241. Have you any further evidence to give? No; but I have some statistics, which have been collected as follows:—The following statistics, showing the number of land-owners of Bimbi, have been collected by the Bimbi Railway League, and not by the Grenfell League, viz.:—Number of holders, 41; area cultivated, 3,300 acres; number of fat sheep sent to market, 35,519; number of cattle, 1,764; number of bales of wool, 1,075.
242. I believe that farming is carried on between Grenfell and Koorawatha, and between Grenfell and Young, on a pretty large scale? Yes.
243. Are any operations besides wheat-growing being carried on? Yes; the land is being cleared for the purpose of bringing it under cultivation.
244. Is farming carried on to a great extent under the halves system? Yes; not so much in the district from which I come as in the Grenfell district.
245. I believe a good deal of farming is carried on by small settlers? Yes.
246. Can you say which is the better system of farming? I should say the halves system.
247. Why? Because a larger area can be put under cultivation.
248. Does the system of farming on halves require so much capital to work the land? No.
249. Would there be any increase in the farming operations of the district if the proposed line were constructed? Yes, a large increase.
250. It has been stated in Sydney that about Grenfell there is an area of about 35,000 acres under cultivation; do you think that statement is correct? Yes.
251. With railway communication do you think a larger area would be put under wheat? Yes; larger areas are now being prepared.
252. Which route do you think would be in the interests of the people of this district and general public? The Koorawatha route.
253. Why do you prefer the Koorawatha to the Young route? Because it is more direct, and nearer to our markets—Bathurst and Sydney.
254. Where is the greater portion of the wheat grown in this district sold? In Sydney, I believe.
255. Is any sold at Young? Yes, large quantities have been sold at Young.
256. Does any go to Bathurst and Cowra? Yes, I understand so.
257. Has not the bulk of last year's wheat, for instance, found a market at Young? Large sales have been effected to the Mill Company there, which is near and convenient, and a market to hand. I understand, however, that the quantity which has been sent there this year is limited.
258. Where has it gone? It is still in stock, or has gone elsewhere.
259. Is there a good road from here to Young? Yes.
260. Do you think there will be more under crop throughout the district this year than there was last year? Yes.

- S. Caldwell.
23 Feb., 1898.
261. More especially, I suppose, in the district in which you reside? Yes.
262. You have stated that the halves system is beneficial even to the small farmers? Yes, where they cannot work their own holding.
263. Do you know how many men are employed on the large areas on the share system, in comparison with the number employed when the land was held as sheep and cattle runs? Fully 20 or 30 to 1. Take landra, Brundah, and Warrangong, for instance.
264. How long have you been wheat-growing? Only during the last twelve months.
265. Are you working on your own account? Yes.
266. How did you employ your time and energies previously? Principally in sheep-farming. I have made several attempts on the halves system, but many people think it too far from the railway—35 miles.
267. Do some of the smaller farmers in the district in which you live work on the halves system? Not in that district.
268. Do you think the halves system will induce people to come here from other parts of the Colony? Yes; it has already induced people to come from Victoria and other places.
269. *Chairman.*] You contend that the Bimbi district would be better served by a railway station at Grenfell? I do.
270. How did your wheat turn out this year? Twelve bushels to the acre, and it was not a good season.

Hugh Gault, farmer and grazier, and saw-mill proprietor, Bimbi, sworn, and examined:—

- H. Gault.
23 Feb., 1898.
271. *Mr. O'Connor.*] I believe you gave evidence before the Sectional Committee on the proposed railway from Condoblin to Euabalong on the 9th October last? Yes.
272. Do you wish to have that evidence incorporated in your evidence to-day? Yes. It is as follows:—
Chairman.] You desire to give some evidence as to the timber resources of the district? Yes; I did not hear the other witnesses mention the timber industry here. There are 52 square miles of timber reserve on the Weddin Mountains. It was laid out, I think, as a State forest.
Where do you send your timber? To Young; or I sell it locally.
Is there any great quantity of timber on the reserve you speak of? The colonial pine has been pretty well cut out of it; but there is a great quantity of ironbark along the foot of the Weddin Mountains.
Would it be suitable for railway sleepers? Yes.
Is it being cut out? Yes; a number of young trees, which are easy to split, have been cut out on the other side; but the trees on this side are, some of them, 5 and 6 feet through.
They are practically too large to handle? Yes.
Is this ironbark forest of any extent? Yes; it runs about 8 miles along the mountain on each side, and is about 2 miles wide at the bottom.
Then any quantity of timber would be available for sleepers? Yes; but the introduction of vertical saws would be necessary.
Would a railway give you any additional market for your timber? Yes; hardwood is largely used in Young, and they can get it cheaper there than we can send it to them by road carriage—32 miles. Nearly all the hardwood used in Young is obtained from Sydney. I sent some timber from here to Wyalong when the field first broke out.
You think that a railway would bring you additional business? Yes; I could sell timber a great deal cheaper than it is being sold at the present time at several places. I sent some timber last summer to within 8 miles of Wyalong, to the Back Creek station, cheaper than they could get it in Wyalong.
273. Is there anything new which you desire to tell the Committee? On the former occasion I merely touched on the timber industry of the district.
274. Do you know the route of the proposed line from Koorawatha to Grenfell, and the survey from Young to Grenfell? I know more about the "white line" than the Koorawatha line.
275. What is your opinion about it? The "white line" runs almost parallel to the Cowra line for a certain distance out of Young. I should like to see a cross line. I think we ought to open up fresh country. I strongly favour the Koorawatha line. There is any amount of Government land for settlement in the Grenfell country.
276. Would you rather draw to Young from Bimbi or to Grenfell? I would rather draw to Grenfell.

Duncan Angus Cameron, manager, New Zealand Land Association's Pinnacle Station, sworn, and examined:—

- D. A. Cameron.
23 Feb., 1898.
277. *Mr. Fegan.*] Where is Pinnacle Station? Sixteen miles north-west from here.
278. To what use is the station put at present? It has always been used for pastoral pursuits purely, but we have got a great deal of land cleared ready for wheat-growing.
279. Have you any idea of letting the cleared land on the halves system? It has been cleared for the purpose of share farming.
280. How many acres have you cleared? There are 1,000 acres now ready for the plough.
281. Have you drawn up any conditions under which you intend to work the land? Yes.
282. Have you a copy of them with you? No; but I have been a party to an agreement which has been drawn up by Mr. Wood and Mr. Greene.
283. How many acres have you altogether? 32,500, including 20,000 acres of secured land, and the balance leasehold.
284. How many sheep have you been accustomed to run upon it? Over 30,000, but we have lost a great deal of land since the new Act came into force, and now we shear about 25,000 sheep. We carry about a sheep to the acre on the cleared land. It is highly-improved country.
285. Was the land cleared under your supervision? Yes; about 800 acres.
286. What did it cost per acre to clear it? About 10s. per acre; that is clearing it 10 inches deep. That is only the cost of clearing.
287. What would it cost altogether from its virgin state? Not under 15s. or 18s.; £1 at the outside.
288. How far are you from Young station? Forty-eight miles.
289. You are further away from any connection by the Young route than you would be by the Koorawatha route? Undoubtedly.
290. Therefore the construction of the line interests you considerably on account of its bringing you nearer to market than would the other line? Yes; it is a nearer connection with the seaboard, and a line from Koorawatha to Grenfell would open up the western markets as well.

291. Have you had any applications for the 1,000 acres of land which you have cleared? I have only succeeded in coming to terms with one applicant this year, for 150 acres.
292. Of course, the cleared land will be useful, even if you do not get more applications? Yes; it is greatly improved for sheep-carrying. I consider the money well spent in clearing it for grazing purposes.
293. How do you get the applications? I have advertised for farmers. I have had many applications, and after the men have inspected the ground they have been satisfied with it, but they have said they can get ground close to the railway, and therefore will not take it.
294. What is your nearest railway station? Forbes; 30 miles away.
295. Were the majority of the men who came to look at the land practical farmers? Yes.
296. Did they say where they could get land nearer to the railway? Yes; at Iandra and Brundah, and other places.
297. How many men do you employ as ordinary station-hands? Seven at present.
298. How many allotments will you be able to make out of the 1,000 acres? The largest area I would like at present would be one paddock of 500 acres.
299. Then, if a line is constructed to Grenfell, you will be able to divide the 1,000 acres into three or four paddocks? Yes.
300. Would you still have to employ the same number of men after letting that ground? Yes.
301. Do you think the construction of the railway would induce people to become permanent settlers in this part of the country? Yes.
302. And take up land on the halves system? Yes.
303. How long have you been in the district? Three years.
304. Can you compare the two routes? No; excepting to say that one is shorter than the other, and the carriage is cheaper. I think the western line—that is, the Koorawatha line—would suit the people best.
305. Why? Because it is 17 miles shorter.
306. Why do you prefer the Koorawatha route? Because I am nearer Sydney by the Koorawatha route a distance of 17 miles, and I have a chance of sending my produce by that line to Bathurst or to the seaboard. I can also get my goods hauled cheaper to Sydney by Koorawatha than by Young.
307. What was your clip last year? 250 bales. Our average clip is 300 bales.
308. What is your average rainfall? From '82 to '97, it has been 24 to 25 inches. Last year we had only 15 inches, and the year before that 18 inches, and the year prior to that 16 inches. The last three seasons have been the worst we have known since 1888.
309. Do you think the construction of the proposed railway will assist the sheep and cattle rearers to send fat stock to market? Undoubtedly.
310. What do you do with your fat stock? We try to sell them off the shears, and some we sell as stores. I may say we have 400 or 500 acres of land laid down in lucerne.
311. How does the lucerne grow here? I grows very well with us.
312. If the proposed line were constructed to Grenfell, would you extend your area under cultivation? Yes. I understand that the wish of the owners of the station is to persevere with agriculture until they get the whole of the available land under crop.
313. That is 20,000 acres? It would not be quite so much as that. Some of the land is not fit for cropping—(say) 15,000 acres.

D. A.
Cameron.

23 Feb., 1898.

John Smith Purdie, storekeeper, Grenfell, sworn, and examined:—

314. *Chairman.*] Do you desire to make any statement? There is no question that the Koorawatha line will suit Grenfell better, on account of the fact that goods can be landed cheaper *via* that route than the other. It is cheaper for Grenfell to get its produce *via* Cowra than *via* Young.
315. What is the road carriage to either place? Heavy goods pay 20s. a ton to Cowra. There is only one team on the Young road. The Koorawatha route would shorten the distance to Sydney, and the construction of the line would benefit all the people on the Cowra road. There is a good population 8 or 9 miles out. The Koorawatha route appears to me to be the most natural route to take the line, making a better division of the country.
316. Did you hear Mr. Bembrick's evidence? Yes.
317. Do you agree with him? I do.

J. S. Purdie.
23 Feb., 1898.

Thomas Goonan, farmer and grazier, Bimbi, sworn, and examined:—

318. *Mr. Clarke.*] Do you wish to make any statement as to which you consider the best line to make? The route is much shorter from Grenfell to Sydney *via* Koorawatha than it is *via* Young. The proposed line would greatly benefit the people of the district. That part of the country in which I live is very much handicapped by not having facilities to get produce to market.
319. To what market do you generally send? Young.
320. Are you engaged in wheat-growing? Yes; and Young has been the best market they had.
321. If a railway were constructed from Koorawatha to Grenfell, would you still continue to send your produce to Young? No; I should send it to Grenfell.
322. Why? Because I should be able to find a better market. It is also a shorter distance.
323. What market could you find better than Young market? I presume Sydney would be a better one.
324. Then you would be able to send your produce to Sydney, Young, or any other places where you could get the best price? Yes.
325. Would you send to the Bathurst district? Yes; I should send to where I should get the most money for my produce.
326. Would you have a market out towards Wyalong? Yes; a very good market.
327. The statement of the Railway Commissioners is to the effect that the loss on the proposed railway would be £2,000;—do you think, by the increase of cultivation of produce, a larger quantity would be available for carriage on the railways than there is at present? Most decidedly.
328. *Chairman.*] Supposing you had a lot of wheat at your place, would you prefer to draw it to Young or to Grenfell? It would be less trouble to draw it to Grenfell, because it is much nearer, and there is a better road.

T. Goonan.
2 Feb., 1898

Patrick Alfred Madden, farmer and grazier, Piney Range, near Grenfell, sworn, and examined:—

P. A.
Madden.
23 Feb., 1898.

329. *Mr. O'Connor.*] I believe you gave evidence on the 20th October last on the proposed railway from Condobolin to Euabalong? Yes.

330. Do you wish to incorporate that evidence in your present statement? Yes. It is as follows:—

Chairman.] What is the distance from Grenfell to your property? I am 17½ miles to the west. My land is close to the surveyed route to the north of the Weddin.

What is the size of your holding? 2,520 acres. I am carrying on mixed farming.

You are grazing sheep and cultivating? Yes.

What is the carrying capacity of the land? About two sheep to the acre.

You have improved that land by ringbarking and scrubbing? Yes; I can carry 3,000 sheep upon it year in and year out.

What area have you under cultivation? 140 acres this year; I cultivate wheat principally.

Are you able to get your wheat to market? I could not get it carted this year. I could have sold it at Forbes at 4s. a bushel, but on account of the season becoming so bad I could not get it carted. The wheat was left on my hands, and I have not sold it yet.

Do you grow any feed for your sheep? After the crops are off we put them on the stubble.

How long have you been farming? Twelve years.

Cropping the same piece of land year by year? Until this year I cropped the same piece of land.

Do you grow wheat all the time? Some years for hay and some years for grain.

What has been your average yield? About 12 bushels. It was not a very suitable piece of land for wheat-growing. Being a stranger in the district, I took the land to be similar to that at Albury, where the low flat land is always the most productive; but here I found afterwards that the rising ground was the best.

You had some farming experience in the Albury district? Yes.

Have you found the timbered land here, when cleared, good land? It is the best, I think. I am only getting an average of 12 bushels to the acre off my piece of land.*

It has been cultivated continuously, and it therefore offers good proof of the fertility of the soil? Yes.

Does it show any signs of exhaustion? No.

As a practical farmer, do you not think it would be advisable to give the land a rest occasionally? I intend to do so as soon as we can get enough land cleared to make up a certain output.

Is all the timber on your land ringbarked? Yes.

What did it cost you to get it ready for the plough? It costs me 15s. an acre. I have a contract let now for 100 acres.

What land have you under crop this year? 140 acres.

And you are clearing another 100 acres? Yes; it will be done before next summer. I am anticipating the construction of a railway to Grenfell.

If you were certain of a railway to Grenfell what area would you cultivate? I intend to put in 1,000 acres in 1900 if a railway comes here.

Are there many farmers in your locality who are similarly situated? Yes.

What would be the average size of their holdings? They would be about the same size as my own.

Do they, like yourself, carry on mixed farming? Yes.

They are also anticipating the construction of a railway in the district? Yes. I am not the only one who is getting his land cleared.

The area under cultivation is increasing in all directions? Yes, from year to year.

How would a railway to Grenfell benefit you? I should have so much shorter road-carriage. It is over 51 miles from my place to Cowra, and a little further to Young. I send down a considerable quantity of fat stock every year to Sydney, and I have to drove them to Cowra, which takes eight days. If the railway were at Grenfell there would be only one day's droving, and the sheep would not go off in condition as they do. Besides, it is no use sending less than 300 sheep to truck at Cowra or Young; you have to send a man in charge of the stock. I very often have 200 fat sheep, and eight or ten head of cattle, but it would not pay me to drove them the distance I have named.

If there were a railway here, a number, similarly situated to yourself, would assist in making up a load? Yes; I have spoken of it to several persons.

Is your country good fattening country? Magnificent.

Do you think that if there were a railway here there would be a big trade in lambs for the Sydney market? Yes. At the present time I have some as good as any in Australia; I do not think they could be fatter.

A railway, then, would assist and encourage small holders of land? Yes.

It would enable them to make more profit and to live more comfortably? I know it would in my case, and what a railway would do for me I suppose it would do for others.

What do you think of this district as compared with the Albury district? It is far ahead of it in stock-carrying capabilities, and for fattening, and it is quite equal to, if not better than it for cultivation.

Speaking of the locality to which you have referred, how much of it do you know? From 30 to 35 miles out from the town, running westerly.

The country is all of a similar character? Yes; it is part of the Bland.

You are on the edge of that country, and on the other side of the Weddin? Yes.

All the country round about you is as good as yours? Every bit as good as mine.

It amounts to this, that there is, in the district, a large area of grazing and fattening country of first-class quality, also a large area suitable for agriculture? Yes.

Do you know anything about the timber along the route? Yes; I can speak with authority as to that. The ironbark referred to by the surveyors this morning is some of the finest ironbark you could find. I am referring now to the ironbark on the forest reserve about 1½ mile south of the route surveyed to the north of the Weddin.

How far does that ironbark country extend? It is about 5 miles square. There is good pine there, but the saw-mill has cut out a good deal of it.

Is the pine large? Yes; I have some very fine pine on my land.

Would it be marketable? Yes.

Do you think that you and your fellow settlers would find a market for your produce in a westerly direction? We might do so at Wyalong. It was from this part, two or three years ago, that the principal supplies were sent there.

You think there is every chance of Wyalong being a permanent field? Yes.

And you would be able to send the population fat sheep and cattle? Yes; I am sure we could get a market there for stock.

Do you think you would be able to send them further west than Wyalong? No; and I would not rely upon Wyalong as a fat stock market, because the country there is pretty well pastoral.

You have confined your attention entirely to grazing and agriculture? Yes; I have grown a little lucerne, and potatoes only for my own use.

How did potatoes do? Fairly well. I know a number of men closer to the mountains who have grown splendid potatoes. Do root crops grow well here? Yes, and vegetables also.

How does the fruit grow? Splendidly; we shall have a splendid fruit crop this year.

What about grapes? Grapes grow splendidly, but you cannot get very much for them.

At what distance from a railway line do you think an agriculturist can carry on his occupation? He should not be over 20 miles distant.

You think the railway would materially increase the production of the district, and encourage many persons to go in for fruit-growing and dairying? Yes; this would be a splendid part of the country for dairying.

Do you think there would be an opening for a butter factory here similar to that on the South Coast? Yes; I believe there would be, about 30 miles out from here, on the Bland country.

The district is admirably situated for dairying operations? Yes.

331. Have you any further statement to make? No; I do not think I have anything to add. I do not think the rival route should receive any consideration, seeing that those whom it would benefit are within 20 or 25 miles of a railway already.

332. How long have you been in the district? Twelve years.

333.

333. How many miles are you from Young? Fifty-two, and $17\frac{1}{2}$ from Grenfell.
334. Do you know the Koorawatha to Grenfell route? Yes.
335. Do you know the country between Young and Grenfell? Yes.
336. What do you think of the route of the proposed railway from Koorawatha to Grenfell, and the survey from Young to Grenfell? Certainly the Koorawatha line would be a lot better for me, because it means less carriage for all time, and cheaper fares. I truck a good many sheep to Cowra and send my wool there; it is 3s. 9d. a ton cheaper from Cowra. I have trucked sheep from Young when I thought the road was better for me to go there with them, and they cost me 7s. 11d. more a truck from there than from Cowra.
337. If there were a line between Koorawatha and Grenfell how would you send your produce? Undoubtedly by the western line.
338. Would it be a great advantage to you and to many others if there were a railway from Grenfell? Undoubtedly. I do not think any consideration should be paid to the rival route.
339. What is chiefly cultivated in the district in which you reside? Wheat. The people have gone in for it more strongly during the last year or two than formerly.
340. Do you think the construction of the proposed line would increase the productiveness of the district? Yes.
341. How many acres do you hold? 2,520.
342. How many acres have you under cultivation? I am putting in 250 acres this year; last year I had 140 acres under cultivation.
343. If the proposed railway were constructed, how many acres would you put under crop? I would go on until I had 1,000 acres.
344. Would your neighbours also put more land under crop? They would.
345. Is the line between Koorawatha and Grenfell specially adapted to wheat-growing? Yes; I do not think there is any better to be found.
346. What was your production last year? Fifteen and a half bushels to the acre.
347. How long will the land stand cultivation of wheat? I have been cultivating it with wheat for the last twelve years, and I have had a good crop every year.
348. Is equally good land held by others? Yes; when the Railway Commissioners were in the district they said they had not seen better country during their travels.
349. How far are you from Bimbi? Nearly 20 miles north.

P. A.
Madden.
23 Feb., 1898.

Michael McCue, farmer and grazier, Woodlawn, sworn, and examined:—

350. *Mr. Fegan.*] Where is Woodlawn? Eight miles to the west, between Grenfell and Bimbi.
351. How many acres do you hold? 740 acres under conditional purchase.
352. Have you cultivated any of your land yet? Yes.
353. How many acres? Where I am now, I have only got 120 acres in; but I have not been there long.
354. How long have you been there? Eighteen months. I came from the boundary between Brundah and Landra.
355. Was that good country? Yes.
356. Equal to what you have now? Yes.
357. Did you farm there? Yes; I grew wheat, potatoes, and other things.
358. Why did you give it up? Because there was no more land available there. I sold out in order to get more.
359. How many acres had you under crop last year? 160.
360. What was the result? About 10 bushels to the acre; but it was a very dry season.
361. How many sheep do you graze? About 900. I have two farms.
362. How many acres have you under crop on your present holding? Sixty-five acres, and I have 900 sheep.
363. How many acres of your present holding do you intend to put under cultivation? About 500.
364. Does wheat-growing pay better than sheep-farming? Yes, a long way.
365. Where is your nearest railway station? Cowra.
366. Do you carry your produce there? I have to pay carriage.
367. What do you pay? This year I cannot get carriers to deliver at all; but I have to pay 1s. per bag, and sometimes 10d. per bag.
368. For a distance of how many miles? Twenty-six.
369. How much have you ready for market? 200 bags.
370. Do you offer as good a price for carriage as any other farmer in the district? Yes, just as good.
371. And yet you cannot get your produce to market? No; I believe a good deal of that is due to the fact that there is no feed or water on the road.
372. Do you know the proposed route and the rival route of railway? Yes.
373. Which do you favour? The one from Koorawatha.
374. For what reason? In the first place, I think there are less engineering difficulties on the Koorawatha route than on what is known as the "white line." There are only one or two little creeks. On the "white line" there are a number of deep creeks, and there would have to be a good deal of cutting. Besides that, the proposed line is shorter. I may state that from where I am now I have to carry 40 miles to Cowra. The construction of the proposed line would bring me within 8 miles of railway communication.
375. Have you tried any fruit-growing since you have been in the district? Yes, and it has done fairly well.
376. Do you think that, if the line were constructed, so much land would be put under cultivation that the railway would soon give a fair return? There is no doubt of it. If we had a railway there would be three times as much land under cultivation.

M. McCue.
23 Feb., 1898.

Alfred Shackel, storekeeper, Grenfell, sworn, and examined:—

- A. Shackel. 377. *Chairman.*] Where do your goods come from? Cowra.
 23 Feb., 1898. 378. Have you heard the evidence of Mr. Bembrick and Mr. Purdie to the effect that out of 800 to 900 tons of goods received by the storekeepers in Grenfell, not much more than 25 tons came from Young? Yes.
 379. Do you agree with that statement? I think it is a fair approximate estimate. The reason of goods coming *via* Young is that Young is shown by the freight book to be the nearest station to Grenfell, whereas such is not the case. I may add that there are squatters who trade with Sydney firms direct. They send their wool to Sydney and get their supplies, and, of course, that is a considerable item. A large number of squatters and farmers go for their goods direct from here to Cowra or Young.
 380. How far south do you supply goods towards Young? I have some customers 16 miles on the road.
 381. Mr. Bembrick gave the Tyagong Creek as a fair trading limit from here? Yes; that is a fair trading limit. All the people between the Tyagong Creek and Grenfell come to Grenfell, but individual storekeepers may have individual customers further along.
 382. You believe the Tyagong Creek is a fair trading limit? Yes.

Ralph Halls, storekeeper, Grenfell, sworn, and examined:—

- R. Halls. 383. *Mr. Clarke.*] I believe you were examined on the 20th October in regard to the proposed railway from Condobolin to Euabalong? Yes.
 23 Feb., 1898. 384. Do you wish to have your evidence given on that occasion incorporated with your present evidence? Yes; it is as follows:—
Mr. Fegan.] How long have you been resident in the district? About thirty-eight years.
 You have seen the district grow into a town? Yes.
 I suppose it was merely a gold-digging when you came here? Yes.
 You are well acquainted with the requirement of the town and district in the matter of carriage? Yes.
 What is the carriage in your own case? About 300 tons a year approximately—some years more, some years less. 800 tons of goods are brought to the town a year, to say nothing of the goods taken to people outside—pastoralists and others who get their goods direct from Sydney.
 You use the Cowra railway station? Yes.
 Why do you not take advantage of the railway station at Koorawatha? It is not much nearer, and there is a better road to Cowra. There is a difference in the trainage.
 I suppose also that Cowra being a fairly large town the teams can get back-loading more frequently than at Koorawatha? Quite so.
 Have the people of Grenfell ever requested that better road accommodation should be given them to Koorawatha? I do not think so.
 Do you buy wheat from the farmers? Yes; last year I bought nearly 2,000 bags for gristing and seed supply. We generally buy about that quantity every year. I have never sent any of it away from the district until this year.
 Do you think there is a good opening for an enterprising man to open a mill here? Yes; there is no better opening anywhere in the country.
 The area under cultivation is increasing every year? Yes; there will be more this year, and I have no doubt that if the producers had a railway the area would shortly be doubled. I know a number of landowners who are prepared to cultivate larger areas next year. If a farmer at a long distance from the railway puts 500 or 600 acres under wheat, it takes him a good part of the year to get the grain taken away; I am assuming that he has to draw it 30 or 40 miles.
 What would you, as a business man, consider a fair distance for a railway from agricultural settlement? I should say from 15 to 20 miles.
 The construction of a railway would induce many other persons to come to the district to settle? I am sure of it. I know of some landowners who are preparing land for the plough for next year. They have little or no cultivation now, and they are 30 or 40 miles from a railway line. If they had a railway within a reasonable distance they would cultivate a great deal more than they are cultivating now. There is a great deal of trouble in getting the wheat taken away.
 Did you find any trouble in getting your 2,000 bags taken away last year? We have part of it this year. We buy the wheat and grind it, and sell it as flour.
 The greater part of the land in the district is freehold? A great portion is.
 Therefore, it would not be thrown open to settlers? Quite so. If the settlers have 2,560 acres they can combine pasture with agriculture. A number who are cultivating from 300 to 600 acres have as much as they can do to get their stuff away, they have to draw it so far.
 Cultivation would involve the employment of a larger number of men than are employed in grazing pursuits? Yes; and anyone who clears 15s. an acre from wheat is better paid than he would be by running stock.
 The settler must obtain a reasonable price for his wheat to do that? Farmers can profitably grow wheat here in ordinary seasons for 2s. 6d. a bushel. I know the circumstances of a good many farmers. They have to pay from 3d. to 4d. a bushel for the cartage of their wheat from the farm to the railway.
 Your evidence amounts to this:—that the bulk of the land being freehold, although a railway might bring a larger area under cultivation, it would not mean closer settlement? The whole of this district is agricultural. The climate, soil, and rainfall are all suited to the growth of wheat. The district has given the best averages in the Colony, taking fair seasons. The mining industry has gone down; still some gold is yet being obtained here.
 Has your business increased since 1891, or since wheat-growing was taken up so extensively in the district? Our business has not increased. The railway at Temora, Forbes, and Cowra takes away a certain portion of it. In mining matters nothing is being done, through the want of capital. At the same time I feel certain that some of the mines will be as good as ever they were. Several large mines here are sure to be worked at some future time; but they require capital. They cannot be worked without machinery.
 385. Where do you get your goods from? Cowra.
 386. Which of the routes do you prefer for a railway to Grenfell? The route from Koorawatha. It would be shorter, and there would be less haulage. It would cost us less money to send goods from Koorawatha than from Young.
 387. Is there a mill working at Grenfell? Yes; and there is also one idle. Until we get a railway we cannot compete with other mills.
 388. How far do you send your goods towards Young? Twelve or 15 miles.
 389. Would not wheat find a market in Grenfell even if the mills were working? Yes; there would be a market for wheat here. Millers could manufacture it into flour which they cannot do now on account of the extra carriage they have to pay for teams carting it to the railway.
 390. In any case, a railway from either place would increase the area to be put under cultivation? Yes.
 391. Would it increase trade generally? Yes.

Henry

Henry Fitch, miner, Grenfell, sworn, and examined:—

392. *Mr. O'Connor.*] Where is your mine situated? On O'Brien's Hill.
393. Are there any men working there now? Yes.
394. How long have you been in the district? Thirty-three years.
395. Have you been connected with mining the whole of that time? Nearly the whole of it.
396. What is your opinion of the proposed railway? In 1896 the Young O'Brien's, in which I hold interests, had 800 tons of stone at the surface, and we came to the conclusion that we would send 35 tons of it to the Clyde as a trial. It went 13 dwt. to the ton. The remainder, treated at the ordinary batteries here, went 7 dwt. to the ton. It would not pay us to send the stone to Sydney under these conditions, because the haulage by teams to Cowra cost 11s. 6d. a ton, and then we had to pay 16s. 6d. a ton from there to Sydney. The consequence was that we would rather lose the 6 dwt. than send the stuff way. At present we have two local batteries which are shut against any stone we may raise. At present there are two heaps of stone awaiting crushing, one at Homeward Bound and the other at Young O'Brien's, and we cannot get them tried, and we are doubtful whether it would pay to send them to Sydney. Our returns from Grenfell will, I think, compare well with the Victorian mines. If we had proper machinery here, which could get through a quantity of stuff, our mines would be in just as good a condition as those of Victoria. Directly we can go in for proper reefing, I believe mining in this district will revive, and will overtop anything in this Colony. The prospecting I am doing at present is done with my own capital. I and another have been prospecting for three years, and we intend to prove one mine, and when we do, I believe that the whole of Grenfell will be proved. If we had cheap carriage from here, and could get rid of our stuff, I believe the result would be a benefit to the Colony in general. In 1893, 1894, and 1895 we sent 60 or 80 tons of blanketings to Sydney, and the average return was 2½ oz. to the ton.
397. Which of the two routes of railway do you think would be the better? The Koorawatha route, because it would be the shorter, and give cheaper haulage.

H. Fitch.
23 Feb., 1898.

Ashby Frederick Osborn, Road Superintendent, Cowra, sworn, and examined:—

398. *Chairman.*] Does your district embrace Grenfell? Yes.
399. I presume your boundaries do not extend within municipal limits? No.
400. What is the length of the road from Cowra to Grenfell? 34½ miles from the Cowra railway station to the Grenfell Post Office.
401. How much metalling has been done on the Government road? 23 miles 18 chains. There are in addition 2 miles of metalled road within the municipalities, making a total of 25 miles 18 chains of metalled road.
402. Therefore there are from 9 to 10 miles of unmetalled road? Yes.
403. What would it cost to metal that extent of road? It will cost about £5,200 to form, metal, and blind.
404. What do you estimate it will cost to maintain a metalled road in this district? Ninepence per mile per annum.
405. What is the present condition of the road between Grenfell and Koorawatha, *via* Brundah? The first 5 miles are a good road, forming part of the metalled road to Cowra. The next 4½ miles of road are in a fair condition to Brundah village. Some portions of this are metalled. There are two bridges over the worst of the creeks. From there to Koorawatha, until you get close to Koorawatha, no road has been established.
406. What would it cost to construct that portion of the road between the turn-off of the Cowra road and Koorawatha? I estimate that it would cost £14,000 altogether. That is a rough approximation. The maintenance would cost £9 per mile per annum.
407. Have you any knowledge of the development of the country between Koorawatha and the turn-off to which you have referred? Yes.
408. Is the development of the country such as to necessitate the construction of a road if a railway is not made? Yes.
409. If a railway is not constructed should the £14,000 to which you have referred be spent? Yes, in my opinion it should, and soon.
410. Can you say anything of the through traffic to Koorawatha? No; I know there is a great deal of traffic; but I cannot state the quantity. The railway officials could do that. Of course, it has increased very rapidly during the last two years.
411. Can you express an opinion as to where Grenfell gets its supplies from? Yes, mainly from Cowra.
412. Have you any idea of the amount of traffic on the road from Cowra to Grenfell? I estimate it to be about 1,600 tons a year. It is heavy traffic. During the dry season last year there was far more traffic coming towards Grenfell than you would expect.
413. Does your district extend south towards Young? To half way to Monteagle.
414. Does it extend along the road from Grenfell to Young? No; but I have travelled the road.
415. Can you express any opinion as to the relative importance of the approaches to the railway. The Cowra road is more important.
416. Does the statement we have heard with regard to the supplies of the town also apply to the station supplies coming to the district? No, I think, to the stations between Grenfell and Koorawatha. I think their loading would come through Koorawatha.
417. What about the stations immediately to the north? Their loading comes from Cowra.
418. What about the stations south and west? Their loading might come from Young. I know there is a good deal of traffic into Monteagle and Young that way.
419. It is, I suppose, merely a question of road and distance? Yes.

A. F. Osborn.
23 Feb., 1898.

Patrick John Cleary, farmer and grazier, Fairview, sworn, and examined:—

420. *Mr. Fegan.*] How far is Fairview from Grenfell? About 20 miles due west.
421. What is the extent of your holding? 2,560 acres.
422. How many acres have you under crop? I had 60 acres under wheat last year.
423. What did you do with it? I have it yet; I could not get teams to carry it away.
424. How many sheep have you? 2,000.

P. J. Cleary.
23 Feb., 1898.

- P, J. Cleary. 425. Have you been able to get them to market? No, owing to the want of water on the road to Cowra.
 426. How many miles are you from Cowra? About 54.
 23 Feb., 1898. 427. Is that your nearest railway-station? Yes; Cowra and Young are about the same distance away.
 428. Have you been a great loser on account of not being able to get your stock to market? Yes; I was offered a good price for wheat, and could not get teams to carry it away.
 429. What were you offered for it? Four shillings per bushel.
 430. Do you regard that as a good price? Yes, it is a fairly good price for the season. I think it is about the average price for this year.
 431. Which of the routes of railway would suit you better—the proposed line or the “white line”? The proposed line.
 432. Why? Because we should be nearer to Sydney and we should have a market to the west.
 433. How is it you have only 60 acres under cultivation? I have 200 acres ready for this year.
 434. Do you think the construction of the proposed line will give an impetus to wheat-growing? Yes; I think all the country will be under wheat.
 435. Will you put more under wheat than you have at present? Yes.
 436. How many acres do you think you will be able to put under wheat in the course of time? About 1,000.
 437. Have you carefully considered what price wheat must bring to make it pay a little better than sheep farming? Yes, 2s. 9d. per bushel.
 438. If the price of wheat drops lower than that will it pay? It depends. If you have your own family to assist you it makes a great difference.
 439. But if you have not your family to assist you what then? I think a man can do with 2s. 6d. per bushel.
 440. How many sheep have you on your holding? About 2,500. I have run about one and a half sheep to the acre.
 441. Then sheep-farming will pay you better than wheat-growing if wheat goes up to 2s. 9d. a bushel? No; I think wheat will pay better.
 442. How much per pound would you get for wool? Last year I got 7d.
 443. What is the average clip? About 5 lb; that makes 3s. 4d.
 444. Do you not think that under these circumstances it would pay better to rear sheep? It depends. I got six bags of wheat to the acre last year, and it was a bad year.
 445. But the average in the district is about 12 bushels to the acre? It might have been last year, but I think it is more, as a rule. Twelve bushels is a low average.
 446. Wheat, then, if you have a market for it, pays better than wool? Yes, even if you only get 2s. 6d. per bushel for it.
 447. Do you think there is a desire on the part of those who are asking for a railway to put their land under wheat? Yes, I think the country will all go under wheat.
 448. Then, the Railway Commissioners can look forward to a large increase in the carriage of wheat? Yes.

William Richardson, grazier, Bogolong, sworn, and examined:—

- W. Richardson. 449. *Mr. Clarke.*] I believe you gave evidence before the Sectional Committee on the proposed railway from Condobolin to Euabalong? Yes.
 23 Feb., 1898. 450. Do you wish that evidence incorporated in your present evidence? Yes; it is as follows:—
 You are a grazier, residing at Bogolong? Yes; 5 miles west of Grenfell.
 You are acquainted with the proposal to construct a line from Condobolin to Euabalong? Yes.
 Do you know that country? Yes; I have travelled from Condobolin, *via* Euabalong, to Hillston. I had a station at Dundoo Hills for 8 years. It is 50 miles south of Condobolin. It is very droughty country, generally speaking.
 Would the railway from Condobolin to Euabalong be of any assistance to this district? Certainly not.
 You have come here this afternoon to advocate a route to Hillston which would serve a greater number of people? Yes.
 You are merely grazing? Yes. Up to last year I had 13,083 acres of secured land and a lease of 10,000 acres of Crown land.
 Up to last year you used all your holding for grazing purposes? Yes, except a small portion upon which I grow hay, and which is not worth speaking about. Seeing the success which Mr. Greene and Mr. J. Q. Wood have made of farming on the “halves” system, I made a trial of it last year in a small way. I put in 50 acres of wheat, and it gave me a return of 12 bushels to the acre. Encouraged by that, I put in this year 550 acres of wheat and corn—350 acres of wheat and 200 acres of corn. I have already arranged for the clearing of 1,000 acres of land for wheat this year, and if there were a railway to Grenfell I should continue to increase the area, because I estimate that 10,000 acres of my holding are fit for growing wheat. I should like to say that, commencing a mile and a half west from Grenfell, and following Mr. Little’s routes for a distance of 30 miles, taking a radius 10 miles to the north and south of the line, you will have an area of 380,000 acres; allowing for 80,000 acres of inferior land which you could not cultivate, you would have close to Grenfell an area of 300,000 acres of wheat-land which, I am sure, would be put under crop if a railway were constructed.
 Why do you include such a large area of inferior land? I include the Weddin Mountains. The country through Bogolong and Melyra is splendid for the growth of all kinds of fruit and vegetables. I have 5 acres of vegetables, and I have been told by Chinamen that they have grown there as much as 14 tons of onions to the acre. I should also like to point out that for several years back I have had a small number of different kinds of fat stock. Owing to the dry summer it has been difficult to get them to market. The whole of that difficulty would be avoided if there were a railway to Grenfell. I consider I lose on the sheep quite a shilling a head by having to drive them to Young or Cowra. They are both 38 miles from my place. If there were a railway here, no doubt a lot of people would go in for poultry. I understand that already some people have as many as 2,000 fowls, and I see no reason why the number should not be increased to 5,000 or 6,000.
 How deep have you to sink for water? Eighteen feet; but we sink to 23 feet, allowing ourselves 5 feet of water.
 Is it brackish? No; it is good household water.
 How does this country compare with, say, Merrigal? That country is inferior to this for carrying stock.
 What stock can you carry to the acre? After the land in this district has been ringbarked for several years it will carry in an ordinary season, from a sheep to a sheep and a half to the acre.
 Have you erected any rabbit-proof fencing? No.
 Have you gone to much trouble in dealing with the rabbits upon your holding? No; they are increasing, of course; but up to the present we have taken no steps to destroy them.
 Have you tried dairying? No; not at my place; but I know that the country is suitable for it.
 What vegetables have you grown? Peas, turnips, carrots, onions, radishes, lettuce, beet, cabbage, cauliflower, and potatoes.
 And you find that they grow very well? Exceedingly well. They grow splendidly with sufficient moisture. Last year I had Swede turnips in my garden so big that you could put only one into a fair-sized bucket.
 How many men have you employed on wages? I keep three men on the station the whole year—two for the purpose of boundary riding and to look after the sheep, and the other is a groom and milkman.

If

If you carry out your idea of putting so many acres under cultivation it will mean the employment of a greater number of persons? So much so that when my 200 acres were planted with corn I had as many as seven men employed with double-furrow ploughs. At the time of sowing the corn there were twenty men employed in ploughing, sowing and harrowing. That number would be carried on proportionately as the acreage increased.

What did it cost you to clear your land? In regard to the 200 acres to which I have referred, I first of all Yankee grubbed it. That is, I burnt all the timber off the ground and picked up all the sticks at a cost of 3s. an acre. After that was done I had to grub it fit for the plough to the depth of 10 inches. The total clearing cost me 9s. per acre. The timber was dead and had been so for a number of years. The contracts I am letting now have ranged from 10s. to 12s. an acre for 400 acres. As to the green timbered land, the ringbarking costs 1s. an acre; then every eighteen months it will cost you 9d. or 1s. an acre to remove the suckers and pine seedlings. If you cleared out the green timber at once it would cost you not less than £2 an acre.

Have you adopted the "halves" system? My farming is entirely upon the "halves" system.

You have seen that others in the district have made it a success, and you are following in their footsteps? Yes.

By the time you have your 10,000 acres under crop you will be employing a big staff of men? I must necessarily do so.

451. Has anything occurred to cause you to alter your views since you gave that evidence? No; excepting that the 1,000 acres to which I referred on that occasion is now almost ready for ploughing. I shall still increase my area under cultivation if we get a railway from Koorawatha to Grenfell. I intend to keep on until I get about 10,000 acres under wheat.

452. If a railway were not constructed, would you have the same inducement to clear more land? No. It is the anticipation of the coming of the railway which has induced me to do what I am doing.

453. Will you state why you prefer the Koorawatha line to the line from Young? It is shorter, and I would expect to get my wheat cheaper to Sydney.

454. How far from Grenfell is your present holding? Five miles to the homestead, but my land is within 3½ miles. The Grenfell railway station would be 3½ miles from my land.

455. Is there any other reason why you prefer the Koorawatha route? I should have a better chance of sending to the Southern line as well as to the Western line if we were connected with Koorawatha. Of course, if the line went from Grenfell to Young it would be a more expensive matter to get our produce to the Western line.

456. Do you go in for sheep-farming? Yes.

457. Do you consider that wheat-growing would give a larger return than sheep-farming? If the price of wheat were as low as 2s. a bushel, I am satisfied that wheat-farming would pay much better than sheep-farming.

458. Do you think it will go as low as 2s. per bushel? We have seen it as low as 1s. 9d.

459. Would it save you a considerable amount in carriage to forward it to Koorawatha instead of to Cowra? Yes. Another advantage would be that we would be able to get rid of small numbers of fat stock. When our sheep are the fattest during summer we have the worst weather for sending them to market. Five days on the road would, I consider, reduce their value 1s. per head.

460. Have you anything further to state? If we get the line from Koorawatha to Grenfell, I think it will eventually go further to the west, and that will give us a further market in that direction. If the line comes here, I believe 300,000 acres will soon be put under wheat, immediately to the west of Grenfell. I may add that I have at present thirteen furrows at work, and in another month I will have twenty-five at work. I employ three hands the whole year round looking after the station, and sometimes I keep 25,000 sheep. When we put our corn in last year we had twenty hands at work. At present I have thirty men grubbing, and the number of men I should employ would increase in proportion to the number of acres I should clear and cultivate.

George Cousins, Secretary, Homeward Bound Gold-mining Company, Grenfell, sworn, and examined:—

461. *Mr. O'Connor.*] Did you give evidence on October last on the proposed railway from Condobolin to Euabalong? Yes; as follows:—

Chairman.] Have you been long engaged in the mining industry? I have been interested in it six years.

You have a good knowledge of the Grenfell district? I have taken an interest in it ever since I have been here.

How long has the Homeward Bound Company been working? For the past six years.

Your ground is payable, I presume? We had at the beginning of the year four men employed, and at the beginning of the month seventeen. We have paid them £210s. a week since the beginning of the year.

Are you working the claim with wages men? Yes.

The mine has paid wages and you have a small balance to the good? Yes, this year. We are finding gold now at the 450-ft. level. It goes 15 dwt.; the previous crushing gave 25 dwt. There is any quantity of stone.

Is the reef well defined;—are there good foot and hanging walls? Yes.

There is every prospect of permanence? Yes.

Have you any idea of the mining leases held in Grenfell? Yes; in 1895 there were 15; in 1896, 25; and there are, in 1897, 30.

Have you any idea of the number of men employed on the field in 1896 and 1897? There were 100 in 1896 and 120 in 1897. They were not fully employed on account of water being required for crushing purposes last year and at the beginning of this year.

Can you tell us the yield of gold for the past few years? In 1895 the value of the gold was £3,578; in 1896, £6,978; and up to date in 1897, £6,656. The two first returns I obtained from the mining registrar, and the last from the banks which purchased the gold.

Do you know of any new developments in mining between here and Wyalong or between here and Koorawatha? Developments have been caused by the cyanide process; there are 750,000 tons of tailings awaiting treatment. One cyanide works are being erected, and the others are finished. The works just starting are on a very large scale. A company is just about to develop the Enterprise mine by working it in a more systematic manner than it has hitherto been worked. There has been hitherto a very primitive method of working the gold; there has been no machinery to develop the deep mines.

Is the stone of a refractory nature? It is.

The return of 25 dwt. which you have mentioned might be materially increased if you had the best method of treating the stone? I have no doubt that that would be the case. If we had improved machinery we should get a much larger yield from the Homeward Bound. We get 3,000 gallons a day, and we know that a great deal of gold goes away in the tailings. During the last year we supplied the whole of the cattle in the town with water.

Are there any working outside the town of Grenfell? Yes; there is the Pinnacle Reef, 25 miles from here to the north-west. It is employing now 70 hands, and is putting through the 20-head stamper 200 tons a week.

That is not the only other mine in the locality? There is the Ironbark; they have also a battery, and are employing twelve men; Sandy Creek is also being developed.

That is in the same locality? Yes, it is in the same belt. It is only about 6 miles from Grenfell.

Is the Pinnacle mine being worked by a company? Yes; but the Ironbark and Sandy Creek are being worked by miners on their own account.

There is a belt of gold-bearing country running through there? Yes; the whole district is gold-bearing.

What is retarding the development of the industry, do you think? The want of capital is undoubtedly one of the causes; it is perhaps the chief cause.

You

W.
Richardson.
23 Feb., 1898.

G. Cousins.
23 Feb., 1893

G. Cousins. You think the construction of a railway would perhaps assist the industry? It would help us a good deal. The claim I represent sent yesterday to Cowra 6 tons of concentrates; the road carriage cost us a great deal more than the railway carriage down to the Illawarra works. We could send down three times as much if we had cheaper transit.

23 Feb., 1898.

You think that if there were a railway here capitalists might be induced to pay the field a visit, and look round? Yes; the coaching is quite enough to drive any person away. I might also mention that lime is here in abundance, and in good quality. It is used locally now; but if there were a railway it might be used extensively. There is also some kaolin, which has been proved by the Mines Department to be the best in New South Wales. There are large deposits of that. I suppose that if there were a railway pottery works might be established here to advantage? Yes; on account of the good quality of kaolin. Our opinion of Grenfell is that it is similar to Adelong. It only requires capital to develop it; there is any quantity of stone in sight. There are large bodies of stone which are gold-bearing, and if it could be got out and crushed cheaply, I should say that from 8 to 9 dwt. would pay. With a 4-foot reef, which is the average width in Grenfell, it would pay handsomely. Now that the new cyanide process has come into use, we are hoping that speculators will turn their attention to Grenfell, and that something will be done to develop the field. If companies of that kind came here there would be a certain amount of coal and other mineral traffic upon a railway.

462. Have you anything to add? At the close of my former evidence I mentioned that there was a probability, if a railway came here, of our mines being developed by companies. The new cyanide works which were then about to be started are now being worked, and the Homeward Bound mine, of which I am the secretary, hopes within the next month or so to be developed in a systematic manner. We have no machinery on the mine at present, but in a month's time we hope something will be done. We are in communication with a firm willing to put up the machinery.

463. Is yours a public company? Yes, with local shareholders.

464. What is the capital of the company? £2,500. The first question we are asked by the people with whom we try to deal is "How far are you from a railway?"

465. Have you any knowledge of the two routes? I have been along the two routes, and I naturally favour the shorter one.

466. Do you think it would be more advantageous to this district to have communication with Koorawatha than with Young? Yes.

John Bolton, hotelkeeper and farmer, Bogolong, sworn, and examined:—

J. Bolton. 467. *Chairman.*] Where is Bogolong? About 5 miles from Grenfell.

468. How long have you been in the district? Thirty years.

23 Feb., 1898.

469. What will be the effect of a railway on the farming settlement of this district? The cultivation of wheat during the last few years has been greatly increased, and I believe that if we get a railway to Grenfell it will increase tenfold. The want of communication is a great drawback. I believe the railway will be beneficial to mining as well, and it will pay the Government too. In anticipation of the proposed railway being constructed clearing is going on all over the country.

THURSDAY, 24 FEBRUARY, 1898.

[The Sectional Committee met at the Court-house, Grenfell, at 10 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

JOHN LIONEL FEGAN, Esq.

The Sectional Committee further considered the proposed Railway from Koorawatha to Grenfell.

Thomas Edward Arnfield, proprietor of the Cyanide Works, Grenfell, sworn, and examined:—

T. E. Arnfield. 470. *Chairman.*] Have the Cyanide Works in Grenfell been established long enough to justify you in believing that they will be a success? Yes; their future is assured. I speak from local experience, and from my experience of the success which has attended the cyanide process elsewhere.

24 Feb., 1898.

471. What amount of material have you to work upon at present? About 15 tons, stock on hand.

472. How many tons of tailings have you got? About 105,000.

473. How much do you think there is in the field? 230,000 tons similar to what I am using are close handy.

474. What do you mean by close handy? Within 1½ miles of our works.

475. Whence are you accustomed to obtain your supplies? From Sydney, *via* Cowra.

476. What have you already obtained? Up to the time we suspended operations on account of leakage in the vats, we had obtained 50 tons.

477. What do you pay for carriage? Thirty shillings per ton from Cowra by road.

478. Do you find it cheaper to get your material from Cowra than from elsewhere? Yes.

479. Is it the cheapest way to approach the Grenfell district? Yes.

480. For what period do you expect your works to be in process? With our present quantities it will take us three years to get through; but if we obtain the quantities for which we are in treaty it will take us five or six years.

481. That is, presuming there is no further development of the district? Yes; working with the stuff above ground at the present moment.

482. Then if there be developments in Grenfell your operations are practically unlimited? Yes.

483. The material to which you have made reference was, until you came here, refuse? Yes; it was lying there for thirty years.

484. How many men do you employ? Forty, when in full swing.

485. Could you increase that number if you were able to obtain a larger amount of tailings with which to work? Yes.

486. Will you make a brief statement as to what you intend doing when the tailings are exhausted? Whilst mining is carried on we shall always be in a position to treat tailings, whether we purchase them or treat them for the public. We have a mining lease in connection with the plant, which we intend to develop later on, but one of the chief disadvantages up to date has been the distance of a railway-station from

from Grenfell. When in town, in the early part of this month, I spoke to Mr. Peacock, the Chief Secretary of the Victorian Government, and he regarded the fact that we had to cart our material such a great distance as a great detriment, and he thought there would be a difficulty in obtaining enough capital with which to work the mine. Of course, if at any time the railway comes to Grenfell, that detriment will be removed, to the advantage of the mining industry here; but under any circumstances we are pretty permanent, and have come to stay. The experience of other mining centres, both in New Zealand and South Africa, is that the cyanide process has revolutionised the low grade ores, and if they can get large quantities they can make them pay very well. It is the introduction of the cyanide process into South Africa which has brought about the present prosperity of the Rand. The low grade ores in Grenfell would all pay for treating, provided we had easy communication with Sydney by rail. We could then get our mining supplies at a cheaper rate. The charge of 30s. a ton from Cowra is a great handicap to the mining industry.

T. E.
Arnfield.
24 Feb., 1898.

487. What capital have you invested in your plant? £5,000.

488. That is exclusive of wages? Yes; our wage-sheet amounts from £90 to £100 per week.

489. Has the question of the easy obtaining of coal or coke any bearing on your works? Yes, it enters largely into our operations.

490. Whence do you get your coke? We have been getting it from the Bathurst Gas Co.

491. Have you any idea of the amount of coke you will require? From 2 to 3 tons a month. Of course, we use wood for the engines.

492. It is, of course, of value to a gold-mining field to be in touch with a coal-mining district, but with the large quantity of wood you have here it is not so vital as it would be under other circumstances? That is so.

493. What is the best approach to the Grenfell district from the railways of the Colony? Undoubtedly from Koorawatha. If material is taken to Young there is 30 miles further carriage and more expense.

Thomas Bryant, farmer and carrier, Cowra, sworn, and examined:—

494. *Mr. Clarke.*] Have you any experience of the share system, which has been carried on here during the last few years? Yes.

T. Bryant.
24 Feb., 1898.

495. Will you give the Committee any results you have obtained from that system as opposed to the old system of grazing? From the first crop of wheat I made £1 an acre. In the second year I made £2 an acre.

496. Then your experience of the system, so far, has been satisfactory? Yes.

497. What area of land do you possess? 191 acres. I have been working on halves with Mr. Wood for the last two years.

498. Do you think the system is one which operates fairly? Yes.

499. Has it opened up a large quantity of land which was formerly vacant? Yes.

500. Does it employ a large number of labourers? Yes.

501. More than under the old system of grazing? Yes.

502. Do you consider the halves system an advantage to the district? Yes; it increases the population, and brings people to the district from other places.

503. In what portion of the district are you engaged in carrying? From Forbes to Cowra; Blayney to Cowra and Condobolin.

504. Have you carried anything from Grenfell to Cowra? Only wheat during the last season.

505. What is the rate of carriage to Koorawatha from Brundah? One shilling per bag for wheat, or 3d. per bushel.

506. If you had a good road to Koorawatha could the wheat be carried more cheaply? Yes; but a railway would be preferable.

507. Do you think it would be necessary, in the event of the proposed railway not being constructed, to have a good metalled road? It will.

508. If you had a railway would you be able to find a market for your straw? Yes.

509. Is the straw of any value at present? No; it is a dead loss; it is generally burnt off.

510. If you could find a market for the straw would there be any stripping? There would not be so much stripping. There would be more cut. Of course, if anyone had a very large area he would not cut the lot.

511. Have you any straw for market this year? No; I used the stripper.

Henry Allsopp, miller, Grenfell, sworn, and examined:—

512. *Mr. O'Connor.*] How long have you been in business in Grenfell? Nearly four months.

513. Were you in the same line of business before you came here? No; I was a journeyman miller for eleven years before coming to Grenfell, and I was for ten years a miller in England.

H. Allsopp.
24 Feb., 1898.

514. What is your opinion of the district for wheat-growing? I do not think it could be beaten.

515. Do you know the route of the proposed railway? I cannot say I know it; but I have been over it, and I consider it the best we could have.

516. What advantage would it be to you? It would be a great saving, in the first instance, in freight. The capacity of the mill is from 40 to 50 tons weekly, and I suppose one half or more of that would be sent away on trucks. All the surplus which is not consumed in the district would go to Sydney.

517. You have commenced business, I suppose, in a comparatively small way? Yes; we are not running night and day yet, but we intend to do so if we get the railway. At present we can scarcely compete with other mills, on account of the heavy carriage from Grenfell to Cowra. We never send anything to Young. The line would not only benefit me, but also a great many inhabitants of the district, including the growers. For instance, there would be a lot of wheat sent here from the Koorawatha side to be ground, and it would go back in the shape of flour, bran, and pollard.

George Henry Greene, Esq., M.P., Iandra, sworn, and examined :—

G. H. Greene,
Esq., M.P.

24 Feb., 1898.

518. *Mr. Fegan.*] Do you wish to supplement the evidence you have already given before the main Committee? Yes.

519. With reference to your agreements with your tenants, do you allow your tenants any room for stock? Yes. The conditions are specifically laid down, and it will be found that special arrangements are made to give their working stock access to grass and water. I hand in a copy of the agreement under which Mr. Suttor, Mr. Wood, Mr. Cameron, and myself work :—

ARTICLES OF AGREEMENT made the _____ day of _____ in the year one thousand eight hundred and ninety- between _____ of _____ in the Colony of New South Wales grazier (hereinafter called landowner) of the one part and _____ of _____ in the said Colony farmer (hereinafter called tenant) of the other part, witnesseth as follows :—

1. The said landowner agrees to let and the said tenant agrees to take on lease for the purpose of wheat-growing all that farm consisting of _____ acres or thereabouts on the _____ estate owned by the said landowner for a term of _____ seasons to be computed from _____ day of _____ 189 _____ at the rent of one-half of the entire crop harvested subject to the provisions of clause 12 of this agreement such rent to be payable annually during or immediately after the harvest and subject to the conditions following that is to say :—

2. That the said tenant shall not be entitled to erect any residence or other structure on or in connection with the said farm without first obtaining permission in writing from the said landowner nor shall the tenant be entitled to graze any stock on the said farm or elsewhere on the said estate except such horses as may be necessary for putting in or taking off crops and then only while farming operations are in progress.

3. That the said landowner shall be entitled to hold and depasture his stock on said farm at all times during which it is not under actual cultivation.

4. That said landowner shall during each season provide the said tenant with seed-wheat not exceeding one bushel per acre free of cost for the area the tenant has under cultivation such seed-wheat to be deliverable wherever the seed-wheat may be stacked on the estate and the tenant shall keep such seed-wheat properly protected from the weather and from any stock that may be in the neighbourhood.

5. That the said tenant shall commence ploughing with his full plant at or about the _____ or as soon thereafter as the ground should be workable except in the case of new ground about which special arrangements may be made and no crop may be sown after _____ and the tenant shall cultivate the whole area hereby let.

6. The said landowner shall give said tenant access to such grass and water as may in the opinion of the said landowner be necessary and available.

7. That said tenant shall cultivate the entire area of the cultivable land to a depth of not less than 4½ to 5 inches in a good and husbandmanlike manner and shall thoroughly harrow the land at least twice and keep the same in proper order and condition. That he shall have sufficient plant of good quality and to the satisfaction of the landowner to harvest the crop expeditiously so as to save loss of grain and that he shall commence to harvest the moment the crop is ready. The term harvest shall mean the proper stripping or reaping and threshing cleaning stacking and placing the produce in the best possible marketable condition.

8. That the said tenant shall remove from the ground all roots sticks and broken wires which the plough may unearth.

9. That the said landowner shall at all times have access to said farm and in default by the said tenant in properly cultivating it keeping it clean or harvesting any crop or if the said tenant shall not use due care diligence and dispatch in any of these matters the said landowner may if he deem it necessary and at the expense of the said tenant do all such things as he may think fit for proper cultivation keeping clean and harvesting the crop or crops and upon the crop or crops being harvested may sell the same and out of the proceeds first repay or reimburse himself all expenses incurred in respect thereof and shall then retain the rent due and shall thereafter account to the said tenant for his share if any of the said proceeds calculated on the basis hereinafter mentioned.

10. That before harvesting any crop the said tenant shall notify the landowner of his intention to do so in order to give him an opportunity of protecting his interests in respect of the crop and under no circumstances shall any of the crop be removed without previous sanction by the landowner.

11. That at each harvesting season the said landowner shall supply the tenant with sufficient bags and twine to meet the requirements of the landowner's portion of the crop.

12. That in the event of this agreement being fully complied with by the tenant he shall be allotted as a bonus the surplus over _____ bushels per acre while up to that amount the division shall be equal.

13. If within the time herein provided the tenant has not sown the whole of the land hereby agreed to be leased or if in the opinion of the said landowner the said tenant will be unable to sow the whole of the said land hereby leased within the time hereby provided the said landowner shall be at liberty to at once resume possession and relet or otherwise deal with the land not so sown as aforesaid or which in the opinion of the said landowner the said tenant will be unable to sow within the said time hereby provided.

14. That in the event of any addition being made to the area under lease to said tenant every such addition shall be deemed to be one farm with the original for all purposes of this agreement excepting only in the respective periods of currency.

15. That the tenant shall if required by the landowner in every year of the tenancy in due season cut for hay and properly gather in and securely stack the whole of that portion of the crop of wheat produced on the outer part of the said farm so that there may be a thoroughly clear strip of land one half chain wide round every portion of the said crop of wheat which shall be left standing after the cutting of such hay and in the centre of the strip so cut shall if required plough a strip at least twelve feet wide. Of the hay so made the tenant may keep two-thirds and the landowner one-third or the tenant may take the whole of such hay at the same value per acre as the remainder of the farm shall average under wheat. In the case of adjoining tenants it will be allowable to make any arrangement mutually which will give same protection to the crops.

16. In case the said landowner shall make any *bond fide* advances of money or goods to the said tenant or any moneys become due by the said tenant to the said landowner for agistment of stock or otherwise the said landowner shall have all the rights and privileges given to a lien over the crop or crops of the said tenant as if a lien on the crops had been duly made and registered under the Lien on Crops Act of 1862 with reference to entering into possession cutting carrying away and selling the crops and applying the proceeds as in the said Act is mentioned.

17. That the tenant shall not injure any green timber on the said estate and all erections made by him in connection with the said farm shall be removed by the tenant at the termination of his lease to the satisfaction of the landowner the tenant shall also pay to the landowner for any damage done by or loss sustained in consequence of damage done by his stock to gates fencing or other property.

18. That either party to this agreement may terminate the same at the end of any harvesting season by prompt notice in writing to the other party.

19. That for the convenience of loading the said tenant shall make the stacks of wheat in the field as large as possible and in every case said stacks shall be protected against fire by being separated for a distance of fifteen feet from the chaff and by having a strip at least twelve feet wide cleared of stubble round said stacks. All bags of grain harvested shall be stacked by tenant on timber and in manner approved by landowner the cost of said timber to be borne equally by landowner and tenant.

20. No smoking shall be permitted in the field during harvest unless under authorised conditions and specified times and the law relating to careless use of fire will be strictly enforced.

21. No stubble or chaff heaps shall be fired except with the consent of landowner previously obtained.
 22. Where arrangements for agistment of horses are made for the off season in each year the charge will be 20s. per head for the season.
 23. No dirty or otherwise objectionable horse feed shall be used by said tenant on the estate.
 24. That in case of failure of the tenant to comply with any of the conditions herein contained the landowner may by notice in writing forthwith determine this agreement and may take possession relet or otherwise deal with the said farm as if this agreement had not been entered into.

G. H. Greene,
Esq., M.P.

24 Feb., 1898.

As witness the hands of the parties the day and year first before written.

Signed by the said }
 in the presence of }
 Signed by the said }
 in the presence of }

I wish to state distinctly and emphatically that we all look upon the share-farming industry as absolutely permanent. It has been stated in a very reckless way that we propose to utilise the land for four or five years, and then let it go back to pasture. That statement is absolutely untrue in the sense in which it has been sought to be made use of. If we let it go back temporarily—as no doubt will be the case under suitable conditions, for the purpose of restoring the land by rotation of crops, which will clean the ground, the dirty work being the result of bad farming—it will be more with the view of permanency than anything else. It has also been claimed that the small farmers on another line are permanently settled on the land, and will be driven, of necessity, to observe a higher system of cultivation. That I absolutely repudiate. All our experience here and elsewhere has gone to prove that large areas are necessary to ensure a perfect rotation of crops, and also that capital must be available in order to induce the higher methods of farming and the higher class of agricultural employment. With reference to statements that have been made about the floating nature of the population brought about by the share system, I desire to deny those statements altogether, for this reason: that although at times men may leave their holdings because they are handicapped by being unable to do good work, or the owners may find it does not pay to keep useless and incompetent men, as years go on the demand on the part of good men for these lands is ever increasing. At this moment I am informed—and I believe it absolutely—that arrangements have been made on my own land, at Iandra, for about forty farmers. The bulk of these are men who have been on the land for a considerable time, and they are the best men who went there. Some have gone at their own desire to other places—perhaps for family reasons, or to be nearer town; but others have taken other places; and not only that, but the amount of ground let for cultivation this year is larger than it has ever been before. I have looked into the matter during the last few moments, and I find that the amount of cultivation will probably be between 12,000 and 13,000 acres—nearly an average of 320 acres to each tenant—that is, supposing there are forty tenants. As nearly all these men are married men with families, I average each farm as supporting a family of five people. Thus we practically get a settled population of 200 people for a start. This, of course, does not include the paid labour put on the land. It only includes the father, mother, and an average of three children to each family, whilst all the paid labour will be additional. It will be perfectly obvious that, although the same men will not always be in the same place, there will always be someone there. This is also irrespective of the labour done in connection with tank-sinking, the subdivision of fences, and clearing, which will go on side by side with this work. I may point out that there is nothing whatever in the agreement or in contemplation to make a tenant give up his land at any time. There is only one limit, and that is the agreement between the two. The agreement is terminable by either party at the termination of harvesting, as we find that, no matter what agreement we have, if the tenant is not satisfied with the owner, or the owner is not satisfied with the work done by the tenant, it is of no use binding them by an ironclad agreement. Thus both sides are perfectly free. With regard to the alienation of land by the owners, it is the intention of the whole of us to subdivide our holdings and cut them up, and give the men who happen at the time to be farming the first opportunity of buying. I may say that every pledge that has been made in the past by those who are working on the share system—I mean the owners—in regard to the increase of cultivation, the efficiency of work, and so on, has not only been fulfilled to the letter, but has been exceeded.

520. I notice that under the agreement you do not allow a person to keep a cow or two? That is all a matter of arrangement. We are not bound by the agreement to do it for this reason: that if you give an inch to some people they will take an ell. Everything varying from the agreement is a personal matter. I would draw attention to this point: that there is a clause in the agreement which might be misconstrued, viz., that the tenants are not allowed to put up dwellings or erect buildings without the consent of the landowner. That provision was inserted for this reason: that we found that without it men would put up buildings in the most unsuitable places. They would put up wretched humpies and places near to where the stock came to the tanks for water. They would also keep their ducks and poultry there, regardless of the effect on the stock. Experience teaches us that all these matters must be arranged for in each special case. Although we are willing to give every facility of the kind that may be required, we claim the right to say where a building must be put up, what character of building it shall be, and how it shall be utilised. In many instances, in putting up their buildings they make use of our wire-netting fences, or would do so if they were allowed. They also put their agricultural implements against the fences, and tear them down.

521. Under the agreement, what is to hinder the owner of the land from becoming cantankerous in the same way as the men whom you depict, and saying that the men are not doing the work required of them;—who is to be the arbitrator? If a man cannot get on, he himself gives notice and terminates his lease.

522. We will suppose that a man has ploughed 200 acres to a depth of 4 or 5 inches as required by the agreement;—for some reason or other the owner may say “You have not farmed this land properly.” The result may be that according to the terms of the agreement the owner may bring all his stock on the land and plough it over again at the tenant's expense? Any dispute must be settled by arbitration.

523. You do not say so in the agreement? I thought it was there. It was in the old agreement.

524. It is left with the owner to say whether the ground is or is not properly ploughed;—there is nothing to protect a man even though he has ploughed 100 acres? I can only state that that agreement was arrived at after a most careful and painstaking consideration, not only between ourselves as landowners, but between the landowners and tenants. The terms were made known, not only after they were put in the form of an agreement, but while they were being formed. The old agreement where it was found faulty was altered to meet the altered and altering conditions.

G. H. Greene, Esq., M.P.
24 Feb., 1898.

525. What power has the tenant of appealing or of having any complaint he has to make settled? The power of the law, which should make both parties keep their agreement. Of course, this is my agreement and my tenant's agreement; we are mutually bound. Take clause 7 for instance:—

The said tenant shall cultivate the entire area of the cultivable land to a depth of not less than $4\frac{1}{2}$ to 5 inches in a good and husbandlike manner, and shall thoroughly harrow the land at least twice, and keep the same in proper order and condition. That he shall have sufficient plant of good quality, and to the satisfaction of the landowner to harvest the crop expeditiously so as to save loss of grain, and that he shall commence to harvest the moment the crop is ready. The term harvest shall mean the proper stripping or reaping and threshing, cleaning, stacking, and placing the produce in the best possible marketable condition.

526. If the tenant does not do this you have the right to come with your horses and plant, without arbitration being referred to, and plough the land up at his expense? Yes.

527. Should a circumstance like that occur what arrangements have you made to settle your difficulties in a court of law, because the tenant has no standing outside the agreement? I do not consider that either of us have any standing outside the agreement. I cannot break it, and I claim that my tenant cannot break it. There is always the law of common sense which will prevent a landowner hunting away good men, and asking them to do impossibilities. No law was ever framed which could guard against all possible contingencies. Inasmuch as the agreement is only binding for one year, if compliance with it is irksome to a man he can throw it up at the end of one year.

528. There is really nothing, then, to enable a neighbouring farmer to come in and arbitrate between a disaffected tenant and landowner? No; it appears not. I thought there was; but it seems not. But I can force a tenant to do nothing to which he has not agreed, nor can he force me to do anything to which I have not agreed.

529. There is no protection except within the covers of the agreement for a man who is one of your tenants? There is no other protection than the law for a tenant or for myself. I have no protection further than that agreement.

530. This agreement is made between you and the tenant farmers? Yes.

531. Are they satisfied as a rule? Yes.

532. Do they take your land readily? Yes; there are more applications than I can supply.

533. *Mr. Clarke.*] And you select those whom you consider are best suited to the work? Yes; if there is nothing against them they are taken in the order in which they come.

534. *Mr. O'Connor.*] Are the conditions of the agreement explained to them? Yes; they are fully explained. I may mention that last year the ploughing was not done under those conditions, and that the conditions all through never have been fulfilled. But as men of ordinary intelligence and practical experience, we do not ask men to do impossibilities. It is of no use sending "Tom" away to replace him by "Jack," if we think "Jack" cannot do better work than "Tom."

John Quayle Wood, pastoralist, Brundah, sworn, and further examined:—

J. Q. Wood,
24 Feb., 1898.

535. *Chairman.*] Do you wish to make a statement? Yes. I omitted in my evidence at Koorawatha to mention the number of landowners in the Bimbi district who would be benefited by the line to Koorawatha. The number is forty-one, which, with the 198 already referred to, makes 239 landowners.

If we add to this the forty tenant farmers on Iandra and twenty-five on Brundah, we reach a total of 304 persons who will be directly benefited by the Koorawatha line. With regard to the statements that these large estates will soon be exhausted for wheat-growing, I wish to endorse what Mr. Greene has said. The same argument would apply to all land, wherever it is. I think production should be considered, and not merely the question of ownership of land. You may have large areas cut up (say) into 50 acres per man, and a large population who are doing no good with those areas. Both from a national and local point of view one large estate which is producing largely will be of more advantage to the country than a number of small areas with a large number of settlers who are not producing. That is a matter which, I think, should be considered. The mere question of ownership should be second to the question of production. Nearly all landowners, large and small, are being helped by financial institutions. What is being done with them by financial institutions is being done by the landowners here for share farmers. It has been stated that it is only the landowners' produce which will be carried on the railway in the event of its being constructed. I may state that half of the produce is the share farmer's property. My argument is that if he is a producer he is as much entitled to consideration as the landowner, and more so if the landowner is not a producer.

536. On which route is the more cultivation—from Koorawatha to Grenfell, or from Young to Grenfell? There is no question that there is immeasurably more between Koorawatha and Grenfell, viz., 34,000 acres.

537. It is a question, then, after all, whether the produce is raised primarily by tenant farmers or by men possessing their own estates? Quite so.

538. Whether the land is worked by a tenant farmer or by the owner the amount of labour in the production of wheat will be the same? Yes.

539. And the amount of carriage will be the same? Yes.

540. It resolves itself, then, eventually, into a question of the ownership of wheat? Yes.

541. Your contention, I take it, is that whereas for certain advances in money and in kind portion of the wheat when produced by the half-share man belongs to the pastoralist; in the other instance it belongs to the financial institution, or possibly some storekeeper who has advanced money, although under a different species of agreement, to keep him going? That is exactly my contention.

542. You contend that the tenant farmer, as the producer, is as much entitled to consideration as any other man? Exactly the same.

543. You contend that the State should be as much interested in a man who is a tenant farmer as in a man who is an owner? Yes, if he is producing.

544. *Mr. Clarke.*] Do you think the land is worked under the share system to better advantage than if it were worked by small settlers? Yes, I am sure of it.

545. It has been stated that small farmers are better able to look after their own land than after land under the share system? Experience shows quite the reverse.

William

William Jones, farmer, Warradery, sworn, and examined :—

546. *Mr. Clarke.*] Where is Warradery? Twelve miles north of Grenfell.
547. What quantity of land do you cultivate? I had 440 acres of wheat and 60 acres of corn under crop last year.
548. Would a railway from Koorawatha be advantageous to you and other residents of the district? Yes.
549. Do you find it a difficult matter to get produce to market? I am the only one at Warradery who has sold any wheat this year.
550. Where did you sell your wheat? The mill at Grenfell.
551. In that case you are restricted to the one market? I fill the mill up. The owner could not buy any more, because he could not send it away, owing to the want of a railway. If we had a railway we should have the Sydney and Bathurst markets to go to.
552. Which route do you prefer? The route to Koorawatha. It is shorter, and there would be a difference of 4s. a ton in the freight. Again, if we did not sell in Sydney, we should have markets on the western line.
553. Do you think the cultivation of wheat in this district will be permanent? I think so. I have lived on wheat for twenty-one years.
554. Would your neighbours follow your example? Yes; they tell me they will extend their area if it will pay. I have more under crop this year than I had last year.
555. Is it not the practice in this district to lay wheat land down for a few years with lucerne? No; that starves the land altogether unless you lay it down to make manure. I cut the hay off it and plough it. As soon as I strip my wheat I plough the stubble in, and it is ready again about the middle of June, and then I replough it.
556. Is it not a fact that some of the land about Grenfell and district is laid down with lucerne for a few years and then ploughed up again? It may be so, but I do not do it. Personally, I do not approve of it. Of course, you could put sheep upon the land for a few years and afterwards plough it, and put it under wheat again, but it has to be tried. When my land gets dirty, I cut it for hay and then plough it in. I reckon that my land will stand for forty years the way I treat it.
557. Have you any land on shares? No.
558. Do you think the share system is a good one where there is a large quantity of land to be put under cultivation? Yes; people say it will not last long, but I am sure it will.
559. Have you heard of any complaints between the owners of the land and the tenants? No; they have all made a lot of money from it. Men, who were very poor five years ago now carry their cheque-books.
560. Do you think the land would be better cultivated by small farmers living on their own land than by the share system? Personally, I would sooner be on my own land; but my position is different from that of others. If I only had 40 acres of land I would go in for the share system.
561. It has been stated that small farmers working on their own land would get on better than they would under the share system? I do not think so.
562. *Mr. Fegan.*] Have you come here as the mouthpiece of your neighbours? Yes; of a few of them.
563. Whom do you represent to-day? My brother, Mr. C. Jones, who will extend his area if the railway is constructed. He has about 400 acres under crop this year, and will have 500 acres. Then there are William Jannon and Toohey Brothers. The latter are big farmers. Then there is Mr. McLeod.
564. Do you know anything about the Young route? Yes.
565. Do you send any produce to Young? No.
566. Do you know the Koorawatha route? Yes, I was over it four years ago. Of course, there was not much wheat grown there then.
567. Do you know of anyone who has given up his holding and gone in for the half system? No.
568. Do you consider this a better district than Goulburn? Yes; I have grown as much as 40 bushels to the acre, and at Goulburn I have not got more than 15 or 16 bushels.
569. What did you get last season? About $11\frac{1}{2}$ bushels. It was a bad season. If I had had a fair season last year, I should have got 18 bushels. If there had been one shower of rain in October, I would have got that. Fifteen or sixteen bushels is a fair average.
570. How many sheep do you run to the acre? Three. Of course, that is on the well-improved land.
571. What is the lowest price at which you could grow wheat profitably? Two shillings a bushel, delivered in Grenfell.
572. Could you send it to Sydney for that price? No; if it could be delivered in Sydney at 6d. a bushel, I could make good wages out of wheat at 2s. 6d. a bushel.
573. If the price of wheat goes below 2s. 6d. a bushel, will it stop wheat-growing in this district? I do not think so. If we clear the land we shall have to put the wheat in, whatever it fetches.
574. Would wheat at 2s. a bushel be more profitable than sheep-rearing? Yes.
575. *Chairman.*] If a line were constructed from Koorawatha to Grenfell, would Grenfell be the nearest point at which you would reach it? Yes.
576. How far are you from Forbes? Thirty-five miles.
577. What is the freight for wheat to Forbes? There is no road from my place to it. To get there I should have to travel 50 miles.
578. How far are you from Cowra? Forty-four miles. I am 45 miles from Young and 12 miles from Grenfell.
579. Is Cowra your nearest railway station at present? Yes.

W. Jones.
24 Feb., 1898.

FRIDAY, 25 FEBRUARY, 1898.

[The Sectional Committee met at the Public Hall, Bulla Creek, at 2.30 p.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

JOHN LIONEL FEGAN, Esq.

The Sectional Committee further considered the proposed Railway from Koorawatha to Grenfell.

John Napier, farmer, Grenfell Road, near Bulla Creek, sworn, and examined:—

J. Napier.
25 Feb., 1898.

580. *Chairman.*] What area do you hold? 400 acres in one block and 150 acres in another.
581. How long have you been in the district? Twenty-one years.
582. What are you doing with your land? I am farming it and running sheep. I cultivate 200 acres, and the rest I use for grazing.
583. How long have you been cultivating 200 acres? Close on two years. I took 20 bushels to the acre off the land the year before last, and 8 bushels to the acre last year, or an average of 14 bushels. Last year was a very bad one.
584. Do you intend to convey to us that the land in this vicinity is not easily exhausted? Yes.
585. To where do you send your wheat? To Young.
586. What do you pay for carriage? 1s. per bag from my house.
587. Where do you get your goods from? Sydney and Young. All my interest lies in Sydney.
588. Do the goods coming to Bulla Creek come through Grenfell or Young? Young.
589. Therefore all your trade is through Young or with Young? That is so. I may say that I don't think that I should ever have settled here had I not been led to believe by the Hon. Mr. Watson that there would be a railway some day from Young to Grenfell. Consequently all the land has been taken up, and substantial improvements have been made on every selector's residence. We have come to stay. Every farmer here is *bonâ fide*. We are not here to-day and gone to-morrow. We are not on the halves system, but we are cultivating for ourselves, and we should cultivate double the present quantity if we had a line to carry our produce to Sydney. Young cannot consume the whole of it. I cannot sell my wheat in the Young market. If a line came here it would do away with the charge of 1s. per bag by road. I could load here, and that would make a great difference.
590. The charge of 1s. per bag for the conveyance of your wheat to Young means that you are paying 3d. per bushel? Yes.
591. And with a railway you would save the difference between railway carriage and road carriage? That is so.
592. How many people are resident within 6 miles of Bulla Creek? On the eastern portion of Bulla Creek, coming from Grenfell, there is Mr. Dempsey—who holds 2,000 acres—Moses Shannon, Henry Myers, Mr. Rumble, John Baker, Edward Joyce, Mr. Nash, Mr. Frudenstein, William and Robt. Baker, Geo. Webb, Mr. Parnell and myself. I should prefer that Mr. Lynch gave the names of those on the other side.
593. Going towards Young from Bulla Creek, a distance of 12 miles, who are resident there? Herbert Webb, Job Fowler (sen. and jun.), Wm. Powderley, Christopher Powderley, Arthur Taylor, Mr. Marooney, Thos. Joyce, and Mr. Dongers. They are all *bonâ fide* farmers; some of them are gentlemen farmers.
594. You have given us the names of those on one side of the road for a distance of 12 miles;—how far does the area extend from the road? I do not think it will be more than 2 or 3 miles.
595. Are there squatters or selectors behind these people? Iandra lies behind.
596. Does Iandra back up the whole of that 12 miles? No, only 2 miles.
597. What backs up the area besides Iandra? Fowler and his son take in 5 miles of it.
598. Could you give us information with regard to the other side of the road? I could not. I wish to remark that the statement by Mr. Greene's manager, who stated that he knew of 10,000 acres, which the "white line" would pass through, which were in a bad state, is incorrect. I believe that such a class of settlement as that on Iandra is not permanent. Mr. Greene's tenants are not tenants at all. He does not allow them to erect even a slab hut on the land. They live in tents. Some of them live at Monteagle, and were never classed as farmers. They are simply birds of passage.

John Lynch, Burrumunda, sworn, and examined:—

J. Lynch.
25 Feb., 1898.

599. *Chairman.*] Where is Burrumunda? Five miles west from Bulla Creek.
600. *Mr. Clarke.*] Have you any statement to make? Yes. If the "white line" is not constructed, I consider that I as a settler, will have been unfairly dealt with. When my land came up for confirmation seven years ago, the Inspector of Conditional Purchases went into the witness-box and swore that the whole of the area in the conditional lease—846½ acres—was rich agricultural land, and within 4 miles of a surveyed line of railway, which, in all probability, would be built in the near future. The upshot was that the rent was appraised at 1s. an acre, and the local chairman, Mr. Moriarty, said that, considering the character of the land and the conditions of situation, it was, in his opinion, worth 2s. an acre more. I consider that by that act the Government took a portion of whatever increment might accrue through the building of a railway. Of course, I was compelled in a manner to make a conditional purchase of the whole of it after that decision.
601. Does the statement you have made apply to others as well as to yourself? It applies to others—the men who subsequently took up special areas at £2 10s. an acre.
602. What area of land did you take up? 1,169 acres.
603. How much have you under cultivation? 300 acres last year. We are putting an additional 150 acres under wheat and oats this year.
604. Do you consider wheat-growing, as a whole, a profitable industry in this locality? I should, if we had altered conditions; if we had our own market secured to us.

605.

J. Lynch.
25 Feb., 1898.

605. What means have you of getting to market at the present time? By teams to Young.
606. What is the distance from your farm to Young? Twenty miles.
607. What would you pay for carriage? One shilling per bag, or 3d. per bushel.
608. Would you save any distance by going to Young instead of to Grenfell? Yes; we cannot look for a market at Young. We must look to the seaboard.
609. You are further from Young, than from Grenfell? I do not think there is much difference either way.
610. I understand that the distance between Grenfell and Young is 32 miles? Yes.
611. Your farm is 20 miles from Young and 12 from Grenfell? We consider it 18 or 20 miles to Grenfell. The road being so much worse to Grenfell, more than compensates for the mile or mile and a half distance.
612. How many farmers are on the road between Bulla Creek and Young, or between Grenfell and Young? I do not know the whole of the holdings, but I can enumerate a number. Six miles west of Bulla Creek, beginning at the Tyagong, there are Messrs. Rumble, Barr, Aston, Alfred Marten, Jas. Gorman, Thos. Gorman, Rossiter, French, Dogherty, the Crows (there are six or eight of them), the three McNichols, with separate holdings, and the Kikiamah holding.
613. What areas do they hold? I could not say exactly. Kikiamah contains 17,000 acres, and Mr. Aston has 7,000 acres.
614. What do they cultivate? Mr. Doherty goes in for vine culture, the two Andersons, whom I did not enumerate, cultivate 60 or 70 acres of wheat each.
615. Would the "white line," if constructed, be to the benefit of the people whom you have described? Undoubtedly.
616. In what way? They would surely get a platform at Bulla Creek or Burrumunda, which means a saving of 20 miles of road carriage.
617. Would not the residents within 10 or even 15 miles of Grenfell be more benefited by a line from Koorawatha to Grenfell than by a line from Grenfell to Young? The difference in the carriage by team would more than compensate for the extra railage.
618. Would not the carriage 15 miles from the centre of each line be the same? Pretty well, if the roads are the same.
619. Are the roads better in one portion of the district than another? The nearer you approach to Young the better the road. Being the centre, more attention is paid to it.
620. Are you aware of the capabilities of the land between Koorawatha and Grenfell? Yes; I was tank-sinking there before there was any great amount of cultivation.
621. What is your opinion as to value of the land on the respective routes? My opinion is the same as that of the Government officials in the Lands Department. They set down the capital value of land reserved our way at 50s., whereas they fixed the upset price on homestead selections on the Iandra estate at £1 6s. 8d. I consider our land much superior.
622. I do not allude to the Iandra estate particularly, but to the whole of the land through which the proposed line will probably pass;—are you of opinion that the land through which the line will probably pass, between Koorawatha and Grenfell, is better or worse than the land on what is known as the "white line"? From an intimate knowledge of it, I think the land on the Koorawatha to Grenfell route is the worst, with the exception of the valley of the Tyagong, and some of the red land on Iandra. I consider it is inferior to our country, and that the best of it is only equal to ours. I consider we have a greater area of arable land further west, from the parish of Bribaree into the Bland country.
623. Have you completed your list of residents within a distance of 12 miles by 6? No; there are my three brothers; and then there are John Edward Cusack, Percy Light, Patrick Walsh, Thos. Kerns, Jas. Flanagan, Jno. Burns, Chris. Burns, Walter Hughes, Thos. Hughes, and Wm. Hughes, sen., Jas. Hargraves, Wm. Causer, sen. and jun., Mr. Edwards, Geo. McLachlan, Hugh McAlister, Geo. Burgess, Arthur Alchin, Geo. Hughes, Chas. Williams, Thos. Quin, Jno. Teddyman (Teddyman Brothers) these are all on the west side towards Young; Jno. T. Watson, Thos. West, the executors of the late Mr. Steel Caldwell, Jno. Hargrave, sen., Wm. Spring, Wm. Jarrard, Samuel Jarrard, Jno. Hurley, Burrumunda Troy, Wm. Powderley, Chris. Powderley, Wm. Finnigan, Thos. Madden, Jas. Cooper, Thos. Joyce, jun., Thos. Creighton, P. Powell, Henry King, Walter White, Patrick Hackett, and Rowell Douglass.
624. Are there many farmers occupying land on shares? They are only just beginning to follow the example of Mr. Greene, and Mr. Wood. We are very sorry to see the system.
625. Is it not preferable to working on small farms? It is not, inasmuch as the men have to a certain extent to subvert their independence.
626. Do you know the country between Grenfell and Mr. Aston's holding? Yes.
627. What is your opinion of it? I think the valley of the Burrangong Creek, to 5 miles west, cannot be beaten in the whole of the Colony for agricultural land.
628. What is the character of the land about Emu Creek? The Burrangong or Sandy Creek passes 3 or 4 miles south of Emu Creek, which enters into it lower down.
629. Do you consider that a good country for farming? Certainly.
630. The whole of it? Yes. There are little pieces, probably, which are not as good as others, owing to defective natural drainage or other causes.
631. *Chairman.*] What you wish to make clear appears to be this: that if the railway goes from Koorawatha to Grenfell this district is so far removed from Grenfell that we must eliminate from the returns anything in the district you have described? To a great extent.
632. Taking Bulla Creek as the centre, you believe that if the railway is constructed from Koorawatha to Grenfell, everything to the south of Bulla Creek will go to Young? I may say it will go that way for this reason—in the west they have equally good land, and have demonstrated the fact that they can grow equally good produce. Therefore, they will be able to supply any possible market there more advantageously than we can hope to do it. I wish to state that as far as the lower portion of the valley of the Tyagong, and the Iandra and Brundah estates are concerned, they will be almost as well served by the "white line" as by the other, so far as distance is concerned. I may mention that we are carrying on prospecting upon mining leases applied for under the Mining on Private Lands Act, upon Arramagong and Iandra West runs, but within half-a-mile of the "white line." The prospectors had a crushing. The first return was 2 oz. to the ton, the second, 13 dwt., and the third, 12 dwt. I have a few pounds weight
of

J. Lynch. of a sample which I sent to Sydney, and it was assayed as being worth from £36 to £48 a ton. It is practically new country, and we are only making an attempt to develop it. In connection with the Great Southern Silver Mine, about which so much was said a few years ago, and which was floated with a nominal capital of £80,000, I have had as fine a sample of silver as was ever discovered, but owing to the cash being utilised by the well-known Bell and Davis, the company was compelled to go into liquidation. The deepest shaft does not average more than 84 feet. Last year I had something to do with bringing an expert to inspect it. We are still endeavouring to get men connected with that class of mining to take an interest in it. I have a lease under the Mining on Private Lands Act of 10 acres on behalf of a syndicate, and we have two men engaged on the land prospecting. There are two or three other parties also who have similar leases. These leases are right on the "white line." Altogether, the prospects of gold, silver, and tin are favourable. Mr. Slec, the Chief Inspector of Mines, after visiting that part of the country gave a glowing account of its possibilities.

Peter Cramb, farmer and grazier, near Grenfell, sworn, and examined:—

- P. Cramb. 633. *Mr. O'Connor.*] Where is your residence? Seven miles from Grenfell.
 634. How long have you lived in the district? A little over twenty years.
 25 Feb., 1898. 635. Do you know the country between Grenfell and Young? Yes; pretty fairly.
 636. How have you been occupied during the last twenty years? Farming, and rearing sheep.
 637. Do you know the character of the country between Grenfell and Mr. Aston's residence, and also between Mr. Aston's residence and Bulla Creek? Yes.
 638. What is your opinion of the quality of the land we passed over to-day? Much of it is very good. Three-fourths of it are good.
 639. Would 8 acres out of 10 be fit for agricultural purposes? Yes.
 640. Do you know the land between Grenfell and Mr. Wood's? Yes.
 641. What do you think of the relative merits of the country between Grenfell and Mr. Wood's, and between Grenfell and Mr. Aston's residence? I should prefer the country between Grenfell and Mr. Aston's residence.
 642. How much land do you cultivate? Last year I cultivated 100 acres.
 643. What did you produce? Two bags, or 8 bushels to the acre; last year was a very bad year. In a normal year, I produce 14 bushels to the acre.
 644. How far do you reside from Young? Twenty-five miles.
 645. Would it be advantageous, to you personally to have a railway connected with Young? Yes.
 646. Are there many settlers round you? Yes, the place is well occupied.
 647. Do you agree with the evidence of Mr. Lynch, and Mr. Napier? Yes.
 648. Would the construction of a railway enable you to increase your production? Yes; I have 1,440 acres which I have cleared.
 649. How many acres have you under cultivation? 160 last year.
 650. If a railway were constructed, would you put 500 acres under cultivation? I cannot say.
 651. How far would you be from the route of the "white line"? About 1½ mile.
 652. How far would you be from the proposed line to Koorawatha? Grenfell, 7 miles away, would be the nearest point.
 653. Supposing there were a loop-line to Bimbi, how close would you be to it? Three miles.
 654. To where do you send your wheat? Usually to Young.
 655. What do you pay for carriage? 1s. per bag.
 656. From where do you get your store goods? Grenfell.

Robert Baker, farmer and grazier, Grenfell Road, sworn, and examined:—

- R. Baker. 657. *Chairman.*] How far is your residence from Bulla Creek? Two miles towards Grenfell.
 25 Feb., 1898. 658. *Mr. Fegan.*] What is the area of your holding? About 9,000 acres.
 659. How many acres have you under wheat? Three hundred, and the rest is used for sheep farming.
 660. How many acres had you under wheat last season? Two hundred and fifty.
 661. What did you obtain from it? Eight bushels to the acre; it was a bad season.
 662. Where was your market? Young.
 663. Did you sell all your wheat? Yes.
 664. I believe you are nearer to Young than to Grenfell? About half way.
 665. If a line be constructed from Young to Grenfell, how far will you be from the nearest point of it? It will run through my estate.
 666. Are you willing to give your land for the construction of a line? I do not know about giving it exactly.
 667. Has a deputation approached you on the subject? Yes.
 668. What was your answer to the deputation? I believe my brother did promise to give the land free.
 669. Are you and your brother working as partners? Yes.
 670. Did you acquiesce in what your brother said? Yes; but I did not sign any promise.
 671. But I suppose you look upon your promise as you would upon a signed agreement? Yes.
 672. If a line were constructed from Koorawatha to Grenfell, would it be of much use to you? No.
 673. How far would you be from the nearest point of the Koorawatha line? Grenfell would be the nearest point.
 674. How far are you from Brundah? Eight or ten miles.
 675. Personally, then, you are in favour of the construction of the line passing through your estate? Yes.
 676. If the Koorawatha line were constructed, would it cause you to grow wheat to a greater extent than you do at present? No.
 677. If a line were constructed from Young to Grenfell, would you grow more wheat? Yes.
 678. How long have you been growing wheat? Twenty years.
 679. What is the lowest figure at which you make wheat-growing pay? 3s. 6d. per bushel.
 680. If the price went below that, would you continue to grow it? I have not given the matter sufficient thought.
 681. I suppose the price of wheat has not often been so low as it is at the present time? No.
 682. And you have farmed wheat for twenty years? Yes.

683. Was it not during part of the time sold at 2s. per bushel? Yes.
684. Did it pay you when it was 2s. per bushel? No.
685. What is the lowest price from which you have been able to get a fair profit? Nothing under 2s. 6d.
686. Do you think if wheat goes below 2s. 6d. per bushel the farmers of this district will have to cease to cultivate it? I think so.
687. And you speak from an experience of twenty years as a wheatgrower? Yes.
688. How many sheep do you run on your holding? About 8,000. We have run more, but this being a dry season we do not run so many.
689. You run nearly a sheep to the acre? Yes.
690. What was the result of your shearing last year? About 4 lb. to the clip.
691. Where is your market for fat stock? Young and Sydney.
692. What have you to pay for the carriage of wheat from your place? One shilling a bag for wheat, and £1 per ton for wool.
693. So that if the line came within 7 or 8 miles of you it would make a difference? It would go to Young all the same.
694. Would you send more fat stock to market if you had railway communication? Yes.
695. *Chairman.*] From where do you get your stores? From Young and Sydney.

R. Baker.
25 Feb., 1898.

Thomas Nash, farmer, Iandra, sworn, and examined:—

696. *Chairman.*] Where is your residence? Four miles north from Bulla Creek, on the lower land of Iandra run.
697. What is the extent of your holding? 400 acres.
698. Is it your own property? Yes—conditional purchase and conditional lease.
699. How much wheat do you grow? 200 acres; and the residue—15 acres—is barley, lucerne, rye, and orchard.
700. Do you intend to extend your operations? Yes.
701. Has wheat-growing been fairly satisfactory? Yes; until the last two years. Last year I had a poor return on account of a bad season.
702. To where do you take your produce? To Young.
703. What does it cost you for carriage? One shilling per bag.
704. What distance are you from Young? Twenty miles.
705. And a railway will save you 16 miles carriage each way—that is 32 miles? Yes.
706. Have you had experience of any other farming in the district? I have been farming on the halves system with Mr. Greene. I had 36 acres under wheat with him last year, and Mr. Greene had £1 an acre rent for it.
707. And what had you? £1. I got two-and-a-half bags to the acre.
708. Did it pay you? If it had been necessary for me to employ labour, I do not think it would have paid. I had my sons working, and myself.
709. Have you a team and ploughs of your own? Yes.
710. Therefore, instead of working land on the halves system, and seeing that you have as good land yourself, you are going to get the whole of your profits for yourself? Yes.
711. I suppose you think that tenant farming is not so satisfactory as farming your own land, provided you are able to make a start? Yes; I may say that the wheat I grew on Mr. Greene's land went the shortest way to the railway. What I am growing this year I shall also send to Monteaale and Sydney.
712. Why did you go to Mr. Greene to farm in the first instance? Want of means to clear land for myself, and owing to small holding and dry seasons; want of pasturage for large stock and sheep which I then had.
713. How long were you working for him? Four years.
714. Do you consider that, on the whole, your transaction in farming on the halves system paid you? Yes.
715. *Mr. O'Connor.*] Did you find the conditions during the four years referred to in any way severe? I did not care very much about them. I think Mr. Greene's terms are rather hard on poor men. They do not give you much help. They give you the ground cleared and the seed wheat, but when I first started the ground was only half cleared. I cleared it myself.
716. But is it not a great advantage to a man having no capital to get a start in life? Yes. Mr. Greene went security for the plant. Some of the tenants work it off, and some have hardly done so after four or five years.
717. *Chairman.*] How do you get your store goods? Mostly from Grenfell.
718. How far are you from Grenfell? Fourteen miles.
719. How far are you from Young? Twenty miles.
720. If a line were constructed from Koorawatha to Grenfell, where would you send your produce? To Grenfell. I may say that the "white line," being within 2 miles of my property, would be a better line for me than the other, which would be 6 miles away.

T. Nash.
25 Feb., 1898.

Frederick Fowler, farmer, near Monteaale, sworn, and examined:—

721. *Chairman.*] How far do you reside from Bulla Creek? About 6 miles—within 2 miles of the "white line."
722. What area do you occupy? 680 acres.
723. How do you work your farm? It is nearly all under sheep farming. We are farming under the halves system adjoining our own property, on land closer to the "white line" than our own.
724. With whom do you farm on the halves system? Mr. Cockle.
725. Do you find that more advantageous than farming on your own account? We have only had one year's experience, and I think that by running the sheep on the land at home, and farming on the halves system at the same time, we should do fairly well.
726. Is it likely that you will ultimately work your own land in preference to sharing with others? We intend to go more largely into the share system.
727. Then you approve of the share system? Yes; we get the first 4 bushels. If there are 9 bushels to the acre we get $4\frac{1}{2}$ bushels, and so on.
728. Has the gentleman for whom you have been working on shares acted fairly towards you? Yes.

F. Fowler.
25 Feb., 1898.

- F. Fowler. 729. Until you get sufficient capital to enable you to clear your own land, do you prefer to work on shares? Yes.
- 25 Feb., 1898. 730. Which do you think would be more advantageous to yourself and to others who are in a similar position—working on your own land or working on shares? If a man has capital with which to clear his land, and he has the land to clear, it is better for him to work on his own account; but after a few crops the land gets worn out, and it pays better, I think, to run sheep upon it and to farm someone else's land.
731. According to your statement the land requires rest? Yes, or allowed to lie fallow.
732. Is it the practice of some of those who have let out land to grow lucerne, and afterwards break it up again? Yes.
733. Do you think the land through which the "white line" would pass is equal or superior in quality to the land through which the line from Koorawatha to Grenfell would pass? I think it is equal in fertility.
734. Are all the farmers on the "white line" in favour of it going through their land? I think so.
735. Are you aware of any who object to it going through their land? I believe there are odd ones.
736. What is your opinion as to the lowest price at which wheat could be properly cultivated to leave a fair return for your labour? That depends largely on the year—that is, on the crop you get. If you get a large crop you can grow the wheat cheaper than you can if you get a small crop. The general yield per acre, taking an average season, is about 12 bushels.
737. What is the lowest price at which wheat could be profitably grown in this district? I should think not less than 3s. per bushel.
738. Do you think the cultivation of wheat is more profitable than sheep-farming? Yes.
739. Are you aware that some gentlemen letting out land on shares have more applications for land than they can supply? I am not aware that they have more, but I know they have a lot of applications.
740. In the event of the "white line" being constructed, to where would you send your produce? To Young.
741. What distance are you from Young? Eleven or 12 miles. I am about 20 miles from Grenfell. We have 340 acres within 3 miles, and another 320 acres 2 miles further out, but closer to the "white line."
742. Would you not send your wheat grown nearer to Monteagle to the "white line"? We are not farming there now.
743. *Mr. Fegan.*] How far are you from Monteagle railway station, where you are farming on halves? Three miles. Our own area of 340 acres is within 4 miles of Monteagle.
744. Then you will have two railway stations close at hand, if a railway be constructed from Young to Grenfell? Yes.
745. Does all your produce go to Monteagle? Yes.
746. Where do your stores come from? Monteagle and Young.

John Cusack, farmer, Kikiamah, sworn, and examined:—

- J. Cusack. 747. *Chairman.*] How far is Kikiamah from Bulla? About 6 miles west.
- 25 Feb., 1898. 748. What area have you? 200 acres—a special area.
749. What are you paying for it? 35s. per acre.
750. What are you doing with the land? Clearing and cultivating it.
751. Where does your produce go to? Young.
752. What area of wheat have you under cultivation? 43 acres.
753. How far are you from Young? About 17 miles.
754. What does it cost you for carriage? 1s. per bag.
755. Therefore, a railway is worth 12 miles of road carriage to you, taking a load in and coming out? Yes.
756. Since you are only 17 miles from Young, even if a line were constructed from Koorawatha to Grenfell you would not use it? No; I would still draw my produce to Young.
757. From where do you get your stores? Young.
758. Do you know the route from Grenfell to Koorawatha? I have been on part of it—from Iandra to Koorawatha.
759. What is your opinion of the respective merits of the two routes? From what I have seen, I should prefer the land on the "white line."
760. Would you increase your area of farming if the "white line" were constructed? Yes; when we took the land up, we took it at the price mentioned on the understanding that the "white line" was going to run through.
761. *Mr. Fegan.*] Do you agree with the statement made by Mr. Lynch? Yes.
762. How far are you from Monteagle? Twenty-three or 24 miles.

Christopher Powderley, farmer, Bulla Creek, sworn, and examined:—

- C. Powderley. 763. *Mr. Fegan.*] Where is your residence? About 2 miles from Bulla Creek, along the "white line," towards Young.
- 25 Feb., 1898. 764. How far are you from Monteagle? About 5 miles.
765. How near would you be to a railway station if the "white line" were constructed? It runs through my land.
766. Have you promised to give the land required for construction? No; I should require some consideration in return.
767. How many acres have you? 440.
768. What do you do with it? We grow wheat and oats. We had 370 acres of wheat last year, and we obtained 6 bushels per acre from it.
769. Did it pay you? No.
770. Would it have paid you better if you had run sheep upon it? The result, I think, would have been about the same.
771. What is the lowest price at which you could grow wheat profitably? About 3s. per bushel.
772. And you have to carry it a distance of 5 miles to Monteagle? We do not send it there; it is a bad road, and therefore we send it to Young.
773. Are you farming on halves? Yes; we have 300 acres of Mr. Massey's at Burrumunda.
774. Can you say whether it will be a success? I cannot at present, as we have not tried it long enough.

Henry

Henry Doherty, farmer, Arramagong, sworn, and examined :—

775. *Chairman.*] How far is Arramagong from Bulla Creek? 12 miles.
 776. *Mr. Clarke.*] How many acres do you hold? 258.
 777. What area have you under wheat? 70 acres.
 778. Do you find wheat-growing more profitable than grazing sheep? On a small holding I think it is. I have also vines and fruit-trees planted, but they are not bearing yet.
 779. Are there any other farmers in your neighbourhood who are fruit-growing? Not in the immediate neighbourhood.
 780. How many acres have you under vines and fruit-trees? Fifteen. I have no doubt that fruit-growing will turn out profitably.
 781. What distance are you from Young? About 24 miles away. I am 10 miles from Grenfell, and about 20 miles from Monteagle.
 782. Does your wheat go to Young? Yes.
 783. Do you know anything of the proposed line between Koorawatha and Grenfell? I know a portion of the country.
 784. Is the land between Koorawatha and Grenfell of better quality than the land between Young and Grenfell? Taken as a whole, I think the land between Young and Grenfell is superior for agricultural purposes.
 785. Where does that particular land lie? Anywhere from McKinley's Creek towards Grenfell. I consider it is all good agricultural land.
 786. Do you consider the land which the Committee traversed this morning equal to the land between Grenfell and Koorawatha? I think it is superior.
 787. Has it been proved superior? No; but I think it is naturally superior land. I think there is more body in it, and I think it would stand more cropping.
 788. What are you paying for your special area? It was appraised at first at £2, but I got it reduced to 21s.
 789. On what ground did you get it reduced? On the ground that the price was excessive.
 790. Was it on the ground that the land was not so good as you anticipated? Yes.
 791. Or was it on the ground that the "white line" had not been constructed? That ground was not brought forward at the reappraisalment.
 792. Then on what ground did you get the reduction? On account of it being such a distance from railway communication and from a market.
 793. Where do you get your supplies from? From Young.
 794. Will you continue to get them from Young, whether the line is or is not constructed from Koorawatha to Grenfell? I would not say that. The line would bring me nearer the town of Grenfell.
 795. In that case would you go to Grenfell, it being the nearest point? Yes.

H. Doherty.
 25 Feb., 1898.

Thomas Joyce, farmer, Park View, Burrangong, sworn, and examined :—

796. *Chairman.*] Where is your holding? Three miles from Bulla Creek, towards Young.
 797. What area have you? I and my sons own 440 acres of land, which we farm.
 798. How much are you farming? We had about 150 acres of wheat under crop last season, which we sent to Young. We also get our stores from Young.
 799. Would the "white line," if constructed, run near to your holding? Yes; within 200 yards of the place.
 800. Would a line from Koorawatha to Grenfell be of any use to you? No; I am so near to Young that it would be useless to think of coming to Grenfell. I consider that if the "white line" is constructed it will do a great deal of good to the country.
 801. Do you think there would be much trade from the Bland to the railway? I think a good deal of traffic would come in from there. All the wool comes in from there now.
 802. Are you farming on the halves system anywhere? We have put in a little on the halves system this year.
 803. Are you prepared to say anything about it? Last year my sons had some wheat on Mr. Massey's land on the halves system, but the season was not a very good one. We intend to try again this year with 200 acres.

T. Joyce.
 25 Feb., 1898.

SATURDAY, 26 FEBRUARY, 1898.

[The Sectional Committee met at the Court-house, Young, at 10 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

JOHN LIONEL FEGAN, Esq.

The Sectional Committee further considered the proposed railway from Koorawatha to Grenfell.

Edward Taylor, Chairman of the Railway League, Young, sworn, and examined :—

804. *Chairman.*] Do you desire to make a statement? Yes. I desire to place before you a statement which the Railway League has drawn up, as follows:—

E. Taylor.
 26 Feb., 1898.

The Minister for Works having promised Grenfell and Wyalong a railway, and the Chairman of the Public Works Sectional Committee having promised the Committee's support for a railway to Hillston, and the Sectional Committee having reported on the proposed Condobolin-Euabalong line that "a permanent survey be at once undertaken of the explored route from Koorawatha to Hillston, with a view of its consideration in conjunction with existing surveys, and also with a view to the early consideration by Parliament of the expediency of extending railway communication to the several important centres of population affected, and to the reclamation and settlement of a valuable tract of land now in course of abandonment," and the Minister having accordingly stated his intention to meet all these demands by a line from Koorawatha to Grenfell, to be extended to Wyalong and Hillston, the proposed Koorawatha-Grenfell railway assumes corresponding importance, and must be considered from a wide standpoint.

* 3 (a)—E

The

The rainfall immediately along the route is as follows :—Young, average for twenty-four years, 27 inches 95 points ; Nestle Brae, average for eight years, 27 inches 74 points ; Iandra, average for six years, 25 inches 82 points ; Kokedahl, average for five years, 23 inches 30 points ; Brundah, average for twelve years, 26 inches 35 points ; Bogolong, average for ten years, 26 inches 52 points ; Bald Hills, average for nine years, 24 inches 17 points ; Grenfell, average for eleven years, 29 inches 93 points.

The main construction arguments are—Country easily cleared at low cost ; ironbark timber for sleepers in the Weddin Ranges, 10 miles west of Grenfell ; good box and pine timber near Bimbi ; ballast at suitable points ; clay for bricks along route ; plenty of water for locomotive purposes at Bulla Creek, Tyagong Creek, and Burrangong Creek.

The length of the line is 32 miles, of which 3 miles 31 chains are completed.

The line would pass through splendid agricultural land, on which there are probably more farmers than on any 30-mile track anywhere in or around the district of either Young or Grenfell.

4. *The proposed direct Federal line from Werris Creek to Demondrille Junction.*

It is of national importance that the line from Grenfell should be a section of the direct Federal route from Young to Werris Creek, viz. : Young to Grenfell, 32 miles (3 miles 31 chains laid) ; Grenfell to Forbes, 34 miles ; Forbes to Parkes, 21 miles (already laid) ; thence northerly to Alectown ; Peak Hill and Dubbo, 74 miles ; thence to the junction of the north and north-western systems at Werris Creek, about 154 miles.

The Harden-Blayney line shortened the distance between places west of Blayney and the Victorian capital by 375 miles ; also, by connecting the Southern and Western lines, it enables residents of the Western districts to travel south, and residents of the Southern districts to travel west, without crossing the mountains or going through the metropolis, thus shortening the journey, in either case, by 115 miles. In the same way, the Federal line will shorten the distance between Werris Creek and Demondrille Junction by no less than 150 miles.

This Federal line, over 42 miles of which are already laid, will further not only the respective local interests, but also those affecting the Colony, and, by connecting the three great colonies, will be of advantage to Australia.

The section starting northerly from Young would, for about 40 miles, traverse a gently-undulating red-soil country, presenting no engineering difficulties, and eminently adapted for agriculture, viticulture, fruit-growing, and the production of high-class wools. A large area of this district has already been brought under the plough, and the whole of it is auriferous.

Thirty-two miles north from Young, Grenfell would be taken in the line of route, with its gold-bearing quartz-reefs and alluvial deposits, capable of great development.

Continuing northerly to Forbes, the last part of the section would be constructed over country of the best pastoral description, extending westerly to the plains of the Bland Creek, and bounded on the east by low ridges, the slopes of which are all adapted for farming.

The construction of this first section would largely develop the pastoral, agricultural, and mining interests, and be certain to carry a heavy traffic of fat stock, wool, wheat, &c.

The section from Forbes to Parkes is already open ; both towns are the centres of splendid grazing, farming, dairying, and mining districts.

The first 50 miles north of Parkes would be made through chocolate soil flats and slopes, of great depth and strength of soil, which, although chiefly used for grazing purposes, are already occupied by many extensive farms.

All this country is highly auriferous, important mining centres having been developed at Alectown, Mingelo, Peak Hill, Myalls, and Tomingley ; Peak Hill Municipality having a population of over 1,500. Many of the reefs in these localities are heavily charged with pyrites, as depth is obtained, necessitating their ultimate profitable treatment at one of the coal-fields of the Colony.

The northern 24 miles of this section—although not passing through such rich land as the southern end—is chiefly adapted for farming purposes, and the whole section is bounded on the west by the fattening pastoral country of the Bogan River, and the agricultural lands abutting on to the edge of its plains, and when Dubbo is reached communication is effected with Bourke and the Western districts.

Upon this section a heavy traffic of minerals, wheat, wool, and other products would be a certainty.

The section from Dubbo to Werris Creek Junction, after following the alluvial flats of the Talbragar River and the high lands at the head of the Castlereagh, of which large areas are suitable for farming, would traverse what is probably the richest fattening district of New South Wales, at present almost devoid of railway communication, viz., the magnificent pastoral district of the Liverpool Plains.

This section has been estimated to cost £505,600, but the average estimate of £3,200 per mile seems heavy.

The Minister for Works recently stated at Dubbo that it would be necessary to have a fresh survey and estimate made, and that, though it would be impossible to deal with the matter this Session, he would inquire into it without delay.

The momentous advantage of being able to save their stock in times of drought by speedily removing them to the New England district or elsewhere would alone justify the landholders and people of this district in advocating the line from Young to Grenfell, and the conveyance of fat and store stock from Southern Queensland and Western New South Wales to the Wagga, Albury, and Victorian markets are obvious advantages to the Colony.

The Koorawatha-Grenfell route would not connect Young or the Bland districts with the New England district.

This Federal scheme has the support of the Werris Creek, Dubbo, Peak Hill, Parkes, Forbes, Barmedman, Temora, and Cootamundra people. The Parkes League thus conclude their arguments for the construction of the Federal line from Young to Werris Creek :—“To the Australian Colonies as a whole this enormous advantage is presented, namely, a second route between Melbourne and Brisbane, well away from the seaboard, for the conveyance of troops in case of war. As things stand at present, an enemy holding possession of Sydney, Newcastle, or even Broken Bay, could completely sever our lines of railway communication and prevent all movements of troops between Victoria and Queensland, and even from Northern to Southern New South Wales. Queensland and Victoria would also be greatly benefited by the construction of a comparatively straight line of railway built at a low cost per mile, and consequently largely reducing the present expenses of carrying both fat and store stock to their respective markets.” The Cootamundra District Council passed the following resolution held at a meeting held in November last :—“That the Cootamundra District Council heartily approves of the exertions of the citizens of Young in advocating railway extension from Young to Grenfell, thence to Forbes, Parkes, Dubbo, and Werris Creek, thus connecting Brisbane and Melbourne, which would be a national line, and help to strengthen the federal spirit.”

5. *The proposed Federal and commercial line from Temora to Wyalong, Hillston, Broken Hill, and Adelaide ; in conjunction with—6. The proposed line from the vicinity of Moss Vale or Exeter to the Illawarra district.*

The better route to Wyalong is from Temora, through Barmedman.

The Koorawatha-Wyalong route would not suitably serve the Barmedman district, and would seriously reduce the earnings of the Cootamundra to Temora line, drawing the trade of the Temora back district to a branch line at Koorawatha instead of the main line at Cootamundra.

The Bland trade would be diverted from Young.

The Temora-Wyalong route is already permanently surveyed, and would be the shortest line to construct, and could be probably completed in a year and a half—which would be an immense benefit to Wyalong—as there would be no cuttings or bridges to speak of, whereas bridges and viaducts would be necessary on the Bland country.

Temora Station is one of the best sources of supply on the Southern line for the ironbark required for sleepers, girders, &c.

From Temora to Wyalong the route follows the road, and there are a considerable number of selectors engaged in agriculture.

In addition to the ordinary passenger and merchandise traffic, there will be large supplies of firewood required by the numerous chlorination works and batteries, besides timber for mining purposes at Wyalong, where there are five saw-mills whose proprietors would become customers.

The population of Wyalong is estimated at between 4,000 and 5,000, not including the growing township of Yalgogrin.

The Temora-Wyalong route would mean to the Barmedman and Wyalong districts more settlement, more cultivation, and fewer rabbits.

Temora

E. Taylor,
26 Feb., 1898.

E. Taylor.
26 Feb., 1898.

Temora to Wyalong, through Barmedman, is 40 miles; Young to Grenfell, 29 miles; total, 69 miles.
Koorawatha to Wyalong, via Grenfell, is over 87 miles, with Temora, Barmedman, and Young left out of consideration.

In reference to the Public Works Sectional Committee's recommendation of the Koorawatha-Wyalong line, "For the reclamation and settlement of a valuable tract of land now in course of abandonment," the League desire to point out that there is plenty of room for a greater development and settlement on vast areas of Crown lands between Cootamundra and the western rivers, and that the Temora-Wyalong railway would mostly traverse Crown lands, large tracts of which are periodically thrown open for settlement.

The ores from Cobar (where is erected the largest stamper mill in the Colony, and where water-jacket furnaces reduce ores for final treatment at Lithgow or Dapto or Cockle Creek), Nymagee (where there are 100,000 tons of ore ready for treatment by cyanide process), Dubbo (where a plant is being erected to treat 25,000 tons of tailings from Stuart Town), Peak Hill, Parkes, Carcoar, Blayney, Orange, and Hill End, reach the coal per the Western line.

Also ores from Wyalong, Temora, Gundagai, Adelong, and other mining towns reach the coal per Southern line, and will do so to a much greater extent when the Southern line is connected with the coast line from Exeter or Moss Vale, only about 30 miles off.

The ore at these places should be readily accessible to the coal (and *vice versa*, the coal to the ores), at Berrima (7 miles from Moss Vale), or at Illawarra (where are situate the finest smelting works in Australia), or Wollongong, and to the deep water at Kiama, or Port Kembla—when the present scheme for a harbour there is accomplished.

The Minister and the Public Works Committee have promised Hillston a railway for its grain.

Then why not Broken Hill *via* Menindie for its ores, to further support the proposed line or lines?

The regular despatch of sulphides from Broken Hill to Port Pirie for shipment to Europe is well known, but with the existence of such works as the Smelting Company of Australia at Dapto, and the Sulphide Corporation Works at Cockle Creek, this course should become unnecessary.

These works are making their existence felt, heavy consignments of ore being regularly received from all parts of Australia and Tasmania. Ores and concentrates are being carried by rail from Broken Hill to Port Augusta, Port Pirie, or Port Adelaide for shipment to Dapto or Newcastle.

It may be said that the railway cannot compete with water carriage, but it may be that with the line at Hillston (and the factors of rail freight from Broken Hill to the South Australian coast, the cost of handling the bags or ores off trucks and loading them on board ship, the cost of marine insurance and shipping freight and charges, and the saving of time by rail transit), the possibility of carrying the ores from Broken Hill to Illawarra *via* Exeter or Moss Vale by rail may be brought about.

Altogether it is not apparent that the Koorawatha-Grenfell-Hillston route would be as advantageous to the whole Colony as the line from Werris Creek to Demondrille (part already constructed), and the line from Temora to Wyalong and Hillston.

The Young Railway League look for the time when Young will be on a main trunk line from Brisbane to Melbourne, and when Temora, Wyalong, and Hillston will be towns on a main trunk line to Broken Hill and Adelaide, traversing an immense tract of country rich in mining, agricultural, and pastoral resources.

Submitted with this statement is an Appendix containing further information and statistics.

The returns with regard to population do not include anyone closer to Young than 3 miles. In other words, the returns start 3 miles from Young. Thence we follow the "white line" to Grenfell. Most of the holdings on the east about on the line. On the west, the nearest boundary to the line is not more than 15 miles from it. We have purposely taken a narrow strip of country. I desire to attach the following appendix to my evidence:—

Table of Distances.

I.		miles.
Koorawatha to Grenfell		29 $\frac{3}{4}$
Young to Grenfell, 32 miles, less constructed 3 $\frac{1}{2}$		28 $\frac{1}{4}$
Difference in construction in favour of route from Young		1
II.		
Koorawatha to Wyalong, <i>via</i> Grenfell (approximate)		87 $\frac{1}{2}$
Temora to Wyalong, <i>via</i> Barmedman	40 miles	
Young to Grenfell	28 $\frac{1}{4}$ „	
		68 $\frac{1}{2}$
Difference in construction in favour of Young to Grenfell, and Temora to Wyalong.....		19
III.		
Sydney to Grenfell, <i>via</i> Koorawatha, Western route (approximate)		265 $\frac{3}{4}$
Sydney to Grenfell, <i>via</i> Young, Southern route (approximate)		277 $\frac{3}{4}$
Difference in distance in favour of western route		12
IV.		
Sydney to Wyalong, <i>via</i> Koorawatha, Western route (approximate)		323 $\frac{3}{4}$
Sydney to Wyalong, <i>via</i> Temora, Southern route (approximate)		330 $\frac{1}{2}$
Difference in distance in favour of Western route		6 $\frac{3}{4}$
V.		
Sydney to Hillston, <i>via</i> Koorawatha, Western route (approximate).....		435 $\frac{3}{4}$
Sydney to Hillston, <i>via</i> Cootamundra and Temora, Southern route (approximate) ..		442 $\frac{1}{2}$
Difference in distance in favour of Western route		6 $\frac{3}{4}$
VI.		
Wyalong to Lithgow, <i>via</i> Koorawatha (approximate)		228
Wyalong to Berrima (or Mittagong), <i>via</i> Cootamundra and Temora (approximate)		252
Difference		24
VII.		
Werris Creek to Demondrille Junction, <i>via</i> Sydney		485
Werris Creek to Demondrille Junction, <i>via</i> proposed Federal route		385
Saving in distance by Federal route		150

Mr. Coghlan, in his statement showing the area under wheat in New South Wales in 1896, said, "The increased area of wheat for grain on the Southern tableland is over 38,000 acres, the increase being general, the largest extension of cultivation being in the Grenfell and Young districts."

In the Police District of Young, within counties of Monteagle and Bland, excluding rented Crown lands, there are 26 holdings, ranging from 1 acre to 23,200 acres (Memagong). Over 14,200 acres on these holdings were under wheat in 1896, the average yield per acre being 9.44 bushels.

Wheat

Wheat Yield, 1897-98.

	acres.	bushels.
County Bland.....	4,113	32,890
County Monteagle.....	11,771	97,170
	15,884	130,060

E. Taylor.
26 Feb., 1898.

(The price at Mark Lane, London, for British wheat ranged from 4s. 7½d. per bushel in 1891 to 2s. 10¼d. in 1894. Imported wheat at same market ranged from 4s. 9½d. in 1891 to 2s. 10¾d. in 1894.)

Town and District of Young.

Flour-mill.—The number of bushels received at the local flour-mill for the years 1894-98 was as follows :—

1894-95, 5th year	206,000 bushels.
1895-96, 6th year	215,000 „
1896-97, 7th year	261,855 „
1897-98, 8th year	318,727 „

Butter Factory.—For the year ending 31st August, 1897 :—

Milk received.....	107,550 gallons.
Cream	72,019 lb.
Total output of butter	77,252 lb.
Average price paid for milk	4d. per gallon.

Meat Works.—Three miles north-west of the town of Young, established in 1893, costing over £12,000. They were built with a view of tapping the large fattening and wool-growing district of the Bland Plains. The plant contains a complete modern boiling, chilling, freezing, and manure plant. The works are capable of treating 2,000 sheep a day. The Pastoral Finance Association (Limited) took over these works in December, 1896, and during three months' operations treated 27,000 sheep—nearly all being chilled for export. It is near these works that the proposed Young-Grenfell line would commence, the advantages of which are obvious.

Postal Revenue.—The postal statistics for the year 1896 are—

	Receipts.	£	s.	d.
Postal Revenue		2,085	0	0
Telegraphic Revenue		613	0	0
Money Order, &c., Revenue		115	0	0

Expenditure for same year

	£2,813	0	0
	1,225	0	0

Customs Revenue.—The revenue derived from this source for the year 1896 was £564 ls. 6d., being excise duty on 45,126 gallons of beer:

Land Revenue.—1897—£28,708.

Gold raised.—1897—£8,375 (2,134 oz.)

Population of Young.—1896—5,111 ; 1897—5,436 ; 1898—5,658.

Extract from *Sydney Morning Herald*, of 19th November, 1897 :—“ Since the commencement of smelting operations at the Australian Smelting Company's works at Dapto, the railway traffic in connection with the works has averaged 4,000 tons per month. Ores and fluxes are received from as far north as Tenterfield, as far west as Orange, and from near Albury on the south. Consignments also come by steamer from southern parts of the Colony. About 50 per cent. of the whole, however, comes from Broken Hill. The company has shipped, so far, 250 tons of bullion, containing gold, silver, and lead, the percentage of gold ranging from 6 oz. to 20 oz. per ton. The bullion is at present being sent to England for final treatment, but on the completion of the refining plant, which is now nearly ready, all the metals will be separated by the company at Dapto.”

Specimen of Statistical Sheet used for “white line” :—Name of Holding. Area. Area under crop.
Stock. Sheep. Cattle. Annual wool clip. Annual sales of stock. Sheep. Cattle.
Annual sales of produce. For or against line. Total population on holding. Distance of nearest boundary from line. Remarks.

I have some statistics relating to the various holders on the “white line” furnished by the holders themselves, as follows :—

Name.	Holding.	Area.	Under Crop.		Stock.		Wool.	Sales.		For the white line.	Land given.	Population residing on Holding.	Remarks.
			Per.	Tem.	Sheep.	Cattle.		Stock.	Produce.				
George Dooley.....	Stone Cottage..	acres. 121	acres. 60	acres. 20	....	10	....	15 cattle.	200 bags wheat.	Yes.	....	7	
John Anderson	Arramagong Farm	233	50	..	....	40	....	12 cattle.	150	Yes.	....	4	Increase next year.
A. Aston	Arramagong East	7,000	400	9 corn.	8,000	50	120	2,000 sheep.	900	Yes.	Undecided.	15	Expect to cultivate 3,000 acres next year.
D. Anderson.....	Arramagong ..	500	40	..	300	....	4	20 cattle.	100	Yes.	....	6	
W. Baker	Arramagong ..	520	40	..	....	....	....	200 sheep.	....	....	....	....
Robert Baker	Iandra West ..	9,500	300	..	8,500	....	160	2,000	400	Yes.	Make concession.	6	Increasing over 300 next year.
John Baker	Tyagong	680	150	..	150	10	2	300	250	Yes	....	7	Increasing next year (crop.)
William Borr	Silver View	477	108	..	450	6	....	450	400	Yes.	Undecided.	5	Increasing cultivation to 240 acres next year.
Henry Bailey	Merryland	100	10	..	....	5	..	....	20	Yes.	....	4	
Arthur Brown (absent.)	Creighton Park	200	....	..	....	....	....	....	....	Yes.	....	....	Since become Mr. Fowler's property.
Peter Cramb	Strathern Farm	1,440	200 wheat.	..	1,700	3	30	500	700 corn 66 b.	Yes	Undecided	9	Increasing cultivation largely next year. Clearing 800 acres.
John F. Clode	Kikiamah	15,000 exclusive of selectors.	100	..	14,000	4	250	5,000	300	Yes	....	14	Over 600 acres for cultivation next season. Providing line constructed, cultivation considerably increased.

Name.	Holding.	Area.	Under Crop.		Stock.		Wool.	Sales		For the 'white line'	Land given.	Population residing on Holding	Remarks	
			Per.	Tem	Sheep.	Cattle		Stock	Produce					
John Causer.....	Sandy Creek	400	40	..	..	25	..	10 head cattle.	70 bags wheat 12 tons hay.	Yes	..	15	Would increase area providing "white line" constructed.	
Patrick Crowe....	Arramagong East.	520	100	..	..	200	25	3	100	70 bags wheat 12 tons hay.	Yes	..	4	Increasing cultivation next year.
Paul Crowe ...	Kikiamah	240	..	..	..	..	..	..	..	Yes	..	1	Cultivating next year.	
William Crowe .	Stony Creek	850	70	..	..	700	8	8	300	200	Yes	..	3	Good land Increasing cultivation next year.
Patrick Crowe	"	500	70	..	..	600	20	6	250	230	Yes	..	5	..
Richard Dempsey	Red Hill	1,300	380	..	..	1,200	15	17	500	1,200	Yes	..	7	Increasing cultivation next year.
E Dempsey														
P Dempsey														
H. Doherty														
M. J. Fitzgetald	Harefield Shamrock ..	257	60	..	..	200	5	3	..	120	Yes	..	7	15 acres of vines and trees.
		420	40	..	..	..	20	..	30	50 bags wheat and hay	Yes	Un decided	10	Will probably make concession.
F. Freudenstein	Chippendale	461	100	..	..	500	..	8	600	300	Yes	..	4	Increasing crop acreage next season
J. Gorman (absent)	Arramagong West	85	..	..	..	..	..	..	..	..	Yes	..	..	Fust year ; crop next year.
J. Flanagan	Pinedale	207	100	..	..	..	7	..	..	130	Yes	..	9	..
James Hooper	Burrangong House	1,000	100	..	..	900	20	10	500	240 wheat 15 t hay	Yes	..	8	..
F Hargrave .. .	Iandra	774	60	..	..	500	20	5	500	60	Yes	..	2	Increasing to 400 acres next year.
Thos French	Arramagong	153	80	..	..	..	..	..	..	100	Yes	..	8	Increasing cultivation.
Wm. Hunter .. .	Emu Creek	480	60	..	..	400	5	5	200	200	Yes	..	9	Increasing next year.
Thos. Hughes .. .	Stoneville	87	10	..	..	..	7	..	..	30	Yes	..	8	..
E. Joyce .. .	Green Dale, Tyagong.	200	120	..	..	..	13	..	..	300	Yes	..	11	Additional crop, 106 acres, on Iandra
Willm Jarred	Cremonne	1,122	15 corn 100 wheat	..	..	2,000	30	30	500	300	Yes	..	6	Increasing cultivation next year .
Thos. Joyce	Park View ...	440	219	..	..	250	20 cattle 20 horses	4	100	650	Yes	..	6	" "
H King, junr ..	Hopart ..	320	60	20	..	200	..	6	100 sheep 15 cattle	200	Yes	Would make concessions	5	Increasing next year.
Lynch Bros	Burraramunda	1,160	300	..	..	1,100	6	20	500	400	Yes	..	7	Increasing cultivation 100 acres.
John Napier	Eldershe	800	150	..	..	400	20	6	..	200	Yes	..	5	..
John Maroney	Lower Coole gong	5,600	500	..	..	7,000	100	100	1,500	2,000 wheat, 50 corn, 20 tons hay	Yes	..	10	Increasing cultivation considerably next year
T Nash ...	Nashvillia	400	220	..	..	40	3	..	..	800	Yes	..	12	Join League at later date
										bushels wheat, 20 tons hay, 100 bags corn				
Alf. J. Massey	Burraramunda, Toy	5,353	130	..	..	6,000	12	90	1,500	520	Yes	..	7	Fully 1,000 acres ready for cultivation next year.
P. Powell .	Grenfell Road	80	20	..	..	..	10	..	..	60	Yes	..	2	..
Thos McNamara	Bulloo Creek	100	..	..	..	..	23	..	..	..	Yes	..	13	..
Henry Myers .	Tyagong Crossing	1,300	250	..	..	1,700	7 horses	26	600	600	Yes	..	7	..
A Martens .. .	Arramagong	350	130	..	..	160	10	2	..	450	Yes	..	14	..
Mis D McKenzie	Summer Hill	60	15	..	..	..	..	..	..	30	Yes	..	2	..
A M Nickle	Kikiamah	1,500	325	..	..	1,000	30	13	500	1,000	Yes	..	13	Cultivate 500 acres next year.
G. Martin .	Sandy Creek	1,250	500	..	..	1,400	35	20	400	1,000	Yes	..	14	Increasing cultivation next season
A Martin	"	640	..	..	..	..	..	..	..	150	Yes	..	..	Cultivating 140 acres next year ; first year of occupancy
C Powderley	Bloomsberry	700	350	50	..	1,000	20	8	800	tons hay 80 tons wheat, 1,000 bags, corn, 20 bags	Yes	Would make concession	17	As line intercepts cultivation paddocks, can only make reduction Pay membership for self and partner when in town
W. Powderley														
J T Plowes .	Lochel	400	170	..	..	300	20	4	150	400	Yes	..	..	Increasing to 250 next year
W. Rumble	Water Vale	573	107	..	..	480	10	12	200	250 cwt	Yes	Un decided	11	Increasing cultivation by over 50 acres next year
M Shannon .	Annadale	320	80	..	..	300	2	4	80	176	Yes	..	2	Increasing cultivation next year
John Simpson	Weddin	3,000	400	..	..	3,000	50	40	300	1,200	No	..	10	Line not required, as no saving in carnage of produce.
Jas Simpson .	Overdale .	1,200	460	..	..	900	20	12	300	1,000 w, 450 corn	Yes	Yes	13	Increasing cultivation by 150 acres
L. S. Singleton	Arramagong	18,000	500	..	..	14,000	20	200	4,000	1,500	Yes	12 exclusive of farmers	..	Increasing area under cultivation to 700 acres next year.
A. Taylor	Two and Half Mile	47	10	..	..	..	3	..	..	25	Yes	..	8	..
H G Thackeray	Clifton	9,200	1,200	..	..	16,000	50	300	3,500	5,000	Yes	..	25	Owners to be consulted, possibly concession granted. Cultivation on increase
A J. Taylor .. .	Meadow View	500	300	..	..	1,000	50	30	500	100 tons cnaff ; 500 wheat	Yes	Give land	6	..
C. White	Burrangong	2	..	..	..	..	13	..	..	800	Yes	..	5	..
H. Webb .. .	Bloomfield .	550	200	..	..	600	20, and 30 horses	12	2,000	wheat, 40 tons hay, 200 b corn	Yes	No	10	..
Geo. J Webb	Summerfield	960	150	..	..	600	25	10	300	400	Yes	No	9	..
C. D. Webb	Myrtle Valle	800	250	..	..	600	6	10	300	600	Yes	..	9	..
Thomas Quinn.....	McHenry's Creek.	700	150	..	..	..	60	..	40	300	No	..	7	Mr Fowler's property. Subdivides property ; reason for opposing line: Interferes with hotel business.

Name.	Holding.	Area.	Area under Crop.	Stock.			Annual Sales.			Popula- tion.	Remarks.
				Sheep.	Cattle.	Horses.	Wool clip.	Stock.	Produce.		
J. A. Caldwell ...	Upper Bel- abla.	6,500	20	5,200	30	20	100	400 sheep.	.....	12	Has 200 acres cleared; will in- crease his area with aid of "white line."
J. D. Mackenzie...	Richlands ...	3,340	...	3,000	4	...	70	£350	.....	8	Will cultivate largely if "white line" is constructed.
Jas. Hargrave ...	The Farm ...	160	25	...	3	...	First year.	.....	.....	1	
W. G. Regan	Wattle Vale	1,280	...	2,500	15	...	17	1,600 sheep.	.....	9	Hopes to cultivate largely should "white line" be constructed.
P. J. Light.....	Kikiamah ...	265	20	...	4	4	...	.....	£50	2	Intends cultivating all land possible.
J. E. Cusack	Quondong ...	200	53	...	7	7	...	.....	£100	3	Will cultivate more land with aid of railway.
Jas. Flanagan.....	(Special area)	?	...	...	8	6	First year.	.....	.....	7	Intends cultivating largely.
Paul Crowe.....	Pioneer	233	First year.	...	9	8	...	£30	.....	1	do do
T. M. Crowe	Tyagong.....	150	40	200	...	...	8	20 cattle	£30	3	If he gets a railway, will put 100 acres under crop.
P. J. Walsh	Little Kiki- amah.	640	300	...	25	20	...	£30	£260	11	Intends cultivating whole area if platform is erected on "white line."
Thos. West	Belabla East	820	80	820	21	...	13	100 sheep.	1,000 bushels wheat; 5 tons hay.	9	
John C. Watson...	Greenbank...	18,000	200	18,000	56	25	403	6,000 sheep; 20 cattle	.....	30	Is clearing 2,000 acres; intends to further increase cultivation.
William Causer ...	Thuddungra	...	60	500	8	10	18	.....	£75	5	Will considerably increase area under crop if gets nearer railway communication than Young.

I also hand in a petition in favour of the construction of the "white line" from Young to Grenfell, signed by 343 persons. It is as follows:—

KOORAWATHA-GRENFELL RAILWAY—THE "WHITE LINE"—YOUNG TO GRENFELL.

To the Chairman, Sectional Committee, Parliamentary Standing Committee on Public Works,—

Sir,

The Petition of the undersigned residents of the town and district of Young humbly sheweth—

That a great necessity exists for railway communication between the towns of Young and Grenfell, such necessity being based on the following facts:—

A former Government promised a line from Young to Grenfell, which is permanently surveyed, the land 40 chains on either side being within a railway reserve since 1883, present settlement along the line being largely due to this promise.

The present Minister for Works has stated that Grenfell is entitled to connection with the present railway system.

The districts of Young and Grenfell are well established as wool and wheat-growing centres.

The line from Young to Grenfell will pass through splendid agricultural land, on which there are probably more farmers than on any 30-mile track anywhere in or around the districts of Young or Grenfell.

Out of sixty-nine land-holders immediately on the surveyed line of route, or immediately adjacent thereto, representing 115,710 acres, five holders, representing 27,400 acres, have volunteered to give land for railway purposes; two, representing 1,020 acres, will make concessions, and one will probably do the same. 10,850 acres of the said sixty-nine holdings are under permanent cultivation; thirteen holders are increasing their areas by 5,443 acres, and thirty others are also increasing their areas.

The annual sales from the said holdings are—Wool clip, 1,813 bales; wheat sales, about 17,000 bushels; stock sales 34,090 sheep, 122 cattle.

The present population on the said holdings is 511. There are five public schools on the line of route, and three a few miles from it. (These figures would be very much increased by taking a radius of 10, 20, or 30 miles from the line of route.)

The country on the line of route can be easily cleared at a low cost. There is ironbark timber for sleepers in the Weddin Ranges, 10 miles west of Grenfell; also good box and pine timber near Bimbi; also ballast, and clay for bricks, at suitable points along route; also plenty of water for locomotive purposes at Bulla Creek, Tyagong Creek, and Burrangong Creek. Three miles 31 chains of the line are already constructed.

The line from Young to Grenfell would form a section of the Federal route from Young to Werris Creek, of which 24 miles (Parkes to Forbes) and 21 miles 31 chains (Young to Demondrille Junction) are already laid. This Federal line would shorten the distance between Werris Creek and Demondrille Junction by 150 miles, and would greatly facilitate the transit of passengers and mails between Brisbane and Melbourne. At present the Queensland English mails are detained in Sydney eight and a quarter hours. The sphere of usefulness of that part of the Harden-Blayne line between Young and Demondrille will not be complete until it is part of the Federal line, connecting Queensland and Victoria, which will further not only various local interests, but also those affecting the Colony, and by connecting the three great colonies will be an advantage to Australia.

The conveyance of fat stock from Southern Queensland and Western New South Wales to Wagga, Albury, and Victorian markets are obvious advantages to the Colony, but the momentous advantage of being able to save their stock in times of drought by speedily removing them to the New England district or elsewhere would alone justify the people of the town and district of Young in urging their humble Petition.

That, in consideration of the foregoing, your Petitioners pray that you will cause full inquiries to be made as to the just claims of the important town and district of Young before deciding on the construction of any line of railway communication connecting the town of Grenfell with the present system.

And your Petitioners, as in duty bound, will ever pray.

805. The people who have signed this petition may reasonably be presumed to be interested in the "white line"? I think they are all interested in it.

806. With regard to the traffic coming into Young—has the Marsden traffic come to Young in the past? Yes.

807. Do you think that in the future the export from Australia will be in flour or in wheat? If my ideas are carried out, it will be in flour. I think every district like Young, where wheat is grown, should erect

E. Taylor. erect sufficient mills to grind the wheat into flour, and should send the article in its matured state to the markets—wherever they are—whether to the seaboard, Sydney, or otherwise.
26 Feb., 1898. 808. How does the wheat reach England, as a rule—as wheat or flour? I think a great deal of it goes there as wheat.

809. Is it a mixed trade? I think it goes chiefly as wheat.

810. Then that would be against you, so far? It is, so far.

811. What brings you to the conclusion that it is going to pay you better to make the flour in Young, and to export it? We grow the wheat here, we grind the flour here, and we employ the labour and circulate the wages in our own town, and they stop in our own district. Then there is the offal from the wheat. Of course everything is turned into money. Apart from that there will be less carriage to Sydney.

812. Have you anything to prove that a better price will be obtained for the flour ground in Young than for the exported wheat? I believe our flour in many instances brings as much as 10s. a ton more than other flours. The flour ground in Young is as high as or higher than that ground in any other part of New South Wales.

813. Is it probable that flour does not carry so well as wheat, and may deteriorate in carriage? There may be something in that.

814. I notice from the Appendix you have handed in that last year 319,000 bushels of wheat were received at the local flour-mill? That is so.

815. Divide 319,000 by 14 bushels to the acre, and it appears that the mill in Young crushes the produce from 22,000 to 23,000 acres of wheat land? That is so.

816. Is the co-operative flour-mill the only one in Young at present? Yes.

817. Inasmuch as there is an area around Young for growing wheat very much greater than 23,000 acres, it stands to reason that if you are going to crush in Young anything like the quantity of wheat which geographically belongs to it there will require to be a good many flour-mills. If the wheat grown around here is exported as wheat, you will not want any more flour-mills? That is so.

818. The question is really whether you will crush the wheat in Young, or whether it will pass by on the railway to the seaboard? All I can say is that, if my advice is taken, it will all be ground in Young. The mill here has given, on an average, from 1d. to 3d. per bushel more for the wheat than the farmers would have got if the mill had not been here. I told Mr. Greene, this year, when he asked me what we were going to give for wheat, that we were going to give as high as anyone else. He replied, "That is not much." I answered, "We will give you 1d. a bushel more for your wheat than you can get for the same wheat in Sydney, less the carriage." I am able to make a statement as to the amount of land through which the "white line" would pass, which would be given to the Government if that line were constructed. Through Simpson's property it would pass a distance of 1 mile; through Aston's, a distance of 3 miles; through Thackeray's, a distance of 1 mile 32 chains; through Baker's, a distance of 3 miles; through A. Taylor's, a distance of 63 chains; giving a total, approximately, of 9 miles. It would also pass through Crown lands a distance of 7 miles, giving, therefore, a total of free land of 16 miles. In addition, Mr. Cramb has made a verbal promise that he will give the land required, and there are a number of others who say they will make concessions. I produce a letter from the Pastoral Finance Company, giving particulars of the Chilling Works at Young, as follows:—

The Pastoral Finance Association, Limited, Sydney, 9th November, 1897.

The Hon. Secretary, Young Railway League,—

Dear Sir,

Replying to your favour, 5th instant, we beg to state that our statistics of the operations of Young Works do not go back further than the date of our starting there, which was in the beginning of December, 1896; and during three months' operations we treated 27,000 sheep, nearly the whole of that number being chilled for export.

Yours faithfully,

The Pastoral Finance Association, Limited,

W. TYSON, Joint Manager.

John Adolf Rossbach, District Engineer, Young Road District, sworn, and examined:—

J. A. Rossbach. 819. *Chairman.*] What are the limits of your district? The north-western corner of my district is approximately a little west from Marsden; thence I come almost direct to Temora; thence easterly, keeping a direct line to Stockinbingal. There the district boundary makes a little north to a little south from Deep Creek. Then the southern boundary follows a fairly easterly course to a little north from Wallendbeen. The southern boundary still continues easterly through Nubba, Murrumburrah, and Galong; a few miles east from which latter place it turns north-easterly, and passes through Burrowa, close to Rugby, to Narrawa bridge; thence along the Lachlan to Reid's Flat; thence the northern boundary is an approximate westerly line, with such deviations as bring it through Kenyu, Koorawatha, Brundah, Grenfell, Barbingal, and to Marsden. Of course these boundaries are not absolutely right lines, but they will convey to your minds the area of my district.

820. *Mr. Clarke.*] Are you acquainted with the route of the proposed railway from Koorawatha to Grenfell? I do not know it very intimately; I have not been very much over that part of the country. The roads there are not numerous. Although I have driven from Grenfell to Iandra, I do not know the position of the proposed line. It has been surveyed since I have been through there. I know the route of the "white line" better.

821. Which route do you consider best both in the interest of Grenfell and Young? I think the "white line" would benefit the greater number, and that it would be easier to construct. I can only speak generally of the other line, as I do not know its exact position, but it seems to me to cross a little more hilly country, and would be more costly in construction. There is more roll in the country between Grenfell and Koorawatha than there is between Grenfell and Young, and that means a little more earthwork.

822. In the event of either line being constructed, in what way would the road traffic be reduced? The road from Young to Grenfell gets a yearly grant of £600, and I think the traffic between Bulla Creek and Young would be considerably reduced, but between Bulla Creek and Grenfell there would still be a large amount from the farmers resident there which would come to a station at Burrumunda or to Grenfell. For 15 miles the traffic would be very much reduced. The "white line" would also affect the Burrangong and Emu Creek Road, as also the road from Grenfell, *via* Bimbi, to Williams' Crossing on the Bland.

J. A.
Rossbach.
26 Feb., 1898.

S23. How would it affect these roads? I consider that on the Young to Grenfell road the present expenditure of £600 per annum might be reduced by £225. There would be less expenditure on the 15 miles nearer to Young. In the other case—Grenfell to Williams' Crossing—the 8 miles nearest Grenfell would run quite parallel with the railway, and the traffic would be reduced on that portion. I estimate that there would be an increase of traffic from Bimbi, past Arramagong. It would meet at a proposed station at Tyagong Creek. Therefore that road, which is now granted about £150 per annum for 50 miles, should, I think, be granted about £300. Another road—Burrangong to Emu Creek—appears on the schedule for the first time this year, and gets £260 per annum; but I think the expenditure might be considerably reduced, and the "white line" approached by a shorter road, which would bring the traffic to a proposed station at Burrumunda. The saving on that road would be £160. The next road which would be affected would be Clifton, *via* Bimbi, to Caragabal, 42 miles, and it receives £420 per annum. The "white line" would reduce the traffic between Clifton and Thuddungra, assuming that a road were made from Thuddungra to Burrumunda. I would also point out that I have in view extensive repairs between Clifton and Thuddungra, which would be abandoned were the "white line" adopted. At the present time £715 is available on the Loan Estimates for the bridge over Burrangong Creek, at Clifton, but were the "white line" constructed, that bridge might be made on the proposed road between Burrumunda and Thuddungra over the same creek.

S24. What would be the saving on the whole of the line? Whilst there would be reductions on some of the roads, the railway would necessitate the opening up of new ones, so that I think things will be counterbalanced.

S25. In the event of the railway not being constructed between Koorawatha and Grenfell, have you taken into consideration the desirability of constructing a road from Grenfell to Koorawatha? There is at present an unclassified road, which is in the district under the officer at Cowra, which leaves Koorawatha, and comes out at Kelly's Creek. The officer at Cowra has told me he thinks that will be a very desirable road. He anticipates a very heavy traffic upon it.

S26. Have you any idea of the cost of the construction of that road? No.

S27. We have had evidence to the effect that it would cost about £14,000? Of course, it would be a macadamised road for that. It might be cleared and made suitable for traffic for a smaller sum.

S28. In the event of either one line or the other being constructed, a road would still be necessary to enable farmers to bring their produce to market? Yes, to a greater extent than at present. In the event of the "white line" being constructed, and a station established at Bulla Creek, a road is feasible, and I think would be easily constructed from Burrumunda to Jerrybang, which would intercept a road running from Brundah to Jerrybang or Brundah to Monteagle. It might further be extended to landra and catch the traffic on the road from Young to Bumbaldry. Between Bumbaldry and Monteagle the road is not good, and is not vitally affected by the construction of the line. If the country is going to be developed by a railway, the design of the roads ought to fit into it. Instead of running parallel to the railway they should be made feeders to it.

S29. *Mr. O'Connor.*] Do you know the Bland country? Yes; it is extremely flat, with sticky soil, and is subject to floods. I have been from Williams' Crossing to Wyalong. From information I have gathered the country about Williams' Crossing is subject to inundation in wet weather.

S30. *Chairman.*] Do you know the trend of the traffic in the district? Yes, fairly well. In laying down lines to define the traffic which Young gets to the north and the west, I should say that the road from Stockinbingal, passing down the Bland to Marsden, would fairly well be the western limit of that traffic. The northern limit of the Young traffic would, in my opinion, be extended far enough north by taking the road from Grenfell to Marsden. These are the utmost limits of the Young traffic. The railway station at Cowra, and the line from Cowra to Young, furnish the competition in the northern and north-eastern portion of the Young district. The trade of the country lying immediately west from Grenfell, and possibly some distance south from Grenfell, might reach Cowra instead of Young. It is clear that Koorawatha and Monteagle, and such places, by their contiguity, would also eat into the trade. Of course, the importance of a town with regard to trade is always felt. People very frequently deliver goods in centres of population which furnish them with opportunities of getting return goods, and for other incidental reasons which must be known to everybody.

S31. If a railway reaches Grenfell from any direction, what will be the limits of the Young trade? In my opinion, taking into consideration the rates of carriage, the traffic would split between Bulla Creek and the Tyagong.

S32. If a railway is built to Grenfell, will the Bimbi traffic go to Grenfell or to Young? I think it will go to Grenfell, because it is a better road.

S33. What is the distance from Bimbi to Grenfell? Twenty-four or 25 miles.

S34. What is the distance from Bimbi to Young? About 32 miles.

S35. If a railway be in Grenfell and a railway in Young, would the Bimbi traffic make Grenfell or Young? It would make Grenfell, I think.

S36. Do you take into consideration the fact that, once in Young, goods are carried cheaper to Sydney than from Grenfell? Of course, the railway carriage will be greater from Grenfell.

S37. Then the Bimbi traffic becomes doubtful, anyhow? It does.

S38. North of Bimbi the traffic would go to Grenfell? Yes; if a railway be in Grenfell, it appears reasonable to suppose that a line going east from Bimbi, and following along the watershed between Bulla and Tyagong Creeks, would be about the division of the traffic north and south. With regard to the western portion of the district, if a line were taken fairly well direct from Bimbi to West Bland, including Marsden, it is probable that the Marsden traffic would reach Grenfell rather than Stockinbingal. I have already explained that the "white line," inasmuch as it would save carriage to the large bulk of the western trade, would be the best line to construct.

G. Edmund Spark, Young, sworn, and examined:—

S39. *Mr. Fegan.*] I believe you represent Mr. W. S. Millard, saw-mill proprietor and general merchant? Yes.

S40. How long has Mr. Millard been here? Twenty-five years.

S41. Will you give us an idea as to the direction of your trade? We trade right round the district—right on to the Bland.

* 3 (a)—F

G. E. Spark.
26 Feb., 1898.

842.]

- G. E. Spark.
26 Feb., 1898.
842. Where do you get your pine timber from? We get it drawn from Bimbi. For some years past we have had considerable difficulty in getting logs to saw. We have a very large plant for sawing logs. Owing to the dryness of the weather and the state of the roads we have not been able to get logs to keep our machinery fully going. That is due to the distance we are from the timber. If a line were constructed from Young to Grenfell we should be able to get logs from both sides of it, and that would enable us to keep the plant going.
843. Have you any idea what your timber last year amounted to? The sales were about 200,000 feet superficial. If we could get the logs brought from either side of the line we could do with 500,000 or 750,000 feet superficial.
844. In other words, your plant can do three or four times more than it is doing at present? Yes, more than that.
845. I understand that you not only manufacture furniture but that you go in for the building trade? Yes.
846. Does your furniture timber come from Sydney? Yes.
847. What is the freight? If we get it in large quantities—10 or 12 tons—it comes at the miscellaneous truck rate—the rate for building girders—a rate plus 50 % and minus 10 % for furniture timber.
848. What is the cartage for timber from Bimbi to Young? The cartage of sawn timber is sometimes 3s. and sometimes 3s. 6d. per 100 feet. That is what we pay on top of the mill price.
849. Railway communication with Grenfell *via* Young would, I presume, materially assist your establishment as well as give employment to a large number of hands? Yes; and it would also put us in a position to supply timber between Young and Harden.

Reverend William McGrath, Young, sworn, and examined:—

- Rev.
W. McGrath.
26 Feb., 1898.
850. *Chairman.*] I believe you are a priest in holy orders in the Roman Catholic Church? Yes. I have resided in Young for eighteen years, and have a full knowledge of this district, and of Grenfell as well. I had charge of Grenfell for four years. I desire to submit reasons in favour of a direct line from Young to Grenfell. One of the principal reasons for the construction of the loop line from Harden to Blayney was that it might be the means of relieving or lessening the traffic over the Blue Mountains. As a matter of fact, since this loop line has been constructed, coal from Lithgow has been sent to the Demondrille Junction by this line, and on to Victoria. Passengers also from Orange, Molong, Parkes, Forbes, Wellington, Dubbo, and Bourke, travel by this line when going to Victoria. If a line were constructed from Koorawatha to Grenfell and Wyalong all the passengers and traffic would come by that line over the Blue Mountains, thus defeating the principal object in view in making the loop line from Harden to Blayney. There is no population between Koorawatha and Grenfell, excepting three squatters, a boundary rider, and one farmer named Barr. The "white line," on the contrary, would pass through a populous district, and would run within 9 or 10 miles of Thuddingra and Bimbi; consequently it would benefit a very much larger number of people than a line from Koorawatha. In my opinion a line from Koorawatha to Grenfell would not pay expenses, and the "white line" in all probability would.
851. Are there any selectors between Brundah and Grenfell? There are a few, but the area to which I have referred is east from Grenfell. From Brundah going west to Grenfell there is a farming population.
852. You think that the Grenfell traffic should go by the Southern Line, and not by the Western Line? Yes.
853. You contend that the route from Young to Grenfell is well populated, and that the route from Koorawatha to Grenfell, excepting for the first few miles, is not so well populated? That is so.
854. Do you think that is a fair statement of the case? There are a few men on the halves system on Mr. Greene's run, but they may be there to-day and gone to-morrow.
855. Is there not a considerable amount of labour expended on cultivation between Koorawatha and Grenfell? There is.
856. Considerable work has been done there? Yes, on Mr. Greene's station.
857. Do you believe the halves system is likely to be permanent? I do not think so, from what I have heard.
858. Would you make a definite statement about it? I could not be certain; but the report is that the country will be turned into a sheep-walk.
859. Can you show logically why it should be? Yes, if it paid better.
860. Do you think it will pay better to let the country revert to pastoral occupation than to go on with agricultural settlement? I could not give a direct answer to that question. In my opinion, the smaller settlement, in the absolute ownership of selectors, is a more wholesome settlement than any that obtains under the halves system. I base my opinion with regard to a Koorawatha-Grenfell line not paying on an intimate knowledge of the district.

Arthur James Taylor, farmer and saw-mill proprietor, Burrangong, sworn, and examined:—

- A. J. Taylor.
26 Feb., 1898.
861. *Mr Clarke.*] What is the extent of your holding? Six hundred acres.
862. What area have you under crop? I have 550 acres under wheat.
863. How far do you reside from Young? Ten miles on the Grenfell road.
864. Where do you find your market? Young.
865. If a line were constructed from Grenfell to Young, would there be a general increase of land under cultivation? Undoubtedly there would. Wheat growing is only in its infancy at present; there is a good deal of clearing now going on, and we have suitable soil for cultivation.
866. Is the quality of the soil on the "white line" very good? Yes. Three parts of the "white line"—from Young to Grenfell—are very suitable for cultivation.
867. Have you any idea of the character of the land on the proposed line? Yes, I have been through that country. Some of it is very good, and some of it is very bad. The land lying close to the Tyagong Creek is of a very sandy nature and has no body in it. On the hills about the same country the soil is very good.

868. Is there a larger area of good land on the Koorawatha line than on the "white line"? There is a A. J. Taylor. larger area of better soil for cultivation on the "white line."
869. What are the prospects of either of the two lines paying? My idea is that the "white line" would pay far better than the Koorawatha line. 26 Feb., 1898.
870. Why do you think so? The holdings on the "white line" are substantial. They are owned by the farmers. The holdings on the other line are temporary. A man who has settled on the land has his money and interest in it for years to come, whereas people on the halves system only make agreement in the first instance for three years.
871. Do you consider the halves system is not likely to continue? I could not say that; but it has not as good a show of lasting as has permanent settlement.
872. Would the construction of the "white line" have any effect on the Bland trade? Very much so.
873. Where would the Bland traffic go? The Bland traffic would certainly come to Young if a railway were constructed. Most of it comes to Young at the present time, there being no suitable market at Grenfell, and no markets behind.
874. If a railway were constructed from Koorawatha to Grenfell, would it capture the Bland trade? I do not think so. The haulage to Sydney would be so much further and so much more expensive.
875. What do you consider the lowest possible price at which wheat would pay per bushel? It depends entirely on the crop you get. For instance, if I put in 100 acres and get an average of 20 bushels to the acre, which is possible, it could be made to pay at 1s. 6d. per bushel at market.
876. What is the average yield, taking one year with another? Twelve to fourteen bushels.
877. Taking that as an average, would it pay at the price you have mentioned? It would in preference to sheep growing.
878. How do you work it out? My experience is that with careful farming with sheep a good return is 5s. an acre. The other return would be nearly three times that amount.
879. But have you not a great deal more labour in the cultivation of wheat than in looking after sheep? Yes, a little more, but that is not a very great consideration.
880. How much would it cost to cultivate an acre, independent of clearing? It can be done, including ploughing, finding the seed, putting it on, and getting it into the bags, for about 10s. an acre.
881. That means that you will have 10s. an acre to the good? Yes.
882. The difference between 8s. an acre for wheat-growing and 5s. an acre for sheep-rearing is 3s.? That is so.
883. Are you sure that your figures are correct? Yes, I may say that instead of reaping we strip. It is the cheaper way of taking it off. Of course, we lose the straw, but under present conditions it is not valuable to us. If we had a line close to us, and could send the straw to Sydney, no doubt we should cut with binders and save the straw.
884. And that would entail further expense? Yes, a little more.
885. You are perfectly sure that 10s. an acre would cover all expenses from the time the wheat was put into the ground? Yes.
886. Does the 10s. include the cost of seed? Yes; and ploughing, harrowing, taking off, and putting into the bags.
887. Are you the proprietor of a sawmill? Yes.
888. From where do you get your timber? Bimbi and Grenfell.
889. What description of timber do you get? Pine, ironbark, hardwood, and white box.
890. What is your experience of the cost of getting the timber? Sometimes we get the logs reasonably; at other times we cannot get them at all. It depends entirely on the weather. If it is a dry year the teams have to carry feed with them, and we have to go short of logs. If we had a line we could have a constant supply, and could get our supply from a longer distance.
891. Are the supplies about Bimbi likely to prove permanent? Yes; there are some very good forests which are likely to last for a considerable number of years.
892. Do you supply other portions of the Colony than Young with timber? Not at present, but if we had a railway I should have an opportunity of sending it to other parts.
893. Would the "white line" be more suitable than the other? Much more so.
894. Do you think the halves system is likely to remain permanent? Under the present state of affairs I do.
895. What do you mean by the present state of affairs? The working class seem to be more occupied in wheat-growing at the present time than anything else.
896. I suppose that so long as it pays the people who are working at it they will continue at it? I should think so.
897. Do you think the system is likely to exist only for a few years, and then for the farmers to go into grass again? No; I think it is likely to be one of the biggest farming centres of New South Wales, and the system is likely to be permanent so long as the conditions are fair.
898. Do you think the halves system is better than the system of farmers working the land on their own account? I do not know, but it suits the people who do it, because they have not the money with which to take up land for themselves. Most of the land is already taken up, and people who take it on the halves system have not the chance to do otherwise. There is no doubt that the man who is able to work land on his own account gains the most.
899. Do you think those who have worked on the halves system have made money out of it? Yes; I can say they have done very well up to the present out of it.
900. Then you do not agree with the opinion that the system is likely to be only temporary? I could not say. It depends entirely on the affairs of the country in general. I think it is quite likely under the present circumstances to be lasting.
901. How long will the lands under cultivation of wheat continue without being rested or lying fallow? It depends on the nature of the soil. The soil I occupy and work will go for six years without any spell or manuring.
902. What do you propose to do at the end of the six years? To spell it for twelve months or two years, and run sheep on it.
903. Would the natural grass come up again? Yes; as soon as you stopped ploughing the land it would. It would increase in growth year by year.

- A. J. Taylor. 904. Is it not the practice in some parts of the district to sow lucerne? Yes; it pays anyone who can afford it to put down lucerne. It seems to be very profitable.
- 26 Feb., 1898. 905. If the land remained for a few years under lucerne and was then ploughed up again, would it be fit for wheat? Yes.
906. How many years would it go then? It would go then for another five years with wheat.
907. Then under that system the land would be likely to remain in good condition for almost any length of time? Yes; provided the soil is good.
908. *Chairman.*] Did you hear the evidence of Mr. Rossback with regard to the traffic which comes to Young? Yes; three parts of the traffic comes to Young at the present time, and that same traffic would be continued and greatly increased.
909. Then the statement Mr. Rossback made with regard to the traffic coming within certain boundaries to Young is correct? It is.
910. Do you know the various parts of the district from which the wheat comes to Young? Yes.
911. Why does the wheat come to Young? It is the best market at the present time. It comes partly to be milled and partly to be sent out of the district as flour.
912. Does it all go out as flour? It has not done so this year, but in other years it has done so.
913. Would it all go out as flour if you had a sufficiently strong milling-plant? That I could not say. If there were two more mills here, there would be sufficient wheat to keep them going.
914. Do you know the various localities from which the wheat comes? Yes, most of them.
915. Is there a very considerable area of land fit for growing wheat yet uncultivated? There is.
916. Therefore the possibilities of the development of the Young district are considerable? Yes; I may say that farming along the "white line" is only in its infancy at present. A number of people have settled on the land in the expectation of the "white line" being constructed? When it is constructed, three parts of the country will be opened up.
917. Have you anything further to say? I should very much like to see the "white line" constructed. I only work half my time as a sawmiller, and if we had a railway it would enable me to keep my plant going the whole of my time.

James Woodridge, carrier, Young, sworn, and examined:—

- J. Woolridge. 918. *Mr. Tegan.*] How long have you been in this district? About thirty-four years.
- 26 Feb., 1898. 919. Do you own any land? No, but I have been a land holder for fifteen years.
920. What was your area? About 300 acres or 400 acres 6 miles from Young.
921. Did you use it for cultivation? Yes, I grew wheat.
922. What were the conditions of your holding? Conditional purchase.
923. Why did you give it up? I sold out to go into business in town and thought it would be more profitable to do so.
924. Have you been a carrier since then? Yes.
925. How far does your trade extend? It depends; sometimes out on the Bland; also to Lake Cowal, about Bimbi, and elsewhere. The principal trade is on the Bland.
926. What do you principally carry on the Bland? Wool, wheat, and timber. I draw a good deal of timber from Bimbi.
927. Do you draw more timber than wheat or wool? Yes.
928. How far is it from here to the Bland? To the edge of the Bland it is about 22 miles.
929. Has the trade fallen off principally on account of the great distance you have to travel to obtain the timber? It has fallen off a good deal for want of rain. If we had a better rainfall we should have more grass and water. Of course the roads might be heavier, but we can do with that better than we can with a drought.
930. I suppose that whilst the seasons are so dry, carrying does not pay you so well on account of having to buy forage? That is so.
931. What do you charge for carriage from Bimbi? Three shillings and sixpence and 3s. per 100 feet, superficial. Wheat, of course, we draw by the bag.
932. I suppose you bring wheat to Young? Yes. The furthest point from which we draw wheat is 40 miles—around Bimbi.
933. Do you think if a railway were constructed to Grenfell by either route, you would draw wheat from Bimbi? No.
934. Where would you draw it to? It would be carried to somewhere between Young and Grenfell—it depends on where the platform station is.
935. Then there would not be much coming to Young from Grenfell? Not a great deal.
936. How much a bag do you get for wheat from Bimbi? Sometimes 1s. 3d. and sometimes 1s. 4d.
937. Making wheat almost impossible to grow? That is so.
938. A farmer would not get much out of it at that rate? No.
939. Do you carry any wheat from Bulla Creek? Yes.
940. What is the charge? Some give 7d., and some 8d. a bag. The charge about Tyagong is 8d. a bag; from Burrangong Creek, 6d. a bag; and a little further towards Young, 4d. a bag. It depends on the distance.
941. What sort of land did you hold? Very good land.
942. What did you grow? Wheat, principally.
943. What did you get from the land? I have had as much as 20 bushels per acre from it. The average would be about 15 bushels.
944. Can you tell us what it would pay a farmer to grow his wheat profitably? It would depend on the crop. I reckon that if a man can get 15, 16, or 20 bushels per acre it would pay him well at 3s. per bushel.
945. Would it not pay him if wheat went lower than that? He might make a living from it. I consider 3s. a bushel to be a fair thing.
946. You would not like to farm it at 2s. 6d. a bushel? I might if I had plenty of land under cultivation. The more land you have the less price you can charge.
947. What is your opinion, as to where the better land lies? There is no doubt there is good land at Koorawatha, but there is also some bad land.

948. Do you think it is to be compared with any in Grenfell? No; it is nothing like the same country. J. Woodridge.
949. Do you know the district from Young to Grenfell? Yes, it is as good cultivation land as any you can find in the Colony, so long as it gets a fair amount of rain. The country from Koorawatha to Grenfell cannot be compared with the country from Young to Grenfell. 26 Feb., 1898.
950. What kind of grazing country is it between Young and Grenfell? As good as you can find anywhere with regular rain.
951. How long is it since you were at Koorawatha? Two or three years; but I am often backwards and forwards from there.
952. Have the features of the country changed within the last three or four years? Yes; it seems to have gone down altogether for feed. It is worse than it was four or five years ago, and is less productive. This year the wheat was very good, but there has been no wheat there during the last two or three seasons.
953. Has the country between Young and Grenfell improved? It is not improved in one sense, because of the want of rain, but there is more agriculture between Young and Grenfell than there was three or four years ago. More land has been cleared, and more wheat has been grown. Thousands of additional acres are being put under cultivation every year.
954. Do you do much carrying between Koorawatha and Grenfell? Not now; I have not been on that route for years.
955. Then you will not give an opinion as to the grass there? No.
956. Is there not very little grass at present between Young and Grenfell? Yes, there is very little grass at present.

James William Slatyer, coach proprietor and carrier, Young, sworn, and examined:—

957. *Mr. Clarke.*] Have you any idea as to the value of the land on the route from Grenfell to Young, and on the route from Grenfell to Koorawatha? I cannot give you the value as a speculator or valuator, but, as far as appearances are concerned, the "white line" is in the midst of the best land on this side of the Lachlan and of the Temora line. J. W. Slatyer. 26 Feb., 1898.
958. Is the land on the "white line" better than that on the proposed line? Yes; when you come from the Lachlan River in this direction and get on to the Koorawatha route—Iandra and thereabouts—you commence to get into what you may call fairly good country. The further you come this way, whether it be southerly or south-westerly, you get into more good country. It is the good country which the "white line" runs through. I have been travelling about these parts since 1862.
959. Do you know anything as to the population on both routes, excluding the towns of Grenfell and Young? The population on the "white line," both right and left, is far greater than on the Koorawatha route. I have been out to Iandra, and, from what I know of it, there is a population there of men in the ploughing season, but after the ploughing season is over they return to their homes. They are not stationary. They are not the same as the population on the "white line" who are established there.
960. Do you consider there is likely to be less permanent settlement on the proposed line than on the "white line"? Yes.
961. What is the prospect of trade on the "white line" so far as the Bland district is concerned;—do you think it would still come to Young if the other line were constructed? The Bland trade out as far as Curraburrama would come to Young. No doubt the Koorawatha and Grenfell line would tap some of the Bland trade, but it could not interfere with it anything like 30 miles out in a westerly direction. Of course, anything north-west from that the Grenfell route would get.
962. Is it doubtful whether the Curraburrama trade would come to Stockinbingal or Young? It would depend on the state of the roads.
963. Have you any further statement to make? I have read some of the Koorawatha evidence and should like to rebut it. Mr. Wood infers that if a line were made between Young and Grenfell the Grenfell people would get their goods *via* the west to Cowra. He quotes the trainage of the first, second, and third class goods correctly. He says nothing about the special classes. In addition to that, he puts on £1, carriage from Cowra. In the third-class goods he shows that by carrying by teams from Cowra, and getting the goods from Sydney, there would be something like 6s. a ton saved in the transaction. As a matter of fact, that price per ton for carriage really refers to what teamsters called "back carriage" in the wool season. When teams come in from the back country they are glad to take anything rather than go back empty. It is not the standard carriage. I understand Mr. Wood to infer that if the line is made from Young to Grenfell the Grenfell people will, to save their pockets, get their goods to Grenfell with teams from Cowra, as usual. If that is what he means he is quite wrong, because the land-carriage would swamp the whole, as the trainage from Sydney, *via* the South, would be a considerable amount under it. It is all very well to quote these high-classed goods, and not quote the special classes.
964. Have you heard Mr. Taylor's statement as to the advisability of milling as against exporting wheat? Yes; I concur in his opinion. The local manufacture of the article gives a great impetus to labour in the district. Even if the flour has to go across the water there is less risk in carrying flour than in carrying wheat. If you put a bag of flour into the sea you have a better chance of getting something from it than you would have if you put a bag of wheat into the sea, because the whole of the bag of wheat would be destroyed.
965. Did you ever carry on the road from Cowra to Grenfell? I have taken families along there.
966. How did you gain an intimate knowledge of the routes? I have been connected with road carriage for a number of years, and I have watched these matters. Of late the goods have gone principally to Cowra. Occasionally a load comes to Young for Grenfell. I know from the carriers that the rates between Cowra and Young are no different from what they were between Young and Grenfell. I may state that the Cowra to Grenfell road is the worse road of the two.
967. How long ago did you carry from Young to Grenfell? I suppose it is two years since there was any amount of it, but every month or so there is a load going from here to Grenfell.
968. Do you refer to store goods going from Cowra to Grenfell, or to wheat or wool coming from Grenfell to Cowra? No; wheat and those things are lower as a rule, because they are taken as return carriage.
969. Can you say what is the rate for the carriage of wheat and wool for 30 miles? I know what used to be the return carriage from here to Harden, 20 miles, and that is 10s. a ton for flour. Things have been cut down since then, and I presume it would not be less than that now for a distance of 30 miles.

Alfred Aston, farmer and grazier, Arramagong East, sworn, and examined:—

- A. Aston. 970. *Chairman.*] Where is your holding? About 13 miles from Grenfell, and about 22 miles from Young.
 971. *Mr. Fegan.*] What is the total area of your holding? About 7,000 acres.
 26 Feb., 1898. 972. How much have you under cultivation? I had about 400 acres last year.
 973. With what result? The wheat went three bags to the acre, and the hay one ton to the acre.
 974. Was that a good crop considering the state of the season? Yes, it was a fair crop. I may state that we have had about three and a half years' drought.
 975. How long have you been cultivating your land? Eight or nine years.
 976. Have you allowed it to rest during that time? I may state that the land the Committee went over yesterday is equal to any in the Colony, and gives as good results.
 977. Are you in favour of the construction of the "white line"? Considering that the line would come within 3 miles of my place I ought to be. It would cut through two of my paddocks, and instead of having my property in three pieces I would have it in six.
 978. If the "white line" were constructed, would you put more than 400 acres under wheat? Yes; I have 1,000 acres ready for wheat now.
 979. Do you know of anyone who would follow your example? I think the Bank of New South Wales at the Kikiamah Station, and the Union Bank, which holds about 30,000 acres, would do the same. They have a lot of land cleared this year.
 980. Would that land compare favourably with yours? There is only the Tyagong Creek between us, and I do not see how it can vary very much.
 981. Where do you send your wheat? To Young, when I can.
 982. Where did you send it last season? To the mill, at Young.
 983. What did it cost you to bring it here? One shilling per bag.
 984. How many acres will you have under crop next year? 400 acres in one paddock, and a little over 500 acres in another. Then there is another paddock of 48 acres. That makes close on 1,000 acres.
 985. Do you know anything about the mining development of the district? I am only sorry to see the country lying dormant, as it is.
 986. Do you think the country is a good one for mineral development? I am sure of it. There is stuff here which, I think, will go half an oz. to the ton.
 987. Do you think the construction of a railway will give an impetus to the mining industry? I think it will.
 988. Do you know anything about the Goulburn valley? I have seen a little of it.
 989. Have you worked in it? No; but I have crossed it with cattle.
 990. Do you think that you can compare your land, and that surrounding your holding, with the Goulburn valley? Yes, for a distance of 20 miles. In the flat country to Thuddungra, and to the Weddin Mountains, as far as you can get, the land is not to be surpassed.
 991. Taking all things into consideration, you think the "white line" would materially assist the prosperity of the district? Yes.
 992. How far have you to sink for water on your estate? We have three wells averaging 8 to 9 feet deep—that is on the Burrangong Creek. I reckon that we can supply all the stock in the country. The well you saw yesterday, at one time watered about 2,600 sheep; but this year it will only water about 1,200 or 1,400 sheep. It has gone back a bit.

William James Hills, grazier, Young, sworn, and examined:—

- W. J. Hills. 993. *Chairman.*] Where is your estate? East and west of Young.
 26 Feb., 1898. 994. What area have you adjacent to Young? 2,200 acres within 4 or 5 miles east of Monteagle platform. I have also 780 acres, 5 miles from Thuddungra, on the west of the "white line."
 995. How far are you from Young? 25 or 26 miles.
 996. Supposing the "white line" is constructed, how far will you be from it? 14 or 15 miles.
 997. Therefore, it would save you about 11 miles carriage each way? Yes. I may say that if the line is constructed, I shall be able to put a larger portion of my land under wheat, as the carriage will be cheaper. I have been in communication with a number of farmers about Thuddungra, and I can state that they will do the same.
 998. Do you prefer the "white line" country to the other? Yes; it is far superior. Running north of the proposed line there is a lot of No. 10 wire-grass, and the only way to get rid of it is to plough it up. Country has been offered to me in that direction at about 6s. per acre.

Herbert George Makepeace Thackeray, farmer and grazier, Clifton, sworn, and examined:—

- H. G. M. Thackeray. 999. *Mr. Clarke.*] How far is Clifton from Young? Seven miles, on the "white line."
 26 Feb., 1898. 1000. What area do you hold? 11,200 acres.
 1001. How many acres have you under cultivation? I had 1,000 acres last season.
 1002. Do you farm on your own or on shares? Principally on shares.
 1003. If the "white line" were constructed, would you increase your area under cultivation? Yes, by 1,000 acres.
 1004. Would the line from Koorawatha to Grenfell be of any use to you? No, I am too far away from it.
 1005. What is your average yield per acre? Last year, which was a bad one, I averaged 18 bushels. I should say that the general average would be from 8 to 10 bushels, taking good and bad seasons together.
 1006. What is your opinion of the halves system? I think it is good for both sides. It is good for us. We clear the land, and the farmers repay us in wheat for the clearing. When the land is played out we can lay it down in grass—principally in lucerne and burnet. As long as the lucerne and burnet lasted we should graze, and when that was played out we should put the land under wheat again.
 1007. Is the halves system likely to be permanent? I think not. I have 10,000 acres. As long as I can keep going I shall give my farmers fresh lands as theirs become worn out. If, at the end of a certain time, I have exhausted my land and the lucerne is growing sufficiently well I should not think of breaking it up again. If the lucerne and burnet deteriorated I should turn it over again.

1008. Is a good farmer likely to let the land run out? No. It is different with a farmer working on his own land, where he has to do it, and where we have a quantity. It would pay us to get the land cleared. We could make almost as much per acre if we got the lucerne to take well, and we should not have the worry and bother of farmers.

1009. Then you would let it go back to grazing? Yes.

1010. Would that pay you as well as growing wheat? Yes, provided the country were suitable for lucerne. If not, of course we should have to manure it.

1011. How long would lucerne and burnet grass last? The lucerne would last about seven years with us.

1012. And then you would have to re-plough it and re-plant it? Yes, or put it in with wheat, and then put it under lucerne again.

1013. In the event of the "white line" being constructed, would the trade of the Bland district come to Young? Yes; if the other line were constructed it would go to Bimbi.

1014. Where does the trade of the Bland country come now? Through Thuddungra into Young.

1015. Would the Koorawatha line serve the Bland better than the "white line"? I think not. I think the whole of the fat stock from the Bland would be trucked on the "white line" if it were constructed.

1016. Do you think the evidence you have given as to the land going back into the hands of the pastoralists in a few years would apply to some of the large areas in the Koorawatha district? I think so; in fact, Mr. Greene is the father of the business.

1017. I suppose that whatever proved the most profitable would be followed? Yes.

1018. Whilst some of the people might think that the land should be continually kept under wheat, with rotation of crops, you are of a contrary opinion, and think it would go back to the owners of the land for grazing purposes? Yes, provided the grasses are a success. We should make almost as much from it, and should have no worry whatever.

1019. Still, you would not employ so many people in connection with grazing as you would in connection with wheat? No.

1020. What would be the difference in number? About 20 to 1.

1021. Do you think it possible or probable that those who have large areas of land on the shares system might ultimately sell to the small farmers at a fair price? I think some of them would be only too glad.

1022. I suppose you would be glad to do it? No. I would not care to part with any, but if I had a large holding I think I should.

1023. In that case it would put a good many people on the land? Whilst men can get virgin soil on the halves system they will not buy parts of estates which are worn out or dirtied.

1024. Can you say how far the land, fit for cultivation, west of the "white line" extends towards the Bland? It would take in nearly to the east bank of the Bland, as far as Curraburrama boundary.

1025. Where would the produce of that district go to? To Young.

1026. What is the distance? Thirty miles.

1027. *Chairman.*] You use your land to get the most out of it? Yes.

1028. That is why you are letting it on the halves system? Yes.

1029. How many years do you think you will run it under wheat? As long as I can keep on giving the men new land. They will get about four crops off the land they have at present in about four years.

1030. Would it be dirty or exhausted at the end of four years? It would be dirty.

1031. Then you are going to put lucerne in, and have it under lucerne for a period? As long as the lucerne continues to flourish.

1032. Which you hope will be seven years? I hope it will be fourteen years. I will not break it up if the lucerne succeeds.

1033. Putting it under lucerne is essential to good farming? It is.

1034. If you can see 5s. an acre more by putting it under wheat will you leave it under lucerne? No, I will put it under wheat again.

1035. *Mr. Fegan.*] If the ground is good will it not give more than four crops to wheat? Yes.

Job Fowler, farmer and grazier, Coolagong, near Monteagle, sworn, and examined:—

1036. *Chairman.*] How far are you from Monteagle platform? 6 miles.

1037. How far are you from the "white line"? It runs through one of my paddocks.

1038. What is your total area? 10,000 acres.

1039. What have you under crop? 1,500 acres.

1040. If the "white line" is constructed will you increase your area under crop? Yes; if the "white line" were constructed, and a siding were built it would suit me better for what is grown near to it. Of course, where I live I should not use the "white line."

1041. Are you giving your land for the construction of the "white line"? No, but I will exchange for any Government land. On my place there is a small block which could be exchanged for an equal area. I would accept any access road in exchange.

1042. How far does the line go through your property? $1\frac{1}{4}$ miles.

1043. How long have you been growing wheat? For many years.

1044. Do you regard this as a good country for the production of wheat? Yes; extraordinarily good country.

1045. How long can you cultivate your land from its virgin state until you let it lie fallow? Personally, I do not care to take more than three crops off. Then I would let the sheep run on it for four or five years. After that I would plough it again, and then grow crops.

1046. Your reference to the giving of land was not contained in the statement made by the Railway League? No.

1047. Therefore we must add $1\frac{1}{4}$ miles to the length of the land mentioned by the League? Yes.

H. G. M.
Thackeray.
26 Feb., 1898.

J. Fowler.
26 Feb., 1898.

MONDAY,

MONDAY, 28 FEBRUARY, 1898.

[The Sectional Committee met at the Court-house, Young, at 10 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

The Sectional Committee further considered the proposed Railway from Koorawatha to Grenfell.

Sydney Bell, stock and station agent, Young, sworn, and examined:—

- S. Bell. 1048. *Chairman.*] Have you had any experience here in connection with bank matters? Yes, extending back to 1863.
- 28 Feb., 1898. 1049. Are you acquainted with the country between Young and Grenfell, and also with the country between Koorawatha and Grenfell? Yes. I understand that the proposed line starts a short distance from the township of Koorawatha, crossing Crowther Creek through Warrangong and Mr. Kinleside's property, and into Iandra; then crossing the Tyagong Creek to Grenfell. A portion of the country there, especially Warrangong and Kinleside's property, is, in my opinion, far better agricultural land than any other portion through which the line will pass.
1050. Going west from Koorawatha, through Warrangong, Kinleside's, and Iandra, the country is good? The best land is through Warrangong and Kinleside's property. I do not think the land is as good for agriculture after you leave Kinleside's. Again, north and north-west of the line the country is much more broken, and there is less agricultural land there than there is on the south side. Mr. Geisow, who surveyed the line from Demondrillo, after finishing the survey, came to me and asked me to give him an idea as to the route he should adopt from Young to Forbes. He brought the maps to me and I pencilled out what I thought was the most practicable route for the railway. On his return from Forbes he said I had reduced the work for him by at least three months, as he had been able to follow my suggestions very closely. In only one instance had he occasion to deviate from the line I had marked out.
1051. That is the "white line"? No, almost the same as the "white line." There is a little deviation from the Tyagong into Grenfell. I have been through that country before there was any fencing or improvements on it, and am very well acquainted with the country from here as far as Lake Cargollico. From the junction of the line to Grenfell from Young—if carried out—about Queen's Crossing, 5 miles from here, the line passes down the valley of the Burrangong Creek, and I am told by some of the old farmers from Victoria that the land in the valley there is quite equal to the land in the Goulburn Valley. As regards the Young to Grenfell route, there are very few acres between here and Grenfell which are not fit for the plough.
1052. Can you make a comparison between the Koorawatha and Grenfell route and the Young and Grenfell route in regard to the agriculture of to-day? There is no question that on Koorawatha, Iandra, and Brundah there is a larger extent under cultivation at the present time. Preparations are being made for a considerable extent of agriculture on the "white line," and to the westward. Again to the westward, on the stations owned by Mr. Burrett, and some others, there is a very large tract of first-class agricultural land—as good as you will find anywhere in the district. It is Crown lands, and it will, before many years have passed, be thrown open for selection. It is country which is intersected by the Burrangong Creek. One reason why more land has not been put under cultivation on the "white line" is that the roads leading into Young have not been as good as in other parts of the district.
1053. What is the population on the two routes? The population on the "white line" is larger than that on the proposed line, but at times—such as harvest times—the population on the proposed line would be a little greater. It is, however, of a migratory nature. I may say I am thoroughly acquainted with all the country on this side of the Lachlan, and I think the views of the District Engineer for Roads as to the Bland country are fairly accurate.

Thomas Chapman, manager, Co-operative Flour-mill, Young, sworn, and examined:—

- T. Chapman. 1054. *Chairman.*] Have you seen the Appendix to the statement of the Chairman of the Railway League? Yes.
- 23 Feb., 1898. 1055. Would 319,000 bushels of wheat come off 22,000 acres of land, or an average of 14 bushels to the acre? I believe the area would be larger. I would give the average at 12 bushels. That would make the acreage 25,000 acres.
1056. *Mr. O'Connor.*] How long have you been in Young? Since 1880.
1057. Do you buy wheat very largely? Yes; we have bought the chief part of the wheat which has been sold during the last eight years.
1058. Do you buy wheat from Grenfell? Yes; the Grenfell trade is a very considerable item. In fact, some of the best farmers live at Grenfell, and we have a preference for the carefully-grown wheat of Grenfell as distinguished from the halves wheat.
1059. Have you bought wheat from the growers on the "white line," excluding the large estates? Yes; we have reckoned up 2,500 tons from there last year. Since the mill has been established it has increased its customers, and last year was a record for the district, namely, 2,500 tons exclusively from the settlers along the "white line" and the Bland.
1060. What is the capacity of your mill? The capacity for grinding is 320,000 bushels per annum, or a ton an hour.
1061. Do you think there would be room for another mill or two here? According to the amount of wheat grown last year and this year there is plenty of room for extension.
1062. Have you any preference for different wheats? Yes; a decided preference for three classes of wheat which I encourage the farmers to grow with all the persuasion of which I am capable, namely, the Purple Straw, the Tuscan, or the White Lammas.
1063. Is there any difference in the production of the man who owns the land himself, and who employs labour, and the man who works on the half-share system? There is a marked difference. The wheat grown on the halves system generally shows signs of careless cleaning, careless reaping, and careless bagging. I have a decided preference for the wheat that comes from the owner who cultivates the ground himself. Our books show the treatment of the wheat grown on the halves system to be more severe than the treatment of the wheat purchased from the working owners.
- 1064.

1064. Would not that be removed by greater diligence on the part of the men? Yes; but the lower prices offered for the halves wheat do not seem to increase the spirit of improvement as they should do.
1065. As a matter of fact, then, they have to pay the penalty by taking a lesser price? Yes; there is a penalty, either in less price or deductions per bushel.
1066. What have you paid for wheat during the last twelve months? 4s. 6d. to 3s. per bushel. The minimum was 3s. per bushel.
1067. What is the price at the present time? It is for sale at 3s. 6d. in the town now.
1068. Is that clear cash? Yes.
1069. What was the price on the 1st January last? 3s. 9d. per bushel. Our chief stock was purchased at that price.
1070. *Chairman.*] What is the rate of railway carriage from Koorawatha to Young? Three shillings a ton, or about 1d. per bushel.
1071. How much more could your mill crush at present? It would have to be enlarged to do more. The sellers of wheat who come to me to make their sales—chiefly from the Bland—say they are too far away when wheat is cheap to cultivate at a profit, and their exertions are weakened by the lack of cheap carriage to market. That is the complaint of the Bland people. If the "white line" is constructed, I feel sure that the wheat from the large estates will come down the "white line." The townspeople of Young have endeavoured to make the buying capacity of the mill large enough for the district; but the development of cultivation has overreached that for the moment, and something will have to be done to meet the case. Any wheat grown on landra would find its way down the "white line," because of its close proximity to the railway siding. The Grenfell trade to us is about 300 tons of flour; we sent that from here to there last year; and the Grenfell trade is an item in our business worth considering. The old line would bring them to their natural market, which the people have tried to cultivate, and would place within reach of the Grenfell and Bland people the markets of Young, Murrumburrah, and the market of Goulburn, which is almost as large as the two towns put together, whilst on the other line there is only one market worth considering, and that is Bathurst. The amount of trade, or the amount of nearness to the selector, would be increased by a line going from Young to Grenfell to a greater extent than it would be if the proposed line were constructed. It would bring more settlers under its influence, enable them to cultivate more largely than they do, and bring the land suitable for wheat-growing under cultivation.
1072. What is the cost of taking a ton of flour from Young to Grenfell? Fifteen shillings.
1073. What is the cost of taking a ton of flour from Young to Koorawatha by rail? Five shillings—that is within a copper or two.
1074. Will the future export trade from Australia be done in wheat or flour? Can you name the country to which it will be exported?
1075. Say England? It would be better to export wheat there on account of the long journey and the close confinement of the produce when it is stored away.
1076. Does wheat carry better than flour? Yes, because of the fibre covering the kernel. The flour would absorb any odour that was near to it.
1077. Do they export the grain in countries which do their exporting mostly by sea? Yes; the Southern States of America and California, for instance. The flour from California is put into wood, and that protects it from odours in the holds of the ships; but the chief thing which is encouraged in the old country is the importation of wheat. There are wheats from different countries—India, Russia, River Plate, Manitoba, and San Francisco—which are of different classes—different in gluten and strength, and they use them to blend to make flour suitable for different districts. There is one class of grain which finds its way into Liverpool, and a different kind of grain which finds its way into London. The supply is affected by the question of taste and closeness to markets.
1078. If Australia exports eventually to countries which can only be reached by a long sea voyage, will that export be mostly in grain? I think so. I may say that Australia could not adopt the same means of exporting flour that America adopts. They have not the material and the timber with which to cover it so as to insulate it from the odours in ships' holds.
1079. How long would wheat retain its strength? If it were stored under the same conditions that animal life would be stored, it might last for an indefinite length of time. It would require clear ventilation. Otherwise it would breed insects and weevils to such an extent that in a year or two only the bran would be left.
1080. Would it last five weeks? You can store wheat in a healthy locality for five years. I once had charge of a mill which produced sixty bags an hour, and we ground many cargoes of wheat which had come long journeys—some from India and some from the River Plate—and in all cases, when investigation took place, the faults which existed all pointed to damp shipping. If wheat is shipped dry it will keep for an indefinite period, but if it is shipped with more moisture than its surroundings contain it will go bad.

William McIntosh, railway station-master, Young, sworn, and examined:—

1081. *Chairman.*] How long have you been at Young? About four years.

1082. Have you any returns to present? Yes, as follows:—

YEARLY Return of Traffic at Stations.

Date.	Goods Traffic.			Live-stock Traffic.								Wheat— No. of Bags outwards.	Wool— No. of Bales.		Coaching.		
	Inwards.	Outwards.	Revenue.	Inwards.				Outwards.					Revenue.	In.	Out.	No. of Passengers.	Revenue.
				Horses.	Cattle.	Sheep.	Pigs.	Horses.	Cattle.	Sheep.	Pigs.						
1896 ..	t. c. q. 9,182 19 3	t. c. q. 9,214 19 3	£ s. d. 11,905 14 3	19	215	11,126	4	38	538	41,897	..	£ s. d. 329 14 1	832	..	11,637	7,688	£ s. d. 4,785 3 9
1897 ..	9,618 9 3	10,651 8 3	11,654 13 0	16	313	1,059	..	47	773	64,588	30	203 17 6	5,050	..	9,673	7,593	4,831 16 11

* 3 (a)—G

W. McIntosh.
28 Feb., 1898.

- W. McIntosh. 1083. Has there been some live stock trucked for Sydney from Koorawatha by the Southern line instead of going by the Western line? Yes.
- 28 Feb., 1898. 1084. What is the reason of that? It is much more convenient for the Department to carry it *via* the south, for this reason: If the Railway Department compelled the owners to truck at Koorawatha in the morning for the morning train, the stock would have to stand in Cowra the whole of the day until the evening train, as there is no corresponding train to run west. In the case of stock loading at Koorawatha, of late, specials have had to be put on to carry it. This has simply been done because it has been more convenient for the Department to carry it that route.
1085. Have the grades anything to do with it? That is not the objection. It is simply to prevent the inconvenience of the stock standing at Cowra all day.
1086. Do you know what rates are charged? All traffic from branch lines is charged as if coming by the shortest route, independent of which way it comes.
1087. Do you know the district? I know there is a good deal of wheat coming in from the district through which the Young to Grenfell survey passes.
1088. What traffic does the Monteagle station obtain? Generally Darling Harbour. It depends on what convenience Darling Harbour has for dispatch.
1089. It is not a question of preference to south or west? No, it is a question of convenience at Darling Harbour.
1090. Do you know of any goods consigned to Young, *via* the Western line, from Darling Harbour? No. Even traffic from Richmond, though it is a mile or two shorter *via* the west, has on several occasions come by the Southern line. The general traffic from suburban stations and Darling Harbour comes by the Southern line.
1091. Last year you sent away 5,050 bags of wheat or flour from the railway station? Yes, of wheat.
1092. That means that 20,000 bushels of wheat which reached Young went away from Young without being ground? Yes, it was despatched by train.

Donald McKenzie, butcher, Young, sworn, and examined :—

D. McKenzie. 1093. *Chairman.*] Have you had much experience of the district of Young? Yes, for over thirty years. Formerly, I was a pastoralist.

28 Feb., 1898. 1094. Have you any statement to make? I cannot say that I know a great deal about the Koorawatha line, but I am acquainted with the "white line." I hand in a list of residents who will be benefited by the "white line." The list shows the distance they reside from the line :—

Anderson John	1½ mile.	Hooper Jas.	on line.	Rumble W.	1 mile.
Aston A.	on line.	Hargrave F.	close to line.	Shannon M.	close to line.
Anderson D.	1½ mile.	French Thos.	on line.	Simpson John	on line.
Baker W. and R.	on line.	Hunter Wm.	close to line.	Simpson Jas.	on line.
Baker John	1 mile.	Hughes Thos.	close to line.	Singleton T. S.	1½ mile.
Barr Wm.	on line.	Joyce E.	2 miles.	Taylor A. V.	on line.
Bailey Hy.	close to line.	Jarred Wm.	1½ miles.	Thackeray H. G. M.	on line.
Brown Arthur	on line.	Joyce Thos.	on line.	Taylor A. J.	on line.
Cramb Peter	on line.	King Jno. H.	on line.	White C.	1 mile.
Clode J. F.	1½ mile.	Lynch Bros.	2½ miles.	Webb H.	on line.
Canor John	close to line.	Marooney John	1 mile.	Webb G. J.	on line.
Crowe Patk.	close to line.	Nash A.	3½ miles.	Webb C. D.	1 mile.
Crowe Paul	close to line.	Massey A. G.	on line.	Quinn Thos.	on line.
Crowe Wm.	close to line.	Powell P.	1 mile.	Caldwell J. A.	10 miles.
Crowe Patk.	close to line.	McNamara T.	1 mile.	West Thos.	12 miles.
Dempsey Richd.	2 miles.	Myers Hy.	2½ miles.	Mackenzie J. W.	9 miles.
Dempsey F.	2 miles.	Martens A.	close to line.	Hargrave Jas.	5 miles.
Dempsey P.	2 miles.	McKenzie D.	close to line.	Regan W. G.	15 miles.
Doherty H.	1½ mile.	McNickel A.	4½ miles.	Light P. J.	4 miles.
Dooley Geo.	close to line.	Martin G.	1½ miles.	Cusack J. E.	4½ miles.
Fitzgerald M.	on line.	Martin A.	on line.	Flanagan Jas.	4 miles.
Frudenstein F.	3 miles.	Napier John	1½ mile.	Crowe Paul	3 miles.
Gorman J.	1 mile.	Powderly C. and W.	on line.	Crowe T. M.	1½ mile.
Flanagan J.	2 miles.	Plowes J. T.	close to line.	Walsh P. J.	3 miles.

There are many more residents within reasonable distance of the line who are not mentioned in the list.

1095. How far out from Young does the list commence? About 4 miles.

1096. How far on the Young side of Grenfell does it cease? About 6 miles.

1097. Therefore, these people are resident contiguous to the line on approximately 20 miles of country? Yes; the majority of them are within 20 miles of Young.

1098. Have you any further statement to make? I consider that the "white line" would command all the trade between the Bland Creek, and as far down as Curraburrama. I contend that the whole of the country from the "white line" to the Bland is country which would be served by that line. The country extends for about 30 miles.

1099. Do you care to make any statement with regard to an extension over the Bland country? I think it would be a very bad route for a railway. As a rule, it is subject to flood and is very rotten country. The water extends a great way over it in flood-time. I think it would be a very expensive line to construct and maintain.

1100. Do you desire to make any statement, with regard to the question of statistics? I can confirm the distances mentioned in the statistics of the holdings from the "white line." They do not exceed a distance of 5 miles from the "white line," with the exception of four or five holdings.

1101. Have you any knowledge of the agriculture on the Kikiamah, Burrumunda West, and the Arramagong holdings? I know there is a great amount of country which, in the event of the "white line" being constructed, would be put under cultivation in a short period. This country lies pretty much on the west side of the "white line." Operations are going on there now for the cultivation of land. If the line be constructed from Young to Grenfell, it will serve Grenfell, the country north, a portion of the country east, and the country west.

1102. In your opinion, will the "white line" serve the district better than the Koorawatha line, or fully as well? Fully as well.

John

John Forsythe, storekeeper, Young, sworn, and examined :—

1102½. *Mr. O'Connor.*] How long have you been in Young? Over fifteen years.

1103. With what district do you carry on business? Monteagle, the Bland, and out Temora way—a distance of 40 miles.

J. Forsythe.

28 Feb., 1898.

1104. What effect would the "white line," if constructed, have on the trade of the district? In my opinion the "white line" would be a great convenience to the residents along it. I can say, honestly, as a business man, that I would just as soon that neither of the lines were built at all; but if either is to be constructed, that will be more beneficial to the larger number of people.

1105. How far do you send goods towards Grenfell from Young? I send out to Arramagong, a distance of 25 miles.

1106. Would it be a fair thing to state that Young, in store goods, pretty well controls two-thirds of the distance to Grenfell? I think so.

1107. What effect would the Koorawatha line have on the Young trade? I think it will just about settle it. I do not think that it will do many settlers much good, and it cannot do business people much good. I do not know what effect it would have upon Grenfell, but as far as Young is concerned most of us would have to look for fresh positions.

1108. What is the commercial position of Young? We have five banks here, and if that is any guarantee of the stability of the town we are well off. The business of the banks extends over a large scope of country. Commercially Young has been, and no doubt will continue to be, the centre of this large district, including the Bland, if we are not cut off by railways. When I first came here we had a large scope of country, but it has been reduced. The Temora line took a certain amount of it. The land is now more closely settled between Young and Grenfell, and all the farmers are *bona fide*. At the present time they are the most substantial support Young has, and if a line be constructed from Koorawatha to Grenfell I take it that the majority of these people will go to the nearest point of railway communication, and we shall lose their trade. The town of Young has in the past made strenuous efforts to become a large commercial centre. It has erected a flour-mill, a butter factory, and meat works. A large amount of capital has been expended in the erection of these properties, and if our commercial and trading circumference is limited these institutions must of course fade away. For that reason I think we are entitled to be considered in the construction of a railway. With regard to the Co-operative Flour Mill, of which I have been chairman for a number of years, we have had plans before us for its enlargement which will entail the expenditure of a certain amount of money. The directors have been seriously considering the advisability of enlarging it to twice its present capacity. The mill will either have to be enlarged or other mills erected to take some of the trade which our mill has had to let pass. The mill has been a large feeder to the railway. We send flour as far as Newcastle, Sydney, Wyalong, Cooma, and all quarters of the Colony. Grenfell is a very large supporter of the mill.

1109. Would the construction of the railway do the district a great amount of good? The construction of the "white line" would. It would induce many persons resident upon it to go more largely into agriculture than they have done in the past. They are already making large additions to their cleared land. We have twice as much land under cultivation on the "white line" as we have had in the past.

John Marooney, farmer and grazier, Lower Coolagong, sworn, and examined :—

1110. *Chairman.*] Where is Lower Coolagong? Midway between Young and Grenfell, and 3 miles from the "white line" on the eastern side. J. Marooney.

1111. Have you any statement to make? Yes; I desire to hand in the following statutory declarations from residents of Thuddungra :— 28 Feb., 1898.

Bulla Creek, 25 February, 1898.

WILLIAM HUGHES, Thuddungra, Young :—I am a farmer; I was misled when I signed for Koorawatha to Grenfell line; I publicly withdrew my name when I found my error; I am about 10 miles to the west of the Young to Grenfell line; the Koorawatha to Grenfell line, if made, will be of no use to me; I am in favour of the "white line," that is Young to Grenfell; my market is Young and Sydney; I own 452 acres; I farmed 100 acres last year; if the "white line" were built it would induce me to increase my agricultural area. I run sheep on my land; they pay me well.

his
WILLIAM x HUGHES.
mark

The above statement was read over to Hughes, and he appeared to fully understand the nature and contents thereof, and it was duly signed and witnessed in my presence by me,—JOHN C. WATSON, J.P.

Bulla Creek, 25 February, 1898.

GEORGE McLAUGHLAN, Kikiamah :—I signed for Koorawatha to Grenfell line in error; I find the Koorawatha line, if built, will be of no service to me, as I live about 8 miles west of Young to Grenfell line; if this line be built it will serve my purpose; my market is Young and Sydney; I own 640 acres on Kikiamah Holding; I farmed 80 acres wheat last year; I am increasing my area up to 120 acres this year; if railway communication is offered me by the "white line," I shall still further increase my wheat area; I also run sheep on my land.

G. McLAUGHLAN.

Signed in the presence of and witnessed by,—JOHN C. WATSON, J.P.

Bulla Creek, Young, 25 February, 1898.

CHRISTOPHER BYRNE, Thuddungra, farmer :—I publicly withdraw my support from the Koorawatha to Grenfell line, as I was misled into signing for it; I am about 11 miles west of the Young to Grenfell line; this line I support; the Koorawatha line, if built, would be of no use to me; my markets are Young and Sydney; I farmed last year 100 acres of wheat; this year I am putting in over 250 acres; if the line I favour is built, I shall be enabled to increase my wheat area.

his
CHRISTOPHER x BYRNE.
mark.

The above statement was read over to Byrne, and he appeared to fully understand the nature and contents thereof, and was duly signed and witnessed in my presence by me,—JOHN C. WATSON, J.P.

Bulla Creek, Young, 25 February, 1898.

CHARLES PALMER WILLIAMS, Pine Grove, Thuddungra :—I am a farmer; I own 570 acres, of which I farmed 160 acres; my land, for sixteen years, has given me an average of over 15 bushels per acre, of wheat; I oppose the Koorawatha to Grenfell line, as it would be of no service to me or this district; I am about 11 miles west of the Young to Grenfell line; if the "white line" is built it will stimulate me to increase my farming area at once; my markets are Young and Sydney.

CHARLES WILLIAMS.

Signed and witnessed before me,—JOHN C. WATSON, J.P.

Bulla

J. Marooney.

28 Feb., 1898.

Bulla Creek, Young, 25 February, 1898.
HENRY E. HUGHES, Thuddungra, Young:—I am a farmer, and supporter of Young to Grenfell line; the Koorawatha to Grenfell line will be of no use to me if built, as I reside about 9 miles west of the "white line"; Young is my market town; I farmed about 14 acres of wheat last season, and I am going to farm about 100 acres this season; if the "white line" were built it would be profitable to this district, and bring more acres under cultivation.

HENRY E. HUGHES.

Signed and witnessed before me,—JOHN C. WATSON, J.P.

Bulla Creek, Young, 25 February, 1898.
HUGH McALISTER, Thuddungra:—I am a farmer and hotel-keeper on the Bland road; if the Koorawatha to Grenfell railway is made, it will be of no use to me as I reside 10 miles west of the Young to Grenfell line; that is the line I support; I farmed over 50 acres last year; I will put in 160 acres of wheat this year if the "white line" is built; I can profitably increase my area, and will do so; my total area is 370 acres; my market lies at Young and Sydney.

J. HUGH McALISTER.

Signed and witnessed before me,—JOHN C. WATSON, J.P.

Bulla Creek, 25 February, 1898.
WILLIAM CAUSER, Thuddungra:—I am a farmer and grazier; I own 530 acres; I had over 40 acres under wheat crop last year; I purpose putting in 200 acres of wheat this year; the Koorawatha-Grenfell railway will be no advantage to me as I am 9 miles west of the Grenfell to Young proposed line: if this line (the "white line") is made, I will increase my cultivation as it will pay me to do so; my sheep pay fairly; wheat pays me better; my market is Young and Sydney.

WILLIAM CAUSER.

Signed before and witnessed by me,—JOHN C. WATSON, J.P.

1112. *Mr. Fegan.*] How long have you lived at Lower Coolagong? All my life.
1113. What area do you hold? 5,500 acres.
1114. How do you utilise it? By farming and grazing. I have 1,020 acres cleared. Last year I had 330 acres under wheat, and 35 acres under hay. That does not represent my usual sowing, the season being a dry one. The wheat averaged 7 bushels to the acre last year, and I had 50 tons off the 35 acres of hay. The previous year's average was 12 bushels to the acre.
1115. How long have you been cultivating your land? For twelve years, on my own account.
1116. What is the general average, taking good with bad years? About 12 bushels to the acre.
1117. How many sheep do you run? About 6,000 at present. I run more than a sheep to the acre.
1118. What was your clip last year? Ninety-four bales, or 6 lb. 10 oz. to the sheep.
1119. Is that a fair clip? Yes; considering the year.
1120. What is the lowest price at which you have sold wheat? Two shilling and twopence per bushel.
1121. Did it pay at that price? Yes; it paid better than sheep.
1122. Do you employ labour? Yes.
1123. We had evidence on Saturday to the effect that you could plough, sow, reap, and mow for 10s. an acre? I think it could be done at that.
1124. Therefore, at the price of 3s. 6d. a bushel, wheat can be grown at a nice profit? Yes.
1125. How far are you from the Young main road? There is a road running through to connect with the main road at Landra west, *via* Monteagle, and I am right on it.
1126. How far are you from Monteagle? About 9 miles. I send my produce to Monteagle, and thence to Young by rail.
1127. How far would the "white line" be from your holding? Half a mile, and 3 miles from my residence.
1128. Then that would suit you better than the other line? Yes; if there were a platform at Bulla Creek I should save from 3s. to 3s. 6d. a ton on wheat, and 3s. to 4s. a ton on the carriage of wool.
1129. What does it cost you to take your produce to Monteagle? From 7d. to 8d. a sack, or about 6s. 8d. a ton. From Monteagle to Young it costs about 1s. 8d. a ton.
1130. Is there any difference in the cartage in good seasons as compared with the last two dry seasons? I do not think so. The cost of cartage is as cheap now as it has been for some time.
1131. I suppose the distance from a railway keeps you and others from having a larger area under cultivation? Yes, it has a deterring effect.
1132. If the "white line" were constructed, would it give an impetus to wheat-growing? Yes, I would continue to clear land.
1133. Did you take a prominent part in the agitation at Bulla Creek for the "white line"? Yes.
1134. What is the general opinion of the people about there regarding the "white line"? The opinion is that if it is constructed there will be a greater area of land under cultivation out there.
1135. Do you know both routes fairly well? Yes; I should say that the soil on the "white line" is superior to that on the Koorawatha line. The soil on the Koorawatha line, for a good part of the distance, is of a very sandy nature. A good deal of the country was thickly covered a little time back with what they call No. 10 grass. Wherever that grows luxuriantly the soil is of a sandy nature. I think the presence of this No. 10 grass seed had a great deal to do with landholders in that part of the district going in for agriculture, because where it exists to such an extent as it did there the land is practically unfit for pastoral purposes.
1136. Under those circumstances the people in the Koorawatha district should not have the same number of bushels to the acre as you have here? I would not go so far as to say that.
1137. There must be a difference if the soil is inferior there? A sandy soil will grow crops very well for two or three years, but it will not last so well.
1138. Do you remember any agitation prior to the present one to connect Young with Grenfell? Yes. The line was promised, and two routes were surveyed, and I believe land was reserved as far back as 1883, and there is no doubt that that has conduced to settlement to a great extent along the route.
1139. Do you farm your land yourself? Yes. I have one halves farmer who is putting in 500 acres.
1140. What is your opinion of the ultimate result of the halves system? I should say that as the system develops the farmers will be found going further afield. They will not continue farming land if they can get virgin soil. The farmers are at the present time leaving landra every year—in fact, some of them are coming over to the "white line" district.
1141. Do you know how many have left Landra this season? No; but I know of two. They are taking land on the halves system at Burrumunda Troy.

1142. Do you think the halves system has come to stay? It is questionable. When the land begins to get worked out it is questionable whether the tenants will continue to work it when they can get new. J. Marooney.
28 Feb., 1898.
1143. Do you think they will only work on the halves system until they get sufficient capital to start for themselves? I think so.
1144. How far would the Koorawatha line draw traffic from Grenfell? Not more than 6 miles.
1145. Have you seen the names mentioned in the statistics presented to the Committee? I have seen a lot of them.
1146. Do you know whether the whole of them ought to be included in the statistics? I should say so. I know the statistics were taken very hurriedly.
1147. Do you think they are fairly correct? Yes.
1148. Have you anything further to say? It has been stated that the country adjacent to the "white line" is inferior to that along the proposed line from Koorawatha, and is composed of steep ridges. About 7 miles on the Grenfell side of Koorawatha, however, we have a tract of country, commonly known as Crowther Mountain, which could not be exceeded for roughness in New South Wales. This land is unfit for cultivation, whilst any ridges on the "white line" are all good grazing lands. I consider that Crowther Mountain is not fit even for that. It would not carry one sheep to 50 acres. Again, on the other side of the Koorawatha route, we have the Waterfall Hills. I do not think any man in his senses would think of cultivating those. After we pass Mr. Wood's Station, we have another rough tract of country between there and the Grenfell-Cowra Road, which is not fit for cultivation.
1149. Is the area of good arable land, as extensive on the Koorawatha route as it is on the route to the "white line"? I should say not. The Koorawatha route runs right through the valley of the good lands which lie there. It is not backed up by country on the other side. As you get towards Bumbaldry it is very rough country indeed. Some of it is hardly traversable. I think the roughest land on the "white line route is just on the line."
1150. You do not know the area of the good land on the other side? No.
1151. Therefore what you say now is more guesswork than anything else? Yes.
1152. Having travelled over both routes, not knowing the area, you are of opinion that there is much better land on the line known as the "white line" than on the proposed line? That is my opinion.
1153. Have you anything further to say? It has been said that lucerne has been laid down on cultivated land to recoup and cleanse it. I think that when lucerne is laid down, particularly by pastoralists who are breeding crossbred sheep, it is laid down to recoup the banking account. The quickest method of cleansing land is by fallowing it, and running it down with sheep. It is not an easy undertaking to plough up a lucerne-sown field; the roots are of a tenacious character.

Romer Meadows, Inspector of Stock, Young, sworn, and examined:—

1154. *Chairman.*] What are the limits of your district? Sixty miles each way. Young is the centre. R. Meadows.
28 Feb., 1898.
1155. What is the number of stock in your district? Cattle, 31,475; sheep, 1,525,551; horses, 10,860—that is for this year.
1156. Could the district run more stock than that? Last year there was more. The number is less this year on account of the drought. This year there is a decrease in horses of 9.75 per cent.; in cattle, 8.22 per cent.; in sheep, 8.65 per cent.
1157. Is there an improvement in the class of stock? Yes.

John Donald Mackenzie, grazier, Thuddungra, sworn, and examined:—

1158. *Mr. O'Connor.*] Where is Thuddungra? On the verge of the Bland and the Young district—18 miles from Young. J. D. Mackenzie.
28 Feb., 1898.
1159. How many acres have you? 3,350.
1160. How do you utilise it? By carrying stock on the whole of it. The railway communication I have at the present time will not admit of its cultivation.
1161. If a line is constructed from Koorawatha to Grenfell will it do you any good? No.
1162. How would the "white line" suit you? It would suit me better. I should only be 12 miles from it.
1163. How many sheep do you run at present? I have 5,000 sheep. I may state that I have been dealing in stock, and in years gone by I have shorn as many as 12,000, but of late I have only been shearing from 4,000 to 5,000.
1164. Are there many settlers about your place? A good number.
1165. What is your opinion of the proposed line? I strongly support the "white line," and so do my neighbours. I may state that there are a good number of inhabitants and permanent holders close to that vicinity who are strongly in favour of the "white line." A number of people out there who have signed in favour of the Koorawatha-Bimbi line were in a fog at the time as to what to do. If the railway does not go beyond Grenfell they are strongly in favour of the "white line," but at the present time they favour a Koorawatha to Bimbi line. I may add that had the Federal line been constructed during the last year or two, no doubt a number of stock could have been saved by the aid of it in getting them to pastures, I myself signed in favour of the Koorawatha-Bimbi line prior to any steps being taken by the Young people to advocate the "white line." If such a line came to Bimbi it would be within 6 miles of me.
1166. Do you know the country well? Yes; and the whole of the country between the "white line" and the Bland is fit for cultivation, but you must use your own judgment as to seasons. Some you can cultivate for years, but others you must cultivate in accordance with the seasons. From Young to Williams' Crossing the distance is 60 miles. If the "white line" is constructed a number of the people in the Bland district will go in for farming. The soil is admirably adapted for cultivation.

John

John Carlton Watson, grazier and farmer, Greenbank, near Young, sworn, and examined:—

- J. C. Watson. 1167. *Mr. Fegan.*] What is the area of your holding? Approximately, 18,000 acres.
- 28 Feb., 1898. 1168. What is the area under cultivation? I have 2,000 acres in course of preparation, and I expect, if the season will permit, to have not less than 1,000 acres under wheat, and perhaps more, with the prospective intention of putting it into grasses.
1169. Have you any statement to make? A great number of people in the immediate vicinity of Koorawatha and thereabouts now make use of the Western rates to send their produce by the Southern line. I may point out that that is bad business for the railway. With regard to the Burrangong Valley, it has been proved that there is an almost inexhaustible supply of water there. I have had it brought under my notice within the last few days that tomatoes, melons, and cabbages have been grown there notwithstanding the drought we have had. They are equal to anything which has been sent to the Young district from the Richmond and Hunter Rivers. If the "white line" is constructed it will enable those parties upon its confines to go in for these auxiliary aids, and supply Sydney and the district, instead of calling upon us to draw our supplies from the Hunter and Richmond Rivers, and it will enable us to export. There are other minor industries, such as the production of poultry and eggs, which can be increased with railway facilities. I think the credibility of the Koorawatha statistics has a right to be impugned, because it is within my knowledge that the names of parties have been obtained who will have nothing to do with the Koorawatha to Grenfell line, but who are in favour of the "white line."
1170. Can you give us the names and the areas? I know of the name of one party which the Chairman of the Grenfell League says he is in doubt about—George McLaughlan. His area is 640 acres, and last year I think he had 80 acres under cultivation. He has given evidence to the effect that he will increase it to 120 acres.
1171. Do you know of any other names? There is Edwards, who is in Thuddungra. His area is something under 300 acres.
1172. Have these men given you that information? McLaughlan did.
1173. We have already got McLaughlan's evidence, and also that of Hughes and Williams? There are several. Twenty-five or twenty-six years ago the land in and around Grenfell was considered valueless for agriculture. Mr. Greene said the same of the land around Condobolin and Euabalong. It will be apparent that the action of the Government will be inconsistent should the Koorawatha to Grenfell line be constructed, because it will mainly benefit three large estates, and because the Government are endeavouring to induce a system of closer settlement on Crown lands. As a matter of fact, we have closer settlement on the "white line." The Government has ignored the existing permanent closer settlement. With regard to cultivation on the halves system, the adoption of this system, I contend, is not an improvement on the older methods, but the reverse. I know of no man who, after four years, is in a position to buy himself a farm, because if a man increases the area of his cultivation on halves he has to increase his plant *pro rata*, and machinery and horses become worn out. The halves man who tills the land is left with worn-out machinery and horses, perhaps, that do not represent the capital value which they represented at the initiation.
1174. When the wheat is ready for cutting does the tenants' machinery cut and winnow, and so forth, the proprietor's wheat? Yes; the owner provides no machinery.
1175. Do I understand you to say that under the halves system the owners simply clear the ground and buy the seed and the tenants do the remaining work? That is as it stands.
1176. Your contention is that the tenant finds all the machinery and has all the wear and tear? Yes; the owner is left with his land as a valuable estate at the end of the agreement. The other man has given his labour and invested his capital, and it has not been shown in any instance that he is much better off. In contradiction of some of the evidence which has been given as to the quality of the land in the Young district, I wish to state that long before these noted half-share men were here the Young district produced wheat which took first prize at the Philadelphia Exhibition, and the flour ground from that wheat also competed against the world and took first prize. If the Koorawatha to Grenfell railway be built the whole of the adjacent country, with the exception of $7\frac{1}{2}$ miles, will be controlled by three men. In the vicinity of the "white line" there are five public schools and three provisional schools. On the Koorawatha route there is only one school, and there is another which is dismantled. There are three churches at Thuddungra—the Presbyterian Church, with an average attendance of thirty; the Church of England, with an average attendance of fifty; and the Roman Catholic Church, with an average attendance of sixty, and sometimes more. Then there is the hall at Bulla Creek, which is used for church purposes by the Roman Catholics and the Presbyterians. I am not prepared to state the number of Presbyterians. These churches mean population, whereas I am not aware that there are any churches on the other route. It has been stated in evidence that population has advanced on the Koorawatha route. This evidence has been given by Mr. Greene, Mr. Harper, and others. I deny that, and I will prove it hereafter. The Young to Grenfell line would command a large area of agricultural and pastoral lands, and there is an impression abroad that much of this land has been overlapped by the Grenfell League. There are four large estates between Koorawatha and the Brundah holding, namely, Iandra, Warrangong, Kinleside's, and Brundah. They are credited with having 33,000 acres fit for the plough. Iandra is credited with having 15,000 acres, Brundah with 9,000 acres, and Warrangong with 5,000 acres. That only totals 29,000 acres.
1177. What about Kinleside's holding? That is only a small place. If Mr. Greene's evidence be correct, he must have 19,000 acres of cleared land, which if deducted from his run area of 31,000 acres, leaves him with 12,000 acres of uncleared land. There is a large percentage of this 12,000 acres, which, by reason of creek exemptions and broken country, is invaluable, so that, before the railway line can be built, at the rate of progression of clearing, Mr. Greene's holding will be practically exhausted. I think area under grass or lucerne on Iandra is from 3,000 to 5,000 acres. Mr. Greene has only been cultivating for five years, and if we take the rate of progression of returning it to pasture, there will be a great deal of it in pasture lands very soon. With regard to the character of the country, Mr. Greene says that the Koorawatha and the "white line" routes are similar; yet he says that the Koorawatha to Grenfell railway will pass over the best agricultural land in the Colony. He has also said that the land about Young is not fit for agriculture. Mr. Greene also says that on the Koorawatha to Grenfell route enormous strides have been made in the way of population. I challenge that statement, because within the last ten years Mr. Greene has incorporated within his estate the following settlers:—Messrs. McCue, Simpson, Harris, Beplate (who is now in Africa), Berry, Holt, and William Fowler. These represent seven families, and the Government Statistician's average of each family is $4\frac{1}{2}$ souls, which would make an aggregate of thirty-one souls.

Mr.

Mr. Greene says that he can only give definite evidence with regard to three properties along this route. From the north-west boundary of the Brundah estate, which is approximately $7\frac{1}{2}$ miles into Grenfell, the settlements in the immediate vicinity of the Koorawatha line consist of Bell Brothers—I believe there are four of them—Newman, Bembrick, and Neale. Mr. Greene stated in his evidence on the 3rd February that a statement had been made by the advocates of the “white line” that the projected Koorawatha to Grenfell line would only pass through the estates of three large holders, and he added, “I wish to give that an absolute denial.” He says, “It does pass through three large estates, but then, when it emerges from Brundah, and comes to Grenfell, it passes through very thickly populated country.” I may state that the Minister, in moving Parliament to refer the Koorawatha to Grenfell scheme to the Public Works Committee, made the alleged fact of the land between Koorawatha and Grenfell being given to the Government free of charge one of his strongest points. That is not so.

1178. *Chairman.*] We have evidence of that;—we know whether it is or is not true? If it be not true, the “white line” people can claim the Minister’s support on the same grounds. With regard to the profitability of the share system, one man is cited as a most capable man with a large plant who, after four years’ operations, has been enabled to pay off £700 of his indebtedness contracted under this system. I might state that the individual referred to came there with a fairly large plant. If that is the maximum of success to be obtained by the best farmers under this system, it is clear that it is a very doubtful one, and is not a permanent industry such as would justify any Government in mortgaging posterity. I may say it would not pay me to persevere with agriculture beyond three years, because the land becomes exhausted and dirty.

1179. *Mr. O’Connor.*] Will three crops fully exhaust the land? It will bring it to a vanishing point if you do not return something to it. I wish to state that Burrumunda has 1,000 acres going into cultivation this year, and it is intended to clear another 1,000 acres. Kikiamah has 600 acres, which are being cleared now. Arramagong—I mean the station held and managed by the Union Bank—has a large area which is being cleared now—up to 300 to 400 acres. James Caldwell has cleared over 200 acres, and he purposes clearing still further if railway communication is afforded. The executors of the late Steel Caldwell have about 150 acres cleared, and it is their intention to clear more. On my own holding I will put in 1,000 acres of wheat this year, and I am clearing up to 2,000 acres. I may state, with regard to myself, that whether railway communication is or is not opened up, I intend to go on clearing, because I consider it will pay to do so.

1180. *Chairman.*] All these holdings are to the west of the “white line”? Yes; I may also state that there are a number of small holdings which are being cleared. These stations are an index of what is going on, and will go on in the district. Mr. Greene stated that when he bought his run it would only carry 6,000 sheep. The improved conditions, however, now enable him to carry half as many more, namely, 9,000 sheep. That is what he states. As a matter of fact, before he started to clear—in 1886—he had 32,000 sheep returned. In 1888 he had 34,000 sheep returned; in 1890 he had 33,000 sheep returned; and in 1891 he had 41,000 sheep. I put that against his statement that the whole of his run could only carry 9,000 sheep under up-to-date conditions. Again, at Koorawatha it was stated that a further 93,000 acres would come under cultivation. I cannot find out where it is to come from, unless it laps over upon the “white line.” Therefore, I say that that evidence should be received with a due amount of caution. The “white line” would form a portion of the Federal line, and that is a strong reason for advocating it. If that line had been built it would have let the people of this district out to the north or south, and as we never have drought all the year round in New South Wales, we should have been able to save 250,000 sheep in the past season. That is capital lost to this district and to the whole of the Colony.

William Ehrlich, storekeeper, Young, sworn, and examined:—

1181. *Chairman.*] How long have you lived in this district? I have been in Young for twenty-seven years. I have known the district since 1862. Fourteen years ago, when the railway line from Young to Blayney was discussed, great opposition was shown by Members of Parliament, especially by Mr. Reid, Mr. McElhone, and others. The *Daily Telegraph* strongly advocated the extension at that time of the continuation from Young to Grenfell, and stated that such extension would serve over 3,000 people more. The line to Blayney was constructed, I believe, more as a safety-valve for the Western line. The line from Young to Blayney has not been a profitable one. Railways should be constructed for the benefit of the many; but such seems not to be a fact. We have no less than half a dozen suckers on the Southern line, which have swallowed up from the proceeds of the railway revenue no less than over £120,000 in 1897. The Koorawatha line, if constructed, will start with an annual loss of close on £2,000. I do not say that Grenfell should not have a line. This country, the interior, is devoid of navigable rivers, hence the iron horse is the settler and civiliser. Koorawatha itself consists of two public-houses, and a store, and railway station-house. The population between Koorawatha and Grenfell is of a nomadic kind. The electoral district shows seventy-two electors, one public school at Mitten’s Creek, and the enrolment of children twenty-six in number. If the Government were to construct the line from Koorawatha to Grenfell, thence to Wyalong, that would be the death-knell to Young’s prosperity. Temora and Barmedman would suffer in proportion. Grenfell’s ambition and parsimonious spirit would be satisfied. Grenfell would command not alone the northern part for 20 miles or more, but it would largely capture the trade for 15 more miles along the Wyalong route, on the southern side along the line. That would be the greatest blow a town like Young could receive. If the line from Young to Grenfell should be favoured by the Government, we have a large population to start with. Passenger traffic is the best paying, and requires the least attention. Wheat is the most unremunerative for railway revenue. Young has a splendid railway station, goods-shed, and keepers’ homes, which cost £13,000. It has a magnificent milling plant capable of milling 60,000 bags of wheat. We have a butter factory, soap factory, and splendid meat-chilling plant, which cost £12,000. The population of the Young Police District is 5,658. Along the route between Young and Grenfell the people are all *bonâ fide* settlers. They all farm their own land, with the exception of three who farm on the halves system. These are Messrs. Thackeray, A. Taylor, and Aston. The population on this line is between 500 and 600. There are along the line four public schools, 153 children, with adjacent provisional schools, making a total of 263, and Grenfell, with its 1,000 of inhabitants, offers this line a fair remuneration. Sooner or later this must become a section of the Federal line to Werris Creek, thence on to the Queensland Border. Koorawatha has a line;

J. C. Watson.
28 Feb., 1898.

W. Ehrlich.
28 Feb., 1898.

W. Ehrlich. line; Grenfell requires one. Wyalong and Barmedman desire to be connected with Temora, and on to Hillston. Between these three lines the settlers would have an easy access, the furthest, perhaps, 20 miles; between Koorawatha and Young-Grenfell line the furthest distant would not exceed 16 miles, while between Young-Grenfell and Temora-Wyalong line the furthest point perhaps would be 20 miles. I shall now give a few figures, which will show that the Grenfell people can be served just as well from Young to Grenfell as from Koorawatha to Grenfell. The freight is as follows:—

To Grenfell, <i>via</i> Koorawatha, 266 miles, 6-ton waggons, per ton:—					
Mixed.	A.	B.	1st.	2nd.	3rd.
19s. 5d.	£1 2s. 4d.	£1 18s.	£3 19s. 10d.	£4 19s. 3d.	£6 17s. 10d.

To Grenfell, <i>via</i> Young, 282 miles:—					
Mixed.	A.	B.	1st.	2nd.	3rd.
£1 0s. 1d.	£1 3s. 2d.	£1 19s. 7d.	£4 3s. 3d.	£5 3s. 6d.	£7 3s. 9d.

Probably not more than one-third of the land on the Young-Grenfell route the Government will have to pay for. There are seventy holdings along the line. Young, Grenfell, Forbes, are the largest wheat-producing districts on the southern table-lands.

1182. Will you grant, then, that the freight *via* Young will be more costly towards Grenfell than *via* Koorawatha? Yes, a few shillings more. At the same time, the "white line" would be more beneficial to the community. The rates per ton for wheat are:—Grenfell to Young, 3s. 6d.; Grenfell to Koorawatha, 3s.; Grenfell, *via* Koorawatha, to Young, 5s. 7d.; Cowra to Young, 4s. 9d.; Koorawatha to Young, 3s.; Crowther to Young, 2s. 6d.; Monteagle to Young, 1s. 6d.

William Parker, carrier, near Grenfell, sworn, and examined:—

- W. Parker
28 Feb., 1898.
1183. *Mr. Fegan.*] Where is your residence? About 4 miles west of Grenfell.
1184. How long have you been in the district? Twenty-six years.
1185. Have you done much carrying between Grenfell and Koorawatha? I drew sleepers there when the main line was being constructed.
1186. Are you drawing wheat from Grenfell to Young? Yes; I have been doing so during the whole of the season. Some of it goes to the mill, and some goes to the railway.
1187. From how far east do you bring wheat? It comes to Young from about 9 or 10 miles on the other side of where I live. There is no market there for it.
1188. Is there a mill at Grenfell? There is a roller-mill there at present, but some people are not satisfied with the flour.
1189. Do you think that if you had a mill in Grenfell equal to the one in Young, you would carry more wheat to Grenfell than to Young? I suppose so, if they were as well able to buy it, but I doubt then whether they would consume as much as Young, because they would have to avail themselves of the Sydney market there.
1190. Do you know the route of the proposed railway from Koorawatha to Grenfell? Yes.
1191. You say you drew sleepers from there for use in connection with the construction of the main line? Yes.
1192. Have you any idea of the kind of country there? Yes; some of it is very good on this side, and part on the other, but when you get a few miles from the other side of the Cowra-road you will find it is not fit for settlement. It is barren, and is not fit for agriculture—that is north of Cowra Road.
1193. Have you tried to grow wheat yourself? Yes, this year. I am not only a carrier, but a farmer.
1194. What is the area of your holding? About 900 acres. My son has it, but I work it.
1195. Are you a fair judge of the quality of land? Yes.
1196. And you think the land on the Cowra side is unfitted for cultivation? On the north side of the Cowra-road.
1197. What is it like on the south side? It is very good there from the boundary of the Cowra-road to Young.
1198. Are you acquainted with the land on the "white line"? Yes.
1199. Does the land on the Koorawatha side compare favourably with the land on the "white line"? Yes; but to a larger extent on the "white line."
1200. Would the people of Barmedman bring their wheat to Young? Yes; if they got an extension to Wyalong.
1201. What is the farthest point from which you bring produce or wool into Young? Grenfell is the farthest I have drawn from, or 5 miles on the other side since the line opened to Forbes.
1202. If there were a railway station at Grenfell—whether the line is connected with Young or Koorawatha—Grenfell would be the depot? Yes, all from the other side. As long as the railway station is at Grenfell, the people will make use of it.
1203. But in your opinion there is a larger tract of land fit for cultivation on the "white line" than on the Koorawatha line? Yes, adjacent to the "white line."
1204. From where did you bring the load of wheat you have in town? From the Weddin Gap, 35 miles from Young.
1205. What is the cartage for that distance? For this wheat I get 1s. 1d. a bag down, and 15s. a ton back for the flour.
1206. If you had no load to go back what would you charge for the wheat to come in? I have carried from the "7 miles" at 1s. a bag—that is for the man who held the wheat; but I had other loading to go back with for other people.
1207. What would you cart wheat for, and go back empty? Not less than 1s. 6d. a bag. I think, the "white line" would be the best to construct, because it goes through more country and through a large population. On the other side the land is not in large holdings, so that there is not likely to be small settlement unless the owners cut their holdings up. The "white line" is more permanently settled.
1208. Do you know anything about the Bland trade? Yes.
1209. What is the greatest distance from which the Bland trade will come to find a market in Young? What is on the Forbes side of Marsden will go to Forbes, and what is on this side of Marsden will come to Grenfell or Young. There is a certain line of country which is in doubt. There is a line of hills known as the Pinnacles, and all on the other side of that will go to Forbes—that is from about Boyd, 12 or 13 miles from Forbes; but all on this side of that point will come to Grenfell on account of the roads being better.

1210. Have you much work between Cowra and Grenfell? Occasionally I have been engaged in carrying pretty well all the year. W. Parker.
1211. What is the charge from Grenfell to Cowra? It varies according to the goods; but sugar in loads of 6 tons, is £1 per ton. Sugar, iron, and wire, are carried cheaper than cased goods, which are charged £2 per ton. 28 Feb., 1898.
1212. What is the difference between the cartage from Grenfell to Young, and the cartage from Young to Cowra? I would sooner cart to Young for 15s. than cart to Cowra for £1. It is a better road, and there is more grass, and as a consequence the bullocks will stand more work.
1213. Do you think the Koorawatha line would pick up more side traffic than the "white line"? I do not think so. There is no settlement to cause more traffic on the Koorawatha line.
1214. I suppose you do the greater portion of your work between Grenfell and Young? No; between Grenfell and Cowra, except in the wheat season. It is immaterial to me which way the line goes.

George Whiteman, storekeeper, Young, sworn, and examined:—

1215. *Chairman.*] How long have you been resident in the district? Fourteen years.
1216. How far do you deliver goods towards Grenfell? Within about 6 miles of Grenfell; occasionally I send some right into Grenfell. G. Whiteman.
1217. How many customers have you more than 20 miles from Young along the Grenfell main road? Five or six. 28 Feb., 1898.
1218. How many have you in the second 10 miles from Young within a radius of 4 or 5 miles along the main road? Thirty or forty. The town pretty well holds the trade up to the Tyagong Creek.
1219. Where do you deliver from Young on to the Bland? As far out as 100 miles; 25 miles beyond Marsden.
1220. Have you many customers beyond Marsden? Four or five. The Forbes competition becomes keen at Marsden. I go 25 miles beyond Marsden. I deliver at Williams' Crossing, and sometimes at Curra-burrara. Beyond Bimbi, up to Williams' Crossing, most of the people deal with Young. With regard to the Young butter factory I may state that if a line be constructed from Young to Grenfell, inasmuch as we shall be in touch with a better means of communication, we shall get milk or cream over a distance of 40 miles, whereas we are limited now to cart carriage, and can only get it over a distance of 5 to 6 miles in that direction.

Alfred Blackman, manager, butter factory, Young, sworn, and examined:—

1221. *Mr. O'Connor.*] What is the capacity of your factory? At the present time 5 tons of butter per week. A. Blackman.
1222. What is the area from which your cream is supplied? We obtain it from Cowra, Binalong, and Junee by rail, and 20 miles by road. 28 Feb., 1898
1223. How would the construction of the "white line" affect the industry with which you are connected? We should be able to work all the distance from here to Grenfell, whereas now we cannot work it beyond a distance of 6 miles. We should be able to work also for 10 miles on each side of the line.
1224. Have you anything further to state? The capacity of the factory, without adding more machinery, is about 5 or 6 tons of butter per week, representing about 4,500 gallons of milk a day. At the present price of butter, it means about £1,400 a month distributed in the district.

Thomas Hancock, coach proprietor, Young, sworn, and examined:—

1225. *Mr. Fegan.*] Have you any statement to make? I know the country through which both lines would pass. I think the land along the "white line" is quite equal to the other, and there is more of it. T. Hancock.
1226. Have you the contract for the mail between Young and Grenfell? Yes. 28 Feb., 1898.
1227. Do you do other carrying yourself? Yes; I have been in the forwarding agency line.
1228. What are the rates of carriage from Grenfell to Young? On general merchandise about 25s. to 30s. a ton. The highest it has ever been is 32s. That was when the Union was here, and it kept the prices up.
1229. Do you do any carrying from any other point? Yes, out to the Bland. The nearest point of the Bland will be 34 miles out.
1230. What is your carriage freight to the Bland? It is lower this year than it has ever been. Wool is cheaper grown there.
1231. Would not the construction of the "white line" affect the carrying trade? It certainly would be better for the farmer. I suppose it would affect the road carriage business.

James Archibald MacKinnon, agent, Young, sworn, and examined:—

1232. *Chairman.*] Were you formerly a representative of Parliament in this district? Yes.
1233. How long have you been in the district? Twenty-five years. J. A. MacKinnon.
1234. *Mr. O'Connor.*] Will you give us your opinion of the two routes? I wish to state that after the first two years I came here I owned the Iandra property, now held by Mr. Greene. In 1882, I went into Parliament as representative of this electorate. When I went there a great debate was on as to the right route to take to connect the Great Western or the Great Central line with the present Southern line. The question then was whether the railway should go from Young to Koorawatha and Cowra, and Blayney, or from Young to Grenfell. Previous to that I voted against the line going to Koorawatha, Cowra, and Blayney, because I looked upon this as the most central and best connecting line, and I looked upon the country which would be served between Young and Grenfell as being better than the country which would be served the other way. My present opinion is that the best agricultural land is on the route from Young to Grenfell. In my position as land valuer and appraiser I have had to appraise, for the different Appeal Courts, special area lands, both in Young, Grenfell, and Cowra. I have been better able to uphold the valuations of the Government on the special areas and the lands they have thrown open in this district than I have been in connection with any of the lands round about Koorawatha, Cowra, and other places. 28 Feb., 1898.
1235. Do you know the value of land on either side of the rival routes? Yes. I look upon the land on

J. A.
MacKinnon.
28 Feb., 1898.

the western side of the proposed Koorawatha to Grenfell line as being far better land. You get a bigger scope, and a greater area of good agricultural land than you do when you go away from the "white line." I agree that there is some good agricultural land on a portion of the route from Koorawatha to Grenfell. The country to the eastern side of the range, dividing the waters of the Tyagong from the Crowther is not, to my mind, too good. Passing on to the waters of the Tyagong it is good, and it runs good for a great distance west. In fact, I may say, right down to the Bland. What I said with regard to the good country to the west applies to Bumbaldry and a portion of Kelly's Creek towards the Crowther Range and Cowra-road. I also regard Brundah as good, and it is good into Grenfell.

1236. What is your opinion as to the probability of support which either line would get? I think the railway from Young to Grenfell would get the best support, because the land is divided into so many different holders, who have put their all in it, and who have to live there. They are not in a position to get away or to put the land into grazing again. I think every acre along there will be made productive. With regard to the other route, there is not the population nor the *bona fide* workers which there is on the "white line" route.

1237. In other words, there are a lot of people who have made good substantial homes for themselves, who are bound to stay where they are doing well, whilst others who are not doing so well are also bound to stay? That is so. In 1889 there was a great agitation to have the "white line" established. I had the pleasure of driving Mr. Oliver and other members of the Department along the "white line" route. I know that Mr. Oliver, as Railway Commissioner, was greatly pleased and well satisfied with the country. In fact, with all due respect to him and the Department, he is not responsible for the action of the Minister for Lands or the Minister for Public Works. He met a lot of people, with whom he conversed, and he said, "I think your land is good enough, and I think you ought to have a railway." Whether that caused the people to go in for improvements and the making of homesteads, I do not know; but I think it had a little to do with it.

John Adolf Rossbach, District Engineer, Young, sworn, and further examined:—

J. A.
Rossbach.
28 Feb., 1898.

1238. *Chairman.*] Do you wish to make a further statement? I desire to state that in the event of the line from Young to Grenfell being constructed, the plan I produce delineates what, in my opinion, would be the trend of traffic to Young. The boundaries would extend somewhat more easterly than in the previous diagram, and would extend pretty well half way to Forbes. Divisional line between Forbes and Grenfell would be pretty well determined by distance and other minor conditions. It will be seen from this that it embraces all the land of the Bland and Marsden on the west. The eastern boundary has been pushed a little further east than otherwise was intended.

1239. In point of fact, it is the area which Young holds, or will hold, in her own right as a centre, plus the area which Grenfell will hold in her own right? Yes. These boundaries, of course, are approximate.

Reverend William McGrath, Young, sworn, and further examined:—

Rev. W.
McGrath.
28 Feb., 1898.

1240. *Chairman.*] I understand you wish to make a further statement? Yes; I wish to state, as regards the position of Morangarell, that if the "white line" is constructed, and runs *via* Kikiamah, it will bring Morangarell 30 miles nearer to Sydney than it would if people were forced to go to Temora.

John James Monday, police constable, Young, sworn, and examined:—

J. J. Monday.
28 Feb., 1898.

1241. *Chairman.*] I believe you collected the wheat-yields for the years 1897 and 1898? I collected most, and compiled the whole of the returns, which I believe to be correct.

1242. Have you had an opportunity of seeing the statistics put in by Mr. Taylor? Yes. His figures represent what are collected in these portions of the counties for the Police District of Young. They would not comprise the whole of either of these counties.

1243. How far does the police boundary of the district extend? A distance of 20 miles,—as far as Baker's on the Grenfell-road; Tubbal, towards the Bland; Thuddungra; Kikiamah; and on to the Temora-road.*

1244. Do you believe his statement to be, with regard to the returns, a full one? I do not think so. Since the income tax has come into vogue people are rather dubious about giving their full returns. I feel sure that there is some shortage in the returns.

1245. Has the statement of the number of acres under cultivation anything to do with the possible price of wheat? Yes; if there was a big yield there is no doubt the millers would not give quite as much.

1246. The tendency, therefore, of the farmer is to understate? Yes.

1247. Therefore, you think the figures might be increased? Yes.

Edward Taylor, Chairman, Railway League, Young, sworn, and further examined:—

E. Taylor.
28 Feb., 1898.

1248. *Chairman.*] I believe you wish to make a further statement? Yes. To the 16 miles of land which will be given for the purposes of the construction of the line from Young to Grenfell there has to be added $1\frac{1}{2}$ mile belonging to Mr. J. Fowler, and $3\frac{1}{2}$ miles already built. There remains, therefore, only about 11 miles of line which will have to be resumed or paid for, but from this has to be deducted the distance of land represented by two holders who own 1,020 acres, who will make concessions, and one other holder who holds 420 acres who will probably make a concession. These holders are H. King, junior, 320 acres; C. and W. Powderley, who hold 700 acres. Mrs. Fitzgerald and three others are, so far, undecided, but they would probably be willing to exchange. It is probable, therefore, that the State will not have to pay for more than one-third of the land required. I may mention that the manager of the mill, Mr. Chapman, told you that the cost of the trainage from Koorawatha to Young was 5s. a ton instead of which it should be 3s. 8d.

* NOTE (on revision):—I understood Q. 1243 to be:—On an average what distance across would the police district extend? My answer was:—Twenty miles, meaning 10 miles any way from Young, as far as Baker's, on the Grenfell Road, Tubbal, towards the Bland, Thuddungra, Kikiamah, and on to the Temora-road; these distances would average 20 miles from Young, but towards Marengo and Wombat it only extends 5 or 7 miles, respectively.

[One plan.]

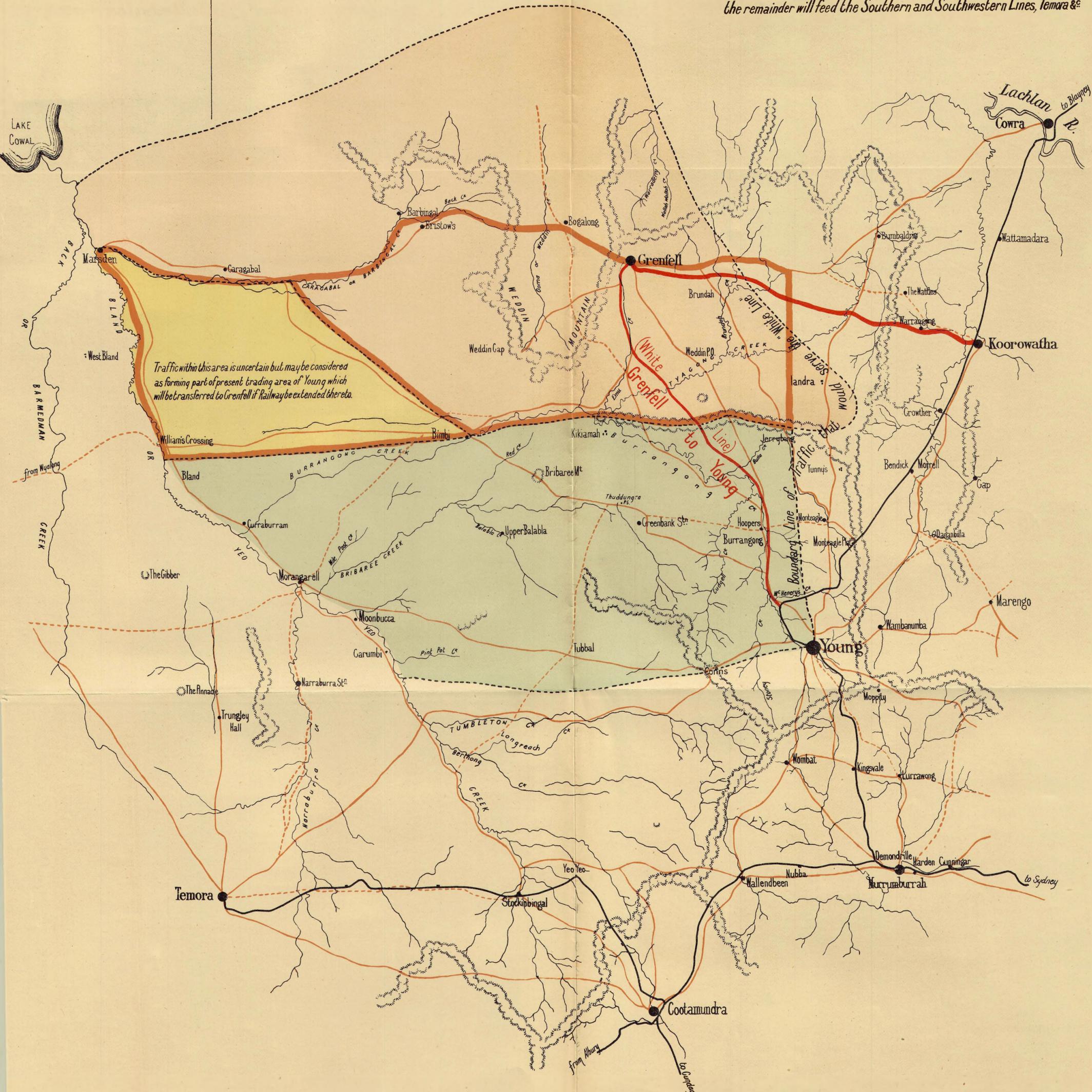
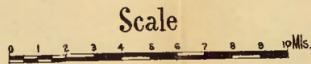
KOOROWATHA TO GRENFELL RAILWAY

Plan to accompany Sectional Committee's Report

H. Deane

NOTES

Area tinted Red The traffic within this area will go to Grenfell and to the North of it to Forbes
 D^o Yellow D^o is uncertain and at present goes to Young
 D^o Blue D^o will go to Young as at present
 To the South of the area tinted Blue one half will probably go to Young
 the remainder will feed the Southern and Southwestern Lines, Temora &c



1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

PARLIAMENTARY STANDING COMMITTEE ON
PUBLIC WORKS.

REPORT

TOGETHER WITH

MINUTES OF EVIDENCE AND PLAN,*

RELATING TO THE

PROPOSED RAILWAY

FROM

BYROCK TO BREWARRINA.

Presented to Parliament in accordance with the provisions of the Public Works Act,
51 Vic. No. 37.

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

* Omitted by Printing Committee.

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 The Honorable DANIEL O'CONNOR.
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Byrock to Brewarrina Railway.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

RAILWAY FROM BYROCK TO BREWARRINA.

REPORT.

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS, appointed during the first Session of the present Parliament, under the Public Works Act of 1888, 51 Vic. No. 37, the Public Works Act Amendment Act of 1889, 52 Vic. No. 26, and the Public Works (Committees' Remuneration) Act of 1889, 53 Vic. No. 11, to whom was referred the duty of considering and reporting upon "the expediency of constructing a line of railway from Byrock to Brewarrina," have, after due inquiry, resolved that it is expedient the railway should be constructed, provided that it be made legally binding upon the Crown lessees in the district served by the railway to pay, until the railway shall become self-supporting, one farthing per acre rent additional to their present or ordinary assessment, such additional rent to be credited to the Railway Commissioners; and, in accordance with the provision of sub-section IV, of clause 13, of the Public Works Act, report their resolution to the Legislative Assembly:—

PROCEEDINGS WHICH LED TO THE PROPOSAL FOR THE RAILWAY.

1. The proposal to construct a Railway to Brewarrina appears, from the official statement before the Committee, to have originated in a petition from the residents of the town and districts, forwarded to the Minister for Public Works in September, 1881. That petition resulted in a survey which was completed in 1883, the length of the line being $55\frac{1}{2}$ miles. Three years afterwards an estimate was made of the cost, and this was represented at £4,366 per mile; but the following year, on the estimate being revised, the cost per mile was reduced to £3,806. In 1889 the proposal was reported upon by the Railway Commissioners, who stated the line could not, on commercial grounds, be recommended, but pointed out that as ordinary roads between Byrock and Brewarrina were, on account of the nature of the soil, costly to make and maintain, it was worth considering whether in lieu of an ordinary road an inexpensive railway might not be constructed.

With the object of constructing a cheap line an amended flying survey was made in 1892, with the result that a route was found 58 miles 48 chains in length, and the cost per mile further reduced to £2,623. To the total cost, however, it was necessary to add, it was explained, the sum of £19,600 for junction works, stores, &c., unless the Railway Commissioners could supply a sufficient quantity of serviceable second-hand permanent-way material at a cheap rate, or could reduce the charge for the carriage of new rails.

In 1895 the matter was again urged upon the attention of the Minister for Public Works, and a further revision of the estimate brought the cost per mile down to £2,340. The Railway Commissioners, however, were still unfavourable to the line, which they stated they could not recommend, on the ground that the probable traffic as represented in a report from the Chief Goods Superintendent would not justify

justify its construction, and at this point the project remained until 1897, when, it being decided to refer the proposed line to the Public Works Committee, the Railway Commissioners were asked to report on the proposal in accordance with the requirements of the Public Works Act.

DESCRIPTION OF THE RAILWAY.

2. The proposed railway branches from the Great Western Railway at the north-west end of the Byrock station, and follows generally for about 19 miles the travelling stock reserve No. 1,207. Then, in order to avoid heavily-flooded ground, it leaves the reserve and continues about 2 miles to the eastward of it, and generally parallel to it, until it reaches Brewarrina, where it ends at 514 miles 25 chains from Sydney. The length of the line is 58 miles 43 chains. The country traversed shows slight undulations, but is generally flat. The heaviest grade on the line is 1 in 75, and the sharpest curve 20 chains radius. Two important watercourses are crossed, the Bogan River and Tarrion Creek, over which there would be built timber viaducts.

ESTIMATED COST.

3. The estimated cost of the line, exclusive of land and compensation, is £146,350, or an average of £2,500 per mile. Of this amount, earthworks would absorb £15,782; bridges, £12,639; level-crossings, cattle-stops, and fences, £2,055; permanent-way materials, £36,524; freight, £11,885; plate-laying, ballasting, and sleepers, £34,902; station works and buildings, £10,470; water supplies, £3,000; gradient and mileage posts, telegraph, and miscellaneous, £2,756; and engineering and contingencies, calculated at 12½ per cent., £16,662.

This estimate, it will be observed, is in excess of that which was made in 1895 by £8,350, or £160 per mile. The difference, as explained by the Engineer-in-Chief for Railway Construction, is due to the latest estimate having been very carefully gone into and nothing omitted. The lower estimate was based on the supposition that the line would be carried below the flood-level; since then it has been decided that the line should be kept above the flood-level. Land resumption on the route of the line would be very small.

RAILWAY COMMISSIONERS' REPORT.

4. The Report of the Railway Commissioners indicates, in the comparison between expenses and earnings, an annual deficiency of £4,299. The estimated annual cost is £9,140, made up of 3 per cent. interest on capital expenditure, £4,390, and cost of maintaining permanent way and traffic and locomotive expenses, £4,750. The traffic estimate, based on a tri-weekly service, amounts to £4,841—goods and live stock, £3,348; coaching, £775; and mails, £618. "The estimated value of probable traffic," the Commissioners say, "has been made upon the most favourable basis, and it is doubtful whether the sum will be fully realised"; and they invite special consideration to the fact "that the larger proportion of the traffic would be diverted from the main line from Bourke, and would consequently correspondingly reduce the receipts therefrom," and, further, that "there is little, if any, prospect of a new traffic being created." Under these circumstances, they report that the construction of the line cannot be recommended.

THE COMMITTEE'S INQUIRY.

5. The inquiry carried out by the Committee has included a careful investigation by the full Committee in Sydney, and a visit of inspection and the examination of witnesses by a Sectional Committee along the route of the proposed line. In Sydney, besides the official witnesses, several graziers whose holdings would be affected by the construction of the proposed line, and stock and station agents were examined. The Sectional Committee were occupied in the examination of local witnesses from Monday, 14th, to Saturday, 19th, March, and, during the course of the week, inspected portions of the surrounding district, and, afterwards, the route of the proposed railway.

CROWN LAND IN THE DISTRICT.

6. The Crown land within an area of 20 miles on each side of the route of the proposed railway, and the same distance beyond Brewarrina to the north, amounts, the Committee were informed by the Chief Draftsman of the Department of Lands, to 830,000 acres, of which quantity 221,300 comprise reserves. With the exception of 4,000 acres, which are untenanted, the whole of the land within this area is held under pastoral lease; 669,110 acres being under homestead lease, and the remainder under settlement lease. The number of pastoral leases wholly or partly within the area is sixteen, and the leases will not expire until the year 1918. The reserves, including camping reserves, population reserves, and temporary commons, are mostly for travelling stock and water. There is no probability for some years to come of any land being made available for small settlement; but, as far as the information from the Lands Department goes, there is no demand for land for this purpose. Two attempts were made near Brewarrina to have an area within 10 miles of the town withdrawn from lease, but on neither occasion did the withdrawal take place, no demand for small holdings being shown to exist.

TRAFFIC PROSPECTS OF THE RAILWAY—ESTIMATE BY THE RAILWAY COMMISSIONERS.

7. The traffic prospects of the line, as estimated by the Railway Commissioners, indicate, as stated in the summary of the Commissioners' Report, an annual revenue of £4,841, and an annual deficiency of £4,299. The details of the traffic estimate are as follows:—

	£	s.	d.
Goods, 2,000 tons at 10s.	1,000	0	0
Wool, 3,100 tons at 10s.	1,550	0	0
Wool, 330 tons at 7s. 6d. (wool on route of line between Byrock and Brewarrina)	123	15	0
Live-stock, 1,000 trucks at 15s. 6d.	775	0	0
Passengers, 1,500 at 9s.	675	0	0
Coaching	100	0	0
Mails	618	0	0
	<hr/>		
	£4,841	15	0

These figures are taken from the report furnished by the present Chief Traffic Manager and late Goods Superintendent, Department of Railways, to the Railway Commissioners, and upon which they base their report. In the Chief Traffic Manager's report and evidence it is explained that a most searching inquiry into the probable traffic on the railway was made by him, and that in arranging his estimate he took into account the most favourable season experienced in connection with the district, and rates for wool and goods as low as they could be made, and yet such as it might be found impossible to maintain in the face of river competition. The great bulk of the traffic, he points out, is carried by river; and he draws attention to the fact that the Government have undertaken the work of locking the river Darling for the purpose of making it permanently navigable, and to the extreme doubtfulness of obtaining traffic at Brewarrina at such rates, in competition with river-borne traffic, as would pay working expenses. In his mind, he says, there is no doubt that, under the altered conditions which will arise from an improved river, the carrying capacity of the river steamers will be improved, and the time occupied in the transit of wool by steamer between Brewarrina and Bourke, as well as the rates of freight, considerably reduced.

Wool taken by steamer to Bourke reaches the New South Wales railway system at that town; and the Chief Traffic Manager is of the opinion that for all traffic within access of the Darling and its navigable tributaries reliance should be placed upon the improvement of means of water carriage to Bourke rather than upon attempts to tap these streams at other points. So far, he states, the carrying companies established at Bourke, who have large vested interests in that town, have to the fullest extent possible concentrated the river-borne traffic at that point.

The

The traffic estimate prepared for the Railway Commissioners includes the traffic in connection with Walgett. If the traffic arriving at Brewarrina for and from Walgett and up-stream therefrom were excluded, the estimate would be less by £1,150, and the details as follow :—

	£	s.	d.
Goods, 1,800 tons at 10s.	650	0	0
Wool, 1,500 tons at 10s.	750	0	0
Wool, 330 tons at 7s. 6d. (wool on route of line between Byrock and Brewarrina)	123	15	0
Live stock, 1,000 trucks at 15s. 6d.	775	0	0
Passengers, 1,500 at 9s.	675	0	0
Coaching	100	0	0
Mails	618	0	0
	<hr/>		
	£3,691	15	0

The live stock in each of these estimates represents double the quantity shipped the year previous to the date of the report at Byrock and Bourke, and the passenger traffic is calculated at local rates. With reference to the stock, considerable doubt is felt whether 1,000 trucks would be carried during a good season, as between Brewarrina and Bourke and Byrock there are three excellent stock routes, one of which, even in a dry season, would permit of stock being driven to Byrock for trucking purposes. During a good season, when stock can travel, owners, it is stated, are not anxious to join the railway at the nearest point; but, in order to save expense, travel their stock for longer distances than is otherwise necessary. At present, most of the stock traffic from Brewarrina goes by road to Bourke.

As for agriculture, the Chief Traffic Manager does not look upon the district round about Brewarrina as one in which this industry is likely to increase.

THE LOCAL TRAFFIC ESTIMATE.

8. Local witnesses urge that the traffic upon the railway will be much larger than stated by the Chief Traffic Manager. One estimate is as follows :—

Goods—Wool, 10,000 tons at 10s.	£5,000
Live stock, 3,000 trucks at 15s.	2,250
Passengers, 6,000 (3,000 each way) at 6s. 8d.	2,000
Parcels... ..	200
Mails	618
	<hr/>
Total	£10,068

These figures, which were submitted to the full Committee, differ slightly from others put before the Sectional Committee who visited the Byrock-Brewarrina district, but they are recognised by the advocates of the railway as a fairly accurate representation of the amount of traffic which may be expected to come to the line.

In the composition of this estimate, the goods traffic is calculated upon an up-river goods traffic from Bourke to Brewarrina, and to places beyond Brewarrina as far as Walgett, and upon the general goods, or return, traffic by road from Bourke to the stations in the Brewarrina district. From Bourke to Brewarrina, an average of 2,054 tons per annum is taken, and for places beyond Brewarrina 396 tons; for the return general road traffic, 200 tons is claimed;—in all, 2,650 tons.

The wool estimate is arrived at, chiefly, by taking the average number of bales per annum landed at Bourke from Brewarrina, and from beyond Brewarrina up stream as far as Walgett. On this basis it is claimed that 18,000 bales, representing 3,450 tons are absolutely certain to be trucked at Brewarrina. Seven thousand bales, or 1,300 tons, are then added as the wool traffic from Brewarrina to Bourke by road; and what is called Byrock traffic (wool and goods combined each way), which, it is explained, refers to goods from Byrock to Brewarrina and the surrounding districts, and wool which comes from Marra Creek and across from the Bogan, and, in some instances, from right up to the Queensland Border, is set down at 2,600 tons.

With

With regard to the traffic in live-stock it is estimated that from 160,000 to 170,000 fat sheep will be trucked at Brewarrina, and it is thought reasonable to suppose there will be at least 10,000 cattle. These numbers, it is represented, would require the 3,000 trucks mentioned in the complete estimate. Several important stock routes from the Queensland border converge at Brewarrina, and the Sectional Committee were informed that a movement has commenced for the establishment at Brewarrina of meat-works, and fellmongering, scouring, and boiling-down works, which will be partly supplied with Queensland stock.

The estimate of passenger traffic is made on the basis of the returns of railway-tickets issued at Byrock and Bourke. It is locally asserted that a large number of passengers, who now join the train at Bourke, would find Brewarrina a more convenient starting point.

Parcels, it is believed, would bring £200, for the reason that the coaches now carry a very large number, and, with a railway for their conveyance, the number is certain to increase.

CONFLICTING NATURE OF THE EVIDENCE.

9. The evidence given in the inquiry is throughout very conflicting. On the traffic question many of the statements made by the officers of the Railway Department are directly contradicted by local witnesses; and, in reply to these contradictions, the Railway authorities maintain that the traffic will not be more than they estimate and probably will be less, and that in any case the line will not be a profitable undertaking.

The Sectional Committee were of opinion that the probable volume of traffic is a very open question.

INJURY TO THE RAILWAY TO BOURKE.

10. Not only does it appear from the evidence of the railway officers that the railway will not be profitable, but it is pointed out that the construction of it will bring into existence a length of line which will add £146,350 to the capital expenditure of the railways of the Colony, and deprive the Bourke to Byrock line of some traffic which that extension was constructed to obtain. At present nearly all the wool carried down the river to Bourke is forwarded thence by the railway to Sydney. Whatever portion of that wool might, in the event of the proposed railway being constructed, be taken to Brewarrina, to that extent the Bourke line would suffer. If the traffic which now goes to the railway at Bourke by river should continue to go there, then still poorer traffic prospects for the new line present themselves.

LOCAL RATES.

11. The advocates of the railway express their willingness to pay local rates for the conveyance of their produce, to an extent which will prevent the line from being worked at a loss; but, in reply to this, it is contended that the adoption of such rates would lead to a competition by river and team which would compel a reduction in the railway charges.

SUGGESTED METHOD TO MEET THE DEFICIENCY.

12. One witness in the inquiry suggested that, to cover the deficiency estimated by the railway authorities, an addition should be made to the rent paid by the pastoral lessees upon their holdings, and the Sectional Committee, adopting this suggestion, recommend in their report the construction of the railway on the condition that the consent of the lessees be first obtained (in such a way as will make the compact legally binding upon them until the railway shall become self-supporting) to the payment by them of $\frac{1}{4}$ d. per acre rent additional to their present or ordinary assessment. But

in

in the way of this there is a want of unanimity among the pastoral tenants. Many, the Committee are informed, would be agreeable to pay the extra amount, while others would not. A few, it is stated, are altogether hostile to railway extension into the district, fearing that the railway will result in closer settlement and land resumption.

GROUND UPON WHICH THE RAILWAY WAS ADVOCATED BEFORE THE SECTIONAL COMMITTEE.

13. Generally the grounds upon which, before the Sectional Committee, the railway was advocated, were—(1) the great convenience of having railway communication 60 miles nearer than it is at the present time; (2) that station produce now sent to Bourke, by either road or river, would be put upon the railway at Brewarrina, and charged for at local rates; (3) that inasmuch as the existing Bourke to Byrock section of the Western line is practically non-productive (the rates for station produce from either of those places to Sydney being nearly the same) the Railway Department would reap the benefit of absolutely new revenue, and the earnings of the branch from Brewarrina to Byrock would be amply sufficient to pay interest on the cost of constructing it as well as the working expenses; and (4) the high-class character of the country and its suitability for closer settlement under pastoral occupation, in proof of which the rents now paid are higher than in any other district within the jurisdiction of the Bourke Land Board.

It was pointed out to the Sectional Committee that above Brewarrina there are nearly 60 miles of water in the river navigable almost all the year round, and that goods arriving at Brewarrina by railway could sometimes be conveyed to their destination between that town and Walgett fourteen days before the state of the river below Brewarrina would permit of goods being brought up from Bourke.

UNCERTAINTY OF AGRICULTURE.

14. Grazing, the Sectional Committee ascertained, is practically the only industry in the district through which the railway would go, for so far cereals have been grown merely for station consumption in the form of hay; but it was represented by the local residents that the line would lead to increased settlement and to agriculture upon a larger scale than at present. While, however, in the opinion of the Sectional Committee, "there is no doubt that in fair seasons a comparatively small area may be cultivated profitably to meet local requirements," "owing to less favourable climate and other adverse conditions, it is questionable whether the Brewarrina District would be able to successfully compete against districts possessing more suitable soil and having a lower temperature and a greater and more regular rainfall, with the additional advantage of nearness to the best markets for the disposal of their surplus production."

On this question, it should be stated that in previous inquiries respecting railway proposals where, notwithstanding the fact that it was not likely the proposed line would pay at the outset, the full Committee have recommended its construction, such recommendation has only been made in cases where the railway would pass through agricultural districts affording an opportunity for close settlement and increasing production. In the Byrock-Brewarrina district, where the land is purely pastoral, there is no immediate prospect of either close settlement or agriculture.

THE COMMITTEE'S RESOLUTION.

15. After a careful consideration of the evidence, and of the report submitted by the Sectional Committee, the full Committee are of opinion that it is expedient the proposed railway should be constructed, provided that it be made legally binding upon the Crown lessees in the district served by the railway to pay, until the railway shall become self-supporting, one farthing per acre rent additional to their present or ordinary assessment, such additional rent to be credited to the Railway Commissioners.

The

The resolution adopted is shown in the following extract from the Committee's Minutes of Proceedings :—

“ Mr. Humphery moved,—‘ That, in the opinion of the Committee, it is expedient that the proposed railway from Byrock to Brewarrina, as referred to the Committee by the Legislative Assembly, be carried out, provided that it be made legally binding upon the Crown lessees in the district served by the railway to pay, until the railway shall become self-supporting, one farthing per acre rent additional to their present or ordinary assessment, such additional rent to be credited to the Railway Commissioners.’

“ Mr. Fegan seconded the motion.

“ Mr. Lee moved,—‘ That the motion be amended by the omission of all the words after the word “ out.” ’

“ The amendment was seconded by Mr. Hassall, and negatived on the following division :—

<p>Ayes, 5.</p> <p>Mr. Trickett, Mr. Clarke, Mr. Lee, Mr. Hassall, Mr. Farnell.</p>	<p>Noes, 8.</p> <p>Mr. Ewing, Mr. Humphery, Mr. Hoskins, Mr. Roberts, Mr. O'Connor, Mr. Fegan, Mr. Black, Mr. Wright.</p>
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“ The motion was passed on the following division :—

<p>Ayes, 11.</p> <p>Mr. Ewing, Mr. Humphery, Mr. Roberts, Mr. Trickett, Mr. O'Connor, Mr. Clarke, Mr. Lee, Mr. Fegan, Mr. Hassall, Mr. Wright, Mr. Farnell.</p>	<p>Noes, 2.</p> <p>Mr. Hoskins, Mr. Black.”</p>
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THOS. EWING,
Chairman.

Office of the Parliamentary Standing Committee on Public Works,
Sydney, 22nd June, 1898.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

MINUTES OF EVIDENCE.

RAILWAY FROM BYROCK TO BREWARRINA.

FRIDAY, 1 OCTOBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).	
The Hon. FREDERICK THOMAS HUMPHERY.	HENRY CLARKE, Esq.
The Hon. JAMES HOSKINS.	CHARLES ALFRED LEE, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	GEORGE BLACK, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee proceeded to consider the expediency of constructing a line of Railway from Byrock to Brewarrina.

Robert R. P. Hickson, Under Secretary and Commissioner for Roads, Department of Public Works, sworn, and examined:—

1. *Chairman.*] Have you a statement to make? Yes. It is as follows:—

Department of Public Works, Sydney, 29 September, 1897.

RAILWAY FROM BYROCK TO BREWARRINA.

As far back as September, 1881, a petition from residents of Brewarrina urging the construction of this line was forwarded by Mr. Russell Barton, M.P., and in November of the same year Mr. Secretary Lackey authorised a survey to be made.

In May, 1883, Mr. Whitton reported the completion of the survey, the length being 55½ miles; but no estimate of cost was made till July, 1889, when Mr. Deane reported that the line could be built for £242,400 = £4,366 per mile. This estimate was revised in June of the following year, the cost being reduced to £211,220 = £3,806 per mile.

In 1886 a proposal was made to guarantee the Government against loss in the event of its consenting to construct the line; but it was not taken up, and ultimately came to nothing.

Between the years 1885 and 1889 several deputations waited upon the different Ministers, urging the construction of the line; but no definite action was taken till May of the latter year, when Mr. Secretary Bruce Smith asked the Railway Commissioners for a report on the proposal.

In their report, dated 15th July, 1889, the Railway Commissioners stated the line could not, on commercial grounds, be recommended, but there was another aspect of the case. There was practically no means of communication between Byrock and Brewarrina. Ordinary roads, from the nature of the soil, were costly to make and maintain, and it was worthy of consideration whether an inexpensive railway might not be constructed (in lieu of an ordinary road) to afford a means of transit.

Colonel Wells reported that the cost of a road between the two places would be enormous. A ballasted road would cost at least £4,000 a mile, or £250,000, and the expense of maintenance would not be less than £11,000 per annum.

Mr. Scarr was also instructed to report on the proposal, and the conclusions, briefly put, at which he arrived were:— (1) The traffic would be confined to wool, stock, station, and store goods, and a limited number of passengers. (2) There was a fair prospect of the line proving a financial success, but it would be at the direct expense of existing lines. (3) There was a fair prospect of considerable stock traffic, but insufficient to compensate for the competition with existing lines for wool and goods traffic. (4) If an extension from Narrabri to Walgett was to be carried out, this line should not be constructed, as the two would be in ruinous competition.

With the object of making a cheap line, an amended flying survey was made by Mr. Burge, in October, 1892, the length of the line being 58 miles 40 chains, and Mr. Deane, in forwarding the report to the Minister, stated he could not see how the cost could be reduced below £2,623 per mile (to which had to be added to the total cost the sum of £19,600 for junction works, stores, &c.) unless the Railway Commissioners could supply a sufficient quantity of serviceable second-hand permanent-way material at a cheap rate, or would reduce the charge for carriage of new rails.

The matter then slept till April, 1895, when a deputation, representing the residents of the district, introduced by Mr. Willis, M.P., waited upon Mr. Secretary Young, and again urged the construction of the line. The Minister promised to give the matter favourable consideration, and in August of the same year Mr. Deane made a further revision of the estimate, and stated that although it may be very considerably lessened there are several features which prevent it being made as cheaply as the lines lately considered by the Public Works Committee. These are, firstly, that some extensive watercourses, including the Bogan River, have to be crossed; and, secondly, sleepers and ballasting will be expensive on account of the difficulty in obtaining them, and the freight on material, on account of distance, will be high. Mr. Deane proposed to include ballast for a quarter of the length only. The question of stations he had gone into with the Railway Commissioners, and these would probably involve an expenditure of £10,400. Under these conditions the estimate he arrived at for cost of the line, including engineering and office expenses and contingencies, was £2,340 per mile, or £138,060 for the 59 miles.

On receipt of this report, Mr. Secretary Young asked the Railway Commissioners for their views on the proposal, and the Commissioners, in reply, forwarded (11/10/95) a copy of a report made to them by Mr. Harper, Goods Superintendent, in which they concurred generally, although they were of opinion he had taken too liberal a view of the probable traffic, and they could not recommend the construction of the line.

In November, 1896, Mr. Willis, M.P., forwarded to the Minister a statement traversing the report of Mr. Harper, and therein Mr. Young minuted—

I should be pleased if the Railway Commissioners will say whether, in view of the statements made herein by Mr. Willis, and the fact that the locks proposed are not now likely to be proceeded with, they would now be prepared to recommend the construction of this line of railway.

R. R. P.
Hickson.
1 Oct., 1897.

There appears to have been no reply to this minute, but it having been decided to refer the proposal to the Public Works Committee, the Commissioners were requested to forward their report, in accordance with the provisions of the Public Works Act, of which the following is a copy:—

Proposed Line of Railway from Byrock to Brewarrina, 59 miles.

As requested by the Honorable the Minister for Public Works, and in accordance with the provisions of the "Public Works Act of 1888," section 13, we beg to report as under:—

<i>Cost of Construction—</i>	
The Engineer-in-Chief for Construction estimates the cost of construction of a light railway line (exclusive of land and compensation) at	£146,350
<i>Annual Cost—</i>	
Capital expenditure at 3 per cent.	£4,390
Cost of maintaining permanent way and traffic and locomotive expenses.....	4,750
Total Annual Cost	9,140
<i>Traffic Estimate—</i>	
Live stock and Goods	3,448
Coaching	775
Mails.....	618
Total estimated traffic	4,841

The estimated cost of the proposed line as shown above has been materially reduced since the question was first under consideration, as also has the cost of working and maintenance, the locomotive and traffic expenses being based on a tri-weekly service.

The estimated value of probable traffic has been made upon the most favourable basis, and it is doubtful whether the sum will be fully realised.

Notwithstanding the reduced estimate of annual charges on account of interest, working and maintenance, and the favourable estimate of value of probable traffic, a very considerable annual loss will ensue if the line is constructed.

It is worthy of special consideration that the larger proportion of the traffic would be diverted from the main line from Bourke, and would consequently correspondingly reduce the receipts therefrom; and further, there is little, if any, prospect of a new traffic being created.

Under these circumstances the construction of the line cannot be recommended.

The Common Seal of the Railway Commissioners of New South Wales was hereunto affixed, this second day of July, One thousand eight hundred and ninety-seven, in the presence of—	} CHARLES OLIVER, Commissioner. } W. M. FEHON, Commissioner.	(L.S.) (L.S.)
H. MCLACHLAN.		

2. *Mr. Lee.*] As the question of railway communication to Byrock is involved in the question of the locking of the river between Bourke and Brewarrina, could you tell us what has been the result of the weir that has been erected just below Bourke, and whether the Department contemplates extending that system? The weir that has been erected at Bourke has been a success. The cost, I think, has been slightly over the estimate, but as regards retaining the water it has been successful.

3. Equal to expectations? Yes.

4. Has the Darling been in flood since the weir was erected? Yes, a slight flood.

5. And up to the present time, it has stood the severe conditions supposed to be brought against it in time of flood? Yes.

6. I presume that the Committee have to consider this line on its merits, without any reference to what may be done in future? I think that is for the Committee to say.

7. Does the Department place this scheme before us in connection with any alternative scheme, or simply for us to say whether the line should be made for the development of the country? The scheme is submitted by the Department with a view of passing it if the Committee think it right.

8. There is nothing behind it in the shape of an alternative scheme? No.

9. There has been considerable influence brought to bear upon Parliament for many years by the residents to obtain railway communication to that district? Yes.

10. Beyond the facts you have placed before us, are there any other reasons known to the Department why it would be advisable to submit a line of this character under present conditions? I have given you all the facts that are in the possession of the Department.

11. *Mr. Hoskins.*] Has the Department ever considered that if a line is made from Narrabri to Walgett, or the river is made navigable by the construction of weirs, that the railway to Walgett or the navigation might make this line almost useless? I think that if locks are put on the river the line would not be justifiable.

12. *Mr. Wright.*] With regard to the question asked by Mr. Lee about the weir, what has been the experience as to the raising or lowering of the shutter of that weir? I could not tell you of my own knowledge. I believe there has been no difficulty.

13. Since the construction of that weir there has been nothing like a big flood in the Darling, has there? Not a heavy flood.

14. Not one that would submerge the whole thing? I am not sure that it was not out of sight for a short time.

15. Is Mr. Harper's report of 1895 the latest you have had from him? It is the latest that we have had. The Commissioners report over-rides that, and it is based, no doubt, on a later report from Mr. Harper.

16. The Commissioners state in their report that the probable estimate is estimated on a liberal scale? Yes.

17. *Mr. Roberts.*] Is this railway put before the Committee on account of the Committee not having recommended the locking of the Darling? It is put before the Committee on its merits.

18. Will not the annual loss come to something like £5,000 a year? £4,299 is the estimated amount.

19. Does the Department hope for any increased settlement in the district, between Byrock and Brewarrina? I do not think much can be expected.

20. Is the land there principally leased land? I think so.

21. How far is Brewarrina from Walgett? About 120 miles by water and 60 miles by road.

22. Is it in contemplation to touch Walgett with the railway? It is not proposed by the Department just now; but there is a proposal before you to make a line from Narrabri to Pilliga.

23. Are you in a position to say that Walgett would be the objective point? I could not see much justification for making a line to Pilliga, unless it was to go on to Walgett.

24. If we could assume that a line should go to Walgett, would it be a wise thing to construct a line from Byrock to Brewarrina? I am hardly in a position to answer that.

Henry

MINUTES OF EVIDENCE—RAILWAY FROM BYROCK TO BREWARRINA.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and examined:—

25. *Mr. Hoskins.*] In the statement which has been laid before the Committee by Mr. Hickson, it is stated that you had sent in three estimates of the probable cost of a line from Byrock to Brewarrina? I think it is very likely. The estimates have been revised from time to time.

H. Deane.
1 Oct., 1897.

26. Your later estimates of expenditure for the proposed line are considerably less than the original estimate? Yes.

27. What is the reason of that? Partly the lowering of prices, and partly a reduction in the style of design.

28. You propose to make this line a pioneer line? Yes.

29. Are there many watercourses to cross? There are two important watercourses—the Bogan River and the Tarrion Creek.

30. Will you require to have costly bridges over them? Yes; it would be necessary to have timber viaducts.

31. Will you make a statement, based on the last estimate of the line you propose to construct? I have here a copy of the estimate, which is as follows:—

BYROCK TO BREWARRINA.

Revised estimated cost of a single line of railway 58 miles 43 chains in length, with 60-lb. rails; ruling grades, 1 in 75 and 1 in 77 with the load; sharpest curve, 20 chains radius.

Description.	Estimated Cost.	Average per mile.
	£ s. d.	£
Earthworks.....	15,782 10 0	270
Timber bridges and small timber openings.....	4,919 15 0	84
Large bridges.....	7,791 19 6	133
Level crossings, cattle stops, and fences.....	2,055 0 0	35
Permanent-way materials.....	36,524 16 3	624
Freight.....	11,885 0 0	203
Platelaying at 1s. = £5,151 10s.....	34,902 0 6	596
Ballasting (½ ch.) at 3s. 6d. = £4,508.....		
Sleepers at 3s. 6d. = £25,242 10s. 6d.....		
Station works, including junctions and sidings.....	5,105 10 0	87
Station buildings: passenger building, £300; waiting-sheds, £300; passenger platform, £300; station-master's house, £300; goods-shed and platform, £350; loading banks, £450; 20-ton weighbridge, £300; 5-ton crane, £220; trucking-yards, £770; engine-shed, £500; carriage-shed, £275; coal-stage, £200; turntables, £1,100.....	5,365 0 0	92
Water supplies.....	3,000 0 0	51
Gradient and mileage-posts.....	878 2 0	15
Telegraph.....	878 2 0	15
Miscellaneous.....	1,000 0 0	17
Cost of works.....	130,087 15 3	.....
Engineering and contingencies, 12½ per cent., nearly.....	16,262 4 9	278
Total cost.....	146,350 0 0	.....
Average cost per mile.....	2,500 0 0	.....

32. Would you expect to get any ballast on the route between Byrock and Brewarrina? No; I think it will have to come from the main line.

33. Therefore, ballasting would be rather an expensive item? Yes; I put it down at 3s. 6d. per lineal yard.

34. You only propose to ballast in bad places? That is all, where required.

35. Is timber scarce there for sleepers and bridge-building? Yes. There is no timber for sleepers and bridge-building. It will have to be brought from the Dubbo district, the larger timber coming, probably, from the coast.

36. Has your Department ever been engaged in making preliminary surveys for the construction of the line from Narrabri to Walgett? Yes; some years ago there were surveys made.

37. If a line were made from Byrock to Brewarrina, would not such a line take away a great deal of the expected traffic on the Narrabri and Walgett line? I do not know that it would; but I have not studied the question from that point of view. Perhaps Mr. Harper could give you better information on that question.

38. I notice that in your statement of the proposed expenditure you have included water conservation;—does that mean that you have to make tanks to supply the engines? I think so. Of course at Brewarrina we should get water from the river; but the Bogan River and Tarrion Creek, I believe, are generally dry.

39. Do you think you have allowed a fair margin for that extra expenditure? I think so.

40. I suppose that this line would be somewhat similar to the line now working so successfully between Narrabri and Moree? It will be a light line.

41. Have you given any consideration to the proposal which has been mooted for locking the Darling River? I cannot say that I have.

42. Have you been to Brewarrina yourself? I have not. I intended to go, but I have not had time since this proposal was placed before Parliament.

43. Have your engineers and surveyors pointed out to you that if the navigation of the Darling River were made pretty permanent by the construction of weirs the produce of the district would be taken to Bourke, instead of going by the proposed railway? I think that is a fact which is pretty well understood—or at least the probability.

44. Is it not a fact that whenever the river is up all the produce from, and stores going to, Brewarrina are taken by the river to Bourke? Yes, I think so.

H. Deane.
1 Oct., 1897.

45. If the navigation of the Darling were improved so that vessels of light draught could navigate it during most of the year, as water carriage is so much cheaper than railway carriage, does it not seem probable that the line would not be very extensively patronised? I do not think it would under such circumstances.

46. *Mr. Trickett.*] I suppose you cannot describe the line in detail? I have a short description here which I will read, then I will supplement it:—

Byrock to Brewarrina Railway.

(Length, 58 miles 43 chains; estimated cost, £146,350, or £2,500 per mile, exclusive of land and compensation.)

This line branches from the Great Western Railway at 455 miles 62 chains, at the north-west end of Byrock station, and follows generally the travelling stock reserve No. 1,207 for about 19 miles; here, in order to avoid heavily flooded ground, it leaves the reserve and continues generally parallel to it, about 2 miles to the eastward, to Brewarrina, ending at 514 miles 25 chains from Sydney.

The country is flat and the grades easy, but some important watercourses are crossed requiring bridging.

47. Shortly after leaving Byrock the line seems to go away to the westward? Yes.

48. What is the object of that? It is chiefly to get the required grades. The country is generally flat, but there are slight undulations. I will now give you some further particulars. The datum to which the levels are reduced is 100 feet below high-water spring-tide in Sydney. The reduced level, after the commencement of the line, is about 595 feet above the datum—that is, at Byrock. Then the ground rises gradually till you get to about 461 $\frac{3}{4}$ miles. There the level is 724 feet. Then it is slightly undulating till you get to 466 miles, and there it is 787 feet; then the ground falls again until at about 470 $\frac{1}{2}$ miles it is 663 feet. So you see the ground is by no means level. Then it rises again till you get to nearly 473 $\frac{3}{4}$ miles, and it is 719 feet there; then it falls away with a gentle undulation until you get to 491 $\frac{1}{2}$ miles, and there you reach the bank of the Bogan River channel. The level there is 489 feet. Then the country still falls away slightly till you get to 501 miles, and there it is 483 feet. Then it is level for some considerable distance, only varying a foot or two, and at 507 $\frac{1}{2}$ miles the level is 491 feet. Then you come upon the Tarrion Creek, which is by far the most important watercourse met with. From there, after passing the creek, the ground pretty well preserves its level till you get into Brewarrina, and the level in Brewarrina is 491 feet. I have a section of the line which I will hand in. I have also a plan, to a 10 chain scale, and the Book of Reference.

49. *Mr. Hoskins.*] Is there much alienated land there? No; it is all Crown land, excepting portions Nos. 10 and 15A. Portion No. 10 is at 479 miles, and portion 15A is near the 492 miles on the Bogan River.

50. *Mr. Trickett.*] What length would the line go through before getting to them? Twenty-four miles and 37 miles from Byrock.

51. So that the land resumed on the route would be very trifling? Very slight.

52. At Brewarrina is there much expense for station purposes? No; the ground is very flat, and the buildings to be put up will be inexpensive.

53. The station would be on Government land? Yes.

54. Then the line presents no engineering difficulty? No; the heaviest work will be those viaducts over the river and the creek.

55. I suppose that the approach to the Bogan River would have to be of considerable length? Yes; it would be on piles.

56. Would it be similar to that at the Bogan Gate, half way to Condoblin? Yes—you mean over the Gunningbland Creek; but it will be more expensive.

57. What will be the worst grade on the line? One in 75.

58. The greater part of the line is through red-soil country, is it not? I have not noted that.

59. The greater part of the way is high land, is it not, and not subject to floods? It is high land.

60. Is it a line that would be likely to be affected in the same way as the Narrabri to Moree line has been? No, I think not.

61. There is not likely to be a large spread of water affecting the permanent way? No; the water is chiefly concentrated at these two watercourses, and I have made considerable provision for timber openings.

62. By box-drains along the route? Box-drains and timber openings.

63. I suppose you are aware that Brewarrina is looked upon as a very large stock country? Yes; I believe it is.

64. Has it not been a question whether the railway should not have gone to Brewarrina instead of going to Bourke? I cannot speak as to that.

65. *Mr. Clarke.*] This is to be a cheap line of railway? Yes.

66. Do you know anything about the description of roads that they have between Byrock and Brewarrina? No.

67. You do not know what is the cost of making roads in that part of the country? No.

68. You do not know the nature of the country at all? I have not been over the line myself; but I can get the reports if required.

69. You propose to ballast a portion of the line? Where it is absolutely necessary.

70. Is it a country as easy for the ballasting as that between Moree and Narrabri? It should be a much better country to build a railway through than Narrabri to Moree, on account of its undulating character. The difficulty to contend with on the Narrabri to Moree line has been due to the flatness of the country, and the overflow of the creeks over very large areas.

71. Some time ago it was stated that the cost of locking the Darling would be £150,000? Yes.

72. This railway from Byrock to Brewarrina would not cost so much? The cost of this railway will be £146,350, according to the estimate.

73. If the Darling should ultimately be locked, and the traffic should go by water instead of by land from Brewarrina to Byrock, would the people not have to pay river freight in addition to the railway freight? Yes; I suppose they would.

74. Then, in the event of the present line not being made, would not the people about Brewarrina be at a disadvantage as regards getting their goods to market? Of course it would be a convenience to them to have the railway, as they could travel more quickly by rail than by water.

75. Would they not have to go first to Bourke, then on to Byrock, and from there to Sydney? It would depend upon what they would have to pay whether it would be an advantage to them to have the railway.

76. Passenger traffic would still have to go by coach from Brewarrina to Byrock? Yes. 77.

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77. *Mr. Lee.*] How will the cost of this line stand as compared with the cost of the Narrabri to Moree line? It is a little more expensive. The average cost of the Moree line was £2,400 per mile.
78. This is practically the same line? There is not very much difference.
79. Would that estimate include the bridge across the Namoi? Yes.
80. The difference is about £80 a mile? Yes; on this line the sleepers would be more costly. That alone, I think, would account for the difference.
81. There are no sleepers in the district? No.
82. And not a great deal of ballast? No.
83. Do you intend to make the earthworks as you did on the Narrabri line? We shall carry them out in the same style.
84. Do you think the nature of the soil is such that the banks will stand in heavy rain? Yes.
85. Have you had any similar country under consideration elsewhere? I think we have had now pretty well all classes of soil, and the embankments stand very well.
86. There is a great difference between the country between Byrock and Brewarrina, and the country between Brewarrina and Bourke;—have you taken those features into consideration? Yes.
87. Would you care to give any opinion from a railway point of view as to the reaching of the river Darling by way of either Pilliga or Brewarrina? I do not think I am prepared to give any opinion.
88. Considering the close relationship of these two routes the Brewarrina and the Narrabri to Pilliga, both intended for some portion of the same trade—are you of opinion that it would be an advantage if these two lines were considered in conjunction with each other? They do not altogether serve the same districts. I do not know that I should recommend that.
89. You are aware that the Darling River when navigable is used for conveying a large quantity of station produce down towards Brewarrina? Yes.
90. If Brewarrina were the depôt for the railway traffic, it would, to a certain extent, interfere with the traffic that must be relied upon for a line if carried towards the river in the direction of Walgett? Yes, it might do so, but I have not studied the subject very carefully. It is rather out of my province.
91. Are you quite sure about the flood-level in this country? Yes; we have had careful investigations.
92. They have had some very heavy inundations there at times; town and district have been flooded? The Tarrion Creek spreads out very largely.
93. Are you making any provision against flood waters? I propose to keep the railway above the floods. I have a sufficient sum of money down for earthworks. I have put down £270 a mile, which, for this class of line, is quite high enough to provide, over a considerable length of line, fairly high embankments.
94. What number of water openings have you left in the vicinity of Brewarrina? The openings are not marked on the section, but with the experience that we already have I should certainly provide sufficient to make the line quite safe. In the neighbourhood of Brewarrina within the last mile and a half there is evidently a great deal of country that is liable to floods, and it would, of course, either have to be bridged over, or the embankments would have to be made sufficiently high to keep the rails out of it.
95. Does it mean that if a daily service had to be run the line would have to be better maintained or more strongly built? No; it might mean that more men would be put on to repair, that is all.
96. Not necessarily that the line would have to be built more strongly in the first instance? No, not unless the traffic were very heavy.
97. I suppose by "very heavy" you mean heavy trains, not frequency of trains? It means the quantity of traffic going over the line.
98. If the cost of maintaining it is based on a tri-weekly system, that cost would have to be increased if it were a daily service; then that would be a cost which would fall upon the maintenance branch? Yes.
99. Do you purpose dealing with the requisites for stock in any special way, having yards built to suit any special trucks? I have a sum of £770 down for trucking yards.
100. Are they to be on the same pattern as those erected in most other places? I should think so. At present the question of accommodation has not been thought out in very great detail.
101. The stockyards come under your Department? Yes.
102. Have you not received very many complaints, from time to time, of the unsuitability of the yards at which stock are trucked? I think every district would like to have a different style of yard.
103. Has it not been brought under your notice that in many cases horned stock are actually ruined when being put into the trucks, owing to the unsuitableness of the yard? That I cannot say. The present design of yards has been very carefully revised in conference with the Railway Commissioners' officers, and what we are erecting now I suppose is perfect as nearly as possible.
104. Then you are not contemplating any change in the design of your trucking-yards? No.
105. This district is known to be a very large stock-producing district, and a large proportion of the revenue is expected to come from stock? Yes.
106. Therefore it is one of those places at which, if an improvement could be made in the trucking-yards, it should be made? Yes, if it is necessary.
107. In view of the many complaints about these things, the Committee would like to know whether it is contemplated to make any special arrangements at Brewarrina? I do not think so. My reply is that the question of the design of proper trucking-yards has received special consideration during the last couple of years or so, and it is believed that we have now the best design.
108. At all events the Department does not intend to make any alteration? I know of no alteration contemplated. If any improvements were suggested they would receive consideration, and would be carried out if found desirable.
109. Inasmuch as the cost of the yards is not very much, and alterations are very easily made, I presume that the Department, in cases like this, if it sees a more suitable design adopts it? Yes; it is only a matter of small detail.
110. But you will admit that it is an important one, as far as the trucking of fat stock is concerned? Decidedly.
111. *Mr. Wright.*] Has there been much investigation of that country? I think so.
112. Has there ever been a line surveyed to Gongolgon? I am not sure.*
113. Has there been more than one survey made in order to get between Bourke and Brewarrina? Yes the present survey is a revised one.
114. Is that the only survey that has been made there? The present survey is a revised survey—a new survey.
115. It is considered the best? Yes.

116.

* NOTE (on revision) :—The route has been examined and reported against.

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1 Oct., 1897.
116. What kind of country is it from about 20 miles on this side of Brewarrina to close in to Brewarrina? There is a good deal of country there that is subject to floods.
117. Are you aware that in ordinary floods the whole of that country is under water? Not the whole of it.
118. A belt of country about 20 miles in width? A good deal of it.
119. Have you any description of the nature of the country and its soil? I have not the reports here.
120. It is very soft country, is it not? If you will allow me I will refer to the reports.
121. In what part of the town of Brewarrina is your railway station to be? Between Bokhara-street and Novena-street.
122. Right in the town? Yes.
123. On comparatively dry land? Yes.
124. Can you tell the Committee what water-openings you have got across the Tarrion Creek? I have not the details here, but I shall be glad to supply them.
125. Is this the best and shortest line that has been submitted? I do not think that it is the shortest, because it winds about considerably to get the ruling grade.
126. Is distance sacrificed to get a grade of 1 in 75? Yes.
127. Is there any necessity to get such a grade on a line that will never carry very heavy traffic? I think that a grade of 1 in 75 is the steepest that we ought to have.
128. You look upon it as the maximum? Yes; in that country for stock traffic.
129. According to Mr. Hickson's report, I find that one of your estimates was to construct the line at £2,626 per mile, and another to construct it at a cost of £2,340 a mile, or a total of £138,060, whereas now your estimate is to make the line at £2,500 per mile, or an increase from £138,000 to £146,000? Yes. I should have to refer to the circumstances under which that lower estimate was made. I am not satisfied that it was sufficient.
130. There is a difference of over £8,000? Yes.
131. That would point to the fact that the latest survey is not an improvement upon the former survey? It would imply that the estimate has been very carefully gone into, and that nothing has been left out.
132. Or that the previous estimate had been carelessly gone into? No; I do not think so. I am not prepared to answer the question; but I will take a note of it. I think, if I remember rightly—and I should like to correct my statement if it is wrong—that the lower estimate was based on the supposition that the line would be carried below the flood-level. Since then I have altered it, so that the line shall be kept above the flood-level.
133. That is the result of more mature deliberation? I expect the other estimate was made under instructions.
134. Having again thought out the whole question, you think that the estimate was a little too low, and you have increased it? Yes; it is a different line, as it were.
135. It is an improved line? Yes.
136. *Mr. Roberts.*] What is the exact length of the proposed line from Byrock to Brewarrina? Fifty-eight miles 43 chains.
137. Can you tell the Committee the distance from Byrock to Bourke? About 49 miles.
138. And the distance from Bourke to Brewarrina? Sixty-eight miles by road.
139. According to the statement put in by Mr. Hickson in 1889, the cost of the line was estimated at £4,366 per mile. Might I ask whether that estimate was prepared by you? I do not think so. I think that estimate was made in Mr. Whitton's time.
140. Then there is another estimate to construct the line for £3,806 per mile;—was that prepared by you? That would be a revision of prices probably.
141. Then it came down to £2,338? I think that was an estimate for a line which went below flood-level.
142. What would be the difference between a line estimated to cost £2,500, and a line estimated to cost £3,806? Of course, it is difficult for me to say without referring to the plans and sections. It is very likely that that line would be straighter, and that there would be heavier earthworks, and more ballasting. The bridge construction would be of the old type, which would not be so economical.
143. Would there be more sleepers? No; fewer sleepers.
144. Do you think that the line, if constructed at a cost of £2,500, will be capable of carrying all the traffic on it, and will be one that may be constructed with advantage? Yes; I should be quite satisfied with a line constructed for that money.
145. What amount do you propose to spend on earthworks? £15,782 10s.
146. What does that average per mile? £270.
147. That appears to be a fairly low rate compared with other lines? It is higher than we have had in some cases, but I have kept it sufficiently high to allow of embankments being raised through wet ground.
148. On The Rock to Green's Gunyah line the average per mile is £474? Yes, but there are heavy cuttings there.
149. Which do not exist on this line? No.
150. What is the estimated cost of the culverts and timber bridges? For the small openings £4,919 15s., but for the large bridges £7,719 19s. 6d.
151. What is the average for the large bridges? £133 per mile for the large bridges; for the small ones £84 per mile.
152. What is the cost of station buildings—passenger buildings, waiting-sheds, platforms, station-master's house, carriage-sheds, engine-sheds, coal-sheds, turn-tables, and so on? The total is £5,365, or an average of £92 per mile.
153. Will the station-master's houses be of the same class of architecture as you have recommended for these pioneer lines? Yes, only small timber houses.
154. What provision have you made for water supply, and what will be the cost? The cost will be £3,000. It will be necessary to have an engine-tank about half way along the line.
155. At what point? That remains to be decided. But possibly the depression of the Bogan River might be utilised.
156. In the estimated cost, have you allowed 12½ per cent. for engineering and contingencies? Yes.
157. Have these figures been carefully revised? Yes.
158. Do you feel sure that the line could be built for the sum stated? Yes; I have gone into it very carefully.

TUESDAY, 5 OCTOBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

John Harper, Goods Superintendent, Department of Railways, sworn, and examined:—

159. *Mr. Humphery.*] Have you prepared a statement for the information of the Committee? I have a report here which I made for the Commissioners, and which I will read. It is as follows:—

J. Harper.
5 Oct., 1897.

PROPOSED RAILWAY—BYROCK TO BREWARRINA.

(Distance, 59 miles; estimated cost, £2,338 per mile.)

I HAVE made a most searching inquiry into the probable traffic on this proposed railway, having had the opportunity of comparing the manifests of Messrs. Rich & Co., and Wright, Heaton, & Co., for wool and goods water-borne between Bourke and Brewarrina and the district beyond with the station books at Bourke, and have also analysed the returns of Byrock station.

As the Commissioners are aware, the great bulk of through traffic to and from Brewarrina is carried by river. During the past seven years the river has been available during the most important portion of the season, and any failure which has taken place has been during the months of January, February, and March, when the wool clip, which represents the most important feature of the business in this district, has been carried.

I may also mention that the Government have undertaken a very extensive work in connection with locking the river between Bourke and Brewarrina, for the purpose of making it permanently navigable. At the present time works, estimated to cost £19,000, are being undertaken 3 miles below Bourke, and I gather from Mr. McKinney, Engineer-in-Chief for Water Conservation, that borings have been made, and all the preliminary work undertaken in connection with providing for locks which will be necessary for the purpose mentioned. It will be seen that under these circumstances the probability of obtaining any traffic at Brewarrina, at such rates in competition with river-borne traffic, as will pay working expenses, is extremely doubtful.

Under the circumstances of an ordinary river, which has, up to the present, remained unimproved by snagging operations or otherwise, the rates between Brewarrina and Bourke have varied between 12s. 6d. and 20s. per ton, and the time of trip from sixteen to thirty-six hours; the steamers in some cases bringing as much as 1,200 bales of wool.

There is no doubt in my mind that, under the altered conditions which will arise from an improved river, not only will the time occupied in performing the journey be very materially reduced, but it will also be possible to improve the carrying capacities of the steamers and to reduce the freight to, probably, 5s. or 7s. 6d. per ton.

In the face, both of existing circumstances and the probable improvements, we could scarcely look to obtain any traffic from this district in competition with the steamers.

There is also another phase of the question. So far, the carrying companies established at Bourke, who have large vested interests in that town, have concentrated, as far as they possibly could, the river-borne traffic to that point. Should these interests be disturbed it is quite possible that we may find them seriously competing with us by taking traffic down stream to South Australia. I simply refer to this as being a contingency likely to arise by shifting our base of operations on the Darling. My own strong conviction is that, for traffic within access of the Darling and its navigable tributaries, reliance should be had rather upon the improvement of the means of water-carriage to Bourke than that any attempt should be made to tap other points of these streams.

In connection with the Queensland wool and traffic, it may be incidentally mentioned that the result of my inquiries shows that no Queensland wool or goods traffic was dealt with at Brewarrina during last season, which was the most favourable one we have had.

This would appear to indicate that even with the extension to Brewarrina we could expect very little, if any, diversion of this traffic to our lines, or even from Bourke and Moree.

From carefully compiled returns, I have ascertained that the population of the Brewarrina Police District is 3,175. Of this number not more than 2,000 would be within reach of the projected railway. The population of the town of Brewarrina is 500. The Crown lands of the district represent an area of 4,557,000 acres in occupation by 297 holders. There are 153 homestead leases, but it is currently stated that a large number of these are not occupied by the lessees. This is to a certain extent verified by the fact that the last sworn stock return only indicated 118 holders of stock in the whole district.

When I was at Brewarrina an impression prevailed amongst those who were candid enough to admit it that this number would continue to decrease.

I have deemed it necessary to make these general remarks in order that the Commissioners may appreciate the objections which exist to constructing the railway to what may be considered a splendid pastoral district.

Estimate of traffic.

The relative distances from Darling Harbour to the centres at which the present traffic is dealt with, are:—

Byrock	457 miles.
Bourke	504 „
Brewarrina	516 „

The rates to and from Bourke and Byrock for general goods are the same, *i.e.* £41 per truck load. The same applies to sugar, wire, iron, rice, and wool. The rates for stock are:—from Bourke, £9 7s. 9d., and Byrock, £8 13s. 9d.

As already indicated, serious regard must be had to river competition, and in making my estimate I have taken the most favourable season and an arbitrary rate for wool and goods, which I consider it is doubtful if we could maintain in the face of the competition referred to.

Estimate of traffic between Byrock and Brewarrina, including up stream to Walgett.

	£	s.	d.
Goods, 2,000 tons at 10s.	1,000	0	0
Wool, 3,100 ton, at 10s.	1,550	0	0
Wool, 330 tons at 7s. 6d. (wool on route of line between Byrock and Brewarrina)	123	15	0
Live-stock, 1,000 trucks at 15s. 6d.	775	0	0
Passengers, 1,500 at 9s.	675	0	0
Coaching	100	0	0
Mails	618	0	0
	<hr/>		
	£4,841	15	0

Live-stock.—Quantity shipped last year at Byrock and Bourke, doubled.
Passengers.—Calculated at local rates.

If

J. Harper.

5 Oct., 1897.

If the traffic arriving at Brewarrina for and from Walgett and above stream were excluded, the estimate would be:—

	£	s.	d.
Goods, 1,300 tons at 10s.	650	0	0
Wool, 1,500 tons at 10s.	750	0	0
Wool, 330 tons at 7s. 6d. (wool on route of line between Byrock and Brewarrina.)	123	15	0
Live-stock, 1,000 trucks at 15s. 6d.	775	0	0
Passengers, 1,500 at 9s.	675	0	0
Coaching	100	0	0
Mails	618	0	0
	£3,691	15	0

With reference to the stock, I am very doubtful if 1,000 trucks would be reached during a good season between Brewarrina and Bourke and Byrock. There are three excellent stock routes, one of them passing through Charleton and Tarcoom runs is 2 miles in width, and for a great portion of the distance carries a large quantity of "mulga," which even during a dry season would permit of stock being driven to Byrock for trucking purposes.

Should it be decided not to proceed with this railway, I would suggest for the consideration of the proper Department that water should be provided where necessary on this route in order to enable stock to reach Byrock.

160. Do you show in your report the probable loss on the line? No; that phase of the question has been dealt with by the Commissioners.

161. Are we to understand that the maximum earnings of the railway, assuming Walgett to be reached by the extension from Narrabri or Coonamble will be £3,691? No; I do not say that. I say it is doubtful whether we shall get the traffic. That represents the maximum output of the district.

162. Have you estimated what portion of that traffic would probably reach the railway at Brewarrina, or between Brewarrina and Byrock? No; I have given the whole of the traffic of the district. That represents the traffic of the district with the rates fixed as low as I could possibly fix them.

163. You have given the possible earnings? Yes.

164. What is your opinion as to the probable earnings? That may be very much discounted by the river competition. It is impossible to say, where you have water competition, how much an estimate of this kind might be discounted; that I prefer to leave to the Committee.

165. Are we to understand that at present the rates from Byrock are similar to the rates from Bourke? Yes; both as regards wool which represents the staple of the district, and goods of ordinary consumption. There is a very small difference in some items, but it is almost inappreciable. On iron, rice, and wire the rates are the same at Bourke as at Byrock. There are articles which enter, to a small extent, into consumption, the rates on which differ. The maximum difference is 9s. a ton.

166. *Mr. Wright.*] In favour of Byrock? Yes.

167. *Mr. Humphery.*] Then, when the river is navigable, it is just a question whether the freight by steamer is greater or less than the carriage by the railway between Brewarrina and Byrock? Yes; that is precisely the position.

168. Although Byrock would be, in round figures, 60 miles nearer Sydney than Bourke, yet the carriage being the same, the cost to anyone using the railway would be no greater from Bourke? No. In regard to stock the difference is greater.

169. Explain in what way? The stock is carried on a mileage basis without competition. Of course, the steamers cannot carry stock down to South Australia. The charge from Byrock is £8 13s. 9d. per truck; Bourke, £9 7s. 9d.—a difference of 14s.

170. What would the rate be from Brewarrina? I have allowed 15s. 6d. in my estimate.

171. Then 15s. 6d. would have to be added to £8 3s. 9d.? Yes.

172. Does all the traffic of the line north from Bourke and Walgett reach the railway? No; not necessarily. There are occasions when there is no river, and it comes into Narrabri.

173. It reaches the railway on the east? Yes; that is until you get to the Queensland border.

174. Will you explain what additional traffic would come to the New South Wales railway system on the construction of a line between Byrock and Brewarrina? Taking a line due north from Walgett, all the eastern traffic goes into Moree.

175. I suppose that when the river is not navigable between Brewarrina and Bourke, the traffic finds its way direct to Bourke and Byrock? Yes.

176. What additional traffic will come to the Western railway system by reason of the construction of this proposed line? I cannot conceive of any additional traffic coming. Under existing circumstances we are effectually debarred from getting any Queensland traffic.

177. In sending traffic from Queensland, is there an export duty? Yes.

178. And you have to take that into consideration in fixing the rates for the carriage of wool? Yes.

179. Therefore you offer an inducement? Yes.

180. What are the distances from Walgett *via* Narrabri, to Newcastle and *via* Coonamble, to Sydney? The distance from Walgett to Newcastle *via* Narrabri is 470 miles, and the distance from Walgett *via* Coonamble to Sydney is 462 miles.

181. What is the rate by the present road from Narrabri to Newcastle as compared with the charge from Bourke to Sydney? Will you pardon my suggesting, in connection with the Narrabri traffic, that you have to deal practically with Sydney. Eighty per cent. of the wool delivered at Narrabri has to come to Sydney to be offered, whether it comes by rail or steamer from Newcastle.

182. Does the northern wool come to Sydney? Nearly 70 per cent. of it is offered here.

183. Seventy per cent. of the northern wool brought by railway comes to Sydney? Yes; my object in mentioning that is to keep before the Committee the fact that Sydney is the place where the traffic is eventually disposed of.

184. *Mr. Wright.*] Sydney is the objective point of 70 per cent. of the wool? Yes; and for that district Sydney is also the depôt for 85 per cent. of the live stock.

185. *Mr. Humphery.*] I asked for a comparison of the rates? The rate for wool from Bourke is £4 a ton, and the rate from Byrock is the same. The rate is £5 for scoured wool and £4 for greasy wool. We do not carry more than 12 per cent. of scoured wool, and we generally discard it for purposes of approximation. From Narrabri to Newcastle the charge is £2 13s. a ton for greasy wool, and £3 10s. 9d. for scoured wool.

186. Assuming a railway extension to Walgett, and calculating at the same rate, what would the cost be for wool from Walgett instead of from Narrabri? 69s. to Newcastle, and 87s. to Sydney. Then, of course,

course, there is another consideration. I am quoting through rates by the Northern line to Sydney. As a matter of fact, the steamers are able to carry the traffic between Sydney and Newcastle at a cheaper rate than we can carry it at.

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5 Oct., 1897.

187. Have you given me the rate charged? I have given you our published rate through to Sydney from Narrabri, and through to Newcastle. I say the steamers carry the wool to Sydney more cheaply than we do.

188. Is there any appreciable difference? Yes; a difference, including cartage in Sydney, of about 4s. in favour of water carriage.

189. Have you any other comparison that it will be convenient to give us now? I do not think so.

190. What traffic at present reaching the western system would be diverted in the event of a line from Narrabri to Walgett being constructed? I could not say. I have no idea what rates would be charged. Assuming that a line were constructed to Walgett, the conditions might be altered. Is this not anticipating my evidence on another line which is before the Committee.

191. If you are going to divert from the western system to the northern system traffic at present carried on the western system, that point must be inquired into? My own impression is that if a railway were made from Brewarrina to-morrow, and if a railway were made to Walgett, we could not prevent the diversion of the wool traffic, from near Brewarrina or Walgett; it would go down stream to Bourke.

192. Do you say, it would be cheaper to send the wool from Bourke than from either Brewarrina or Walgett? Yes, I think so. When the wool was once on the steamers we should have to make rates to pick it up at Bourke.

193. Then, is this your view: That the construction of a railway from Byrock to Brewarrina beyond being of some convenience locally, will not in any way increase the earnings of the railway? I do not think it will. On the other hand, I think it would be an additional length which, in certain seasons may, when the river is not navigable, serve the purpose which the road serves at present, and which, under ordinary circumstances, assuming that the rates are made low enough, may deprive the existing main line of some portion of its traffic.

194. Will you explain in what way it can deprive the existing line of any traffic? The traffic would probably be delivered at Brewarrina that comes to Bourke at the present time.

195. What difference would that make;—does it not mean that you would carry traffic over 60 miles between Byrock and Brewarrina instead of between Byrock and Bourke? You increase the capital cost of the railway by £140,000 to form a competitor with an existing line, and you diminish the earnings of that line.

196. Your contention is that the cost of the proposed line between Byrock and Brewarrina will leave a permanent charge upon the railway for interest upon capital and annual expenses? Yes; that is my contention.

197. And that it will do that without, in any way, swelling the earnings? Yes.

198. When were you last in Brewarrina? In 1895.

199. You have not been there since you prepared your report for the Railway Commissioners? No.

200. Do you think that in the course of time you could overtake the annual cost by fixing special rates between Byrock and Brewarrina? I do not think so, because so long as you have the river a factor, and competition on it increasing, I do not see how you are going to improve the condition of affairs. Apart from that, since 1895—I do not know for what reason—the position generally in that district has not improved very much. I had some information from most reliable sources the other day which will lead us up to the present year, and with the Committee's permission, I will read it. In the seasons 1893–94 there were carried by the river, from Brewarrina and intermediate stations, between there and Bourke, 13,000 bales of wool.

201. Do you distinguish between the quantity of wool carried from Brewarrina and the quantities from intermediate stations? No; I can scarcely do that without a great deal of trouble. Altogether there were 18,000 bales carried during that season—1893–4—and of that quantity 13,000 bales were carried by the river. In 1894–5 there were 17,468 bales carried, of which 12,528 bales went by the river. In 1895–6 there were 10,000 bales of wool carried, of which 209 were carried by the river. Of course, that indicates a failure of the river. In 1896–7 there were 9,876 bales carried, of which 2,608 bales went by the river.

202. The difference between the 2,608 bales and the 9,876 bales represents the number of bales of wool which reached Bourke by team? Yes; either Bourke or Byrock. From Walgett and above in 1893–4 there were 9,270 bales carried altogether, received from the western stations irrespective of Narrabri.

203. Would you mention the point at which that wool reached the western system? Of this quantity, 8,755 bales were carried by river. In the season 1894–5 there were 8,800 bales carried, of which 8,255 reached Bourke by river. In the season 1895–6 there were 2,462 bales received at western stations, of which 17 arrived by river. In 1896–7, last season, there were 2,061 bales received, of which 924 were carried by river. From the intermediate districts between Brewarrina and Byrock on the route of the proposed line in the season 1893–4 there were 1,253 bales received at Byrock. In 1894–5, 2,162 bales; in 1895–6, 3,265 bales; in 1896–7, 4,182 bales.

204. Can you say approximately what proportion of that would have gone to Brewarrina had the railway been constructed? I cannot in the absence of any knowledge as to what the river conditions might be. That has to be reckoned with, and I cannot tell what aspect it may assume. We are concerned with the question every time there is a good river to Bourke for a much greater distance than exists between Brewarrina and Bourke. Every time there is a rise in the river we lose a certain amount of traffic, owing to the river existing over a journey of approximately 1,500 miles.

205. Is it your experience that much of the northern traffic by the river passes Bourke? No, it does not pass Bourke down stream. The wool does not go down stream. We lose no wool at all. An odd clip might pass down the river occasionally, but it is quite exceptional.

206. The whole of the traffic coming in from the north and north-east to Bourke at present reaches the railway? Yes; it is not carried past Bourke.

207. Would a railway from Byrock to Brewarrina intercept any traffic at present lost to the railway? No; absolutely none.

208. Can you say what advantage the railway would be locally? It would be a very distinct advantage to the district.

209. In the way not only of convenience at the present time, but of development? It would be a very distinct advantage to the district; but I am not prepared to say that any great development would arise from it.

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210. In what way would it be advantageous to the district? No doubt the fact of having a railway to Brewarrina would give a higher value to the land, and the township of Brewarrina particularly. No doubt anyone having land in the vicinity of Brewarrina would profit by reason of being able to reach a railway station close at hand, instead of having to drive stock 60 miles.
211. There would be advantages to the district, but it would not be remunerative as a railway? No.
212. Do you know the district between Brewarrina and Byrock? I have travelled it over all three routes.
213. Did it strike you that there would be any difficulty in the way of the construction of the line? No, it should be a comparatively easy line to construct; but of course there is a river to cross, and there is Tarcoom Creek. There is a good deal of swampy country. I do not know what engineering difficulties that might entail.
214. The greatest difficulty, I suppose, that presents itself to you from a traffic point of view is the competition of the river? Yes.
215. Assuming the construction of a railway between Narrabri and Walgett, would you gain any additional traffic from the north? No; we should be robbing some other part of the system, because, as I have already pointed out, as long as the existing barrier exists on the Queensland border, I cannot conceive any very large development of trade.
216. Would you be in a position to offer inducements to bring the traffic to the system? I am afraid we cannot. I have a letter in my pocket from two or three Queensland people, but I am afraid we cannot offer them anything against the £2 10s. a ton duty.
217. Your differential rates would not cover that? No; and there is no guarantee that if we could offer sufficient inducements, the duty would not be increased to £5. I fancy that the disposition is that way.
218. *Mr. Trickett.*] What was the Brewarrina wool traffic for the year 1893-4? From Brewarrina and intermediate points there were 13,018 bales; in 1894-5, there were 12,528 bales; in 1895-6, there were 208 bales; in 1896-7, 2,608 bales. From Walgett in 1893-4, there were 8,755 bales; in 1894-5, there were 8,255 bales.
219. You will find from the evidence taken on the locks and weirs that Mr. Shainwald made an estimate considerably in excess of yours;—he says in the season 1893-4 the total river-borne wool from two points would be 22,000 bales; and he gives 26,000 for 1894-5, and 24,000 as against 21,000? My returns are checked by the wool that we receive at Bourke. It may be that intermediate stations have been included by him, which we should not include.
220. Mr. Shainwald's evidence shows that up to 1893-4 the quantity of wool sent from Brewarrina and Walgett to Bourke exceeded by 4,000 bales the quantity that you give? The figures I have handed in are correct. The difference may be accounted for by his not taking exactly the same points or the intermediate stations.
221. Do I understand that you favour the locking of the river between Bourke and Brewarrina? Yes; I am strongly of opinion that the best way to utilise the river and to afford transit for heavy traffic is to improve the river.
222. Will you state why? For the simple reason that carriage by water is very much cheaper than carriage by rail; and water carriage has always been, under all circumstances, within our experience, the most formidable competitor with any line of railway that has ever been built in New South Wales, and is always likely to be. I speak from our experience of the Murrumbidgee. I speak from our experience of the Darling at Bourke. I speak from the wider experience of our competition on the North Coast, at Newcastle, at Grafton, on the South Coast, and at other points.
223. Can you fairly make a comparison with the sea-going portion, seeing that that is a coal traffic? No; it is, unfortunately, not a coal traffic.
224. What is it? Traffic in all kinds of merchandise, especially that from which the higher rates are derived on the railway.
225. Does it apply to the carriage of stock? Certainly not. I may mention what our experience is in connection with stock. During a good season when stock can travel, the owners are not anxious to join the railway at the nearest point; they frequently make the stock travel far longer distances parallel with the railway than the distance between Brewarrina and Byrock. I also wish to emphasise a matter to which I draw attention in my report. I do not know how the thing stands to-day, but in the year when I came by Tarcoom back from Brewarrina there were any number of fat stock beyond Brewarrina which could not reach a market on account of the roads being impassable. I know that the whole of that travelling stock route 2 miles wide was in the occupation of pastoral tenants, and there is absolutely no provision made for permanent water on it. On the other hand, the route by Gongolgon, which is about half a mile wide, and not a suitable road for stock—stock could not be driven over it—has been supplied with permanent water. Practically the road by Gongolgon to Bourke forms two sides of a triangle. The other is a direct route, and it carries a great deal of dense mulga, which is very suitable for travelling stock. In my report I drew attention to the necessity for opening that route and making better provision for stock passing in that direction.
226. Then you do not think that even for the transport of stock, this railway would be availed of to such an extent as the people in the district anticipate? I do not.
227. Except in drought times? Of course, instead of carrying stock for wool they might fatten in the district. The returns I have obtained of stock produced in the district which would be served by the line and trucked at Byrock and Bourke are as follows:—In the year 1893-4, 135 trucks; 1894-5, 319 trucks; 1895-6, 634 trucks; 1896-7, 862 trucks. These consignments have been identified as coming from the district which would be served by this line. I am not going to say that the existence of the railway there might not alter production; it might pay them to fatten stock.
228. Is the carriage of stock a profitable thing for the railway? All our business is profitable if we get enough of it.
229. I understood you to say that if the river were made navigable, it would tend to send the trade into the colony of Victoria? If the river were made navigable we should have to make efforts to prevent it from going.
230. Unless some special rates were imposed the tendency would be for our trade to go that way? Assuming that the river was made navigable as far as Bourke or Wilcannia, the risks of the lower river are such that with ordinary rates we might be able to secure the traffic. It is more than probable—and

I hope it will be realised—that the railway between Bourke and the Bogan will be used in the transport of heavy traffic. It is a legitimate use of the river, and a legitimate use of the railway.

230½. *Mr. Hoskins.*] Is it not a fact that during the last two or three years a great deal of merchandise going through Wilcannia is taken down by steamer from Bourke? Yes; but as a matter of fact we do not always know how it gets to Bourke. It is one continual fight on the river. We make a rate to-day on a heavy line, and perhaps in three months' time it is absolutely altered by competition on the river.

231. Is it not a fact that Messrs. Rich & Co., of Bourke, have established a line of steamers on the river to run down to Wilcannia? They have, but they have a line running from South Australia to Wilcannia, by which the bulk of their supplies go. They are trading from both ends. We do not know what goods come up the river, but we know what the possibilities are. The uncertainty of the navigation of the river is the only help to us in fighting for the traffic.

232. Since the tariff has been so low, has not the trade in merchandise from Sydney to Bourke, and Bourke down to Wilcannia, largely increased? I think it has increased more owing to the river not being very favourable lately. As a matter of fact, our revenue at Bourke is falling off. We had a rate of £3 per ton for sugar, but we had to reduce it to £2, owing to the steamer competition at Bourke from South Australia.

233. *Mr. Trickett.*] Which do you consider the better trade centre with regard to wool and stock, Brewarrina or Bourke? That is rather a difficult question; but I think Brewarrina might have been made a better township than Bourke is to-day.

234. That is if the railway had gone there in the first instance? Yes. I think that probably the Queensland trade might have been tapped from Brewarrina under more favourable circumstances than from Bourke.

235. Would you go so far as to say that, supposing the Bourke line had not been constructed, you would have thought it better to have had a line from Byrock to Brewarrina than from Byrock to Bourke? I do not think it was necessary to go to Bourke at all. The line should have gone due north, following the Bogan. I think a good line, ignoring both places, might have been discovered near the Queensland border, in the neighbourhood of Barringun.

236. I understood you to say that the rate of the river freight had ranged from 12s. 6d. upwards? Yes.

237. When a Sectional Committee was at Brewarrina, all the leading storekeepers and carriers were asked that question, and they all said that they had never known it to be less than £1;—where did you get your information? I got it confidentially, and from most authentic sources. It is not every one who knows the rates at Brewarrina.

238. We asked many leading men, and they all denied any knowledge of such a low rate of freight? I had very satisfactory evidence placed before me that such freights had been charged, and I have no doubt that the Committee can get that evidence if they apply to principals. I may mention that it is not by any means a low rate there, in view of the fact that we have to quote £2 a ton from Sydney to Bourke to prevent the sugar business going by South Australia.

239. Do I understand you to say that you allow 7s. 6d. a ton for goods between Brewarrina and Bourke? No; 10s.

240. What is the road carriage? I think about £2 a ton.

241. Is not that rather a big jump to take down to 10s.? No; we have to take bigger jumps than that.

242. On some of those short lines of railway, would it not be more like 15s. or £1? I do not think so, because we have been dealing with traffic within 12 or 20 miles of a railway line. When you have teams coming in from the back with wool, it is very different from a man starting from a farm.

243. Do you not think that 15s. is a rate that would be readily paid? I do not think so. The people at Byrock at one time used to pay more than the people at Bourke, because the people at Bourke were served by the river. The people at Byrock were not content, neither were they anywhere along the line, the result being that we had to reduce our charges generally, and to make the Bourke rate the maximum rate for the line. I do not think that in a district like that, where competition is so keen, you could levy a local rate at all.

244. How much is your rate? There would be no difference in the ordinary rate for either wool or goods. The ordinary merchandise—rice, sugar, and wire—are practically the same to-day at Bourke as they are at Byrock. We should be in this position, that with a difference of 47 miles and 59 miles, we should be charging 10s. a ton more for the 59 miles than for the 47 miles.

245. Do you look upon the district round about Brewarrina as one in which agriculture is likely to increase? I do not think so, unless some well-defined scheme of irrigation is carried out. I cannot conceive, under existing conditions of rainfall and other circumstances, that much can be done.

246. Therefore you cannot look for any large increase in railway traffic in that direction? No.

247. It must be regarded chiefly as a pastoral traffic? Yes.

248. Is not the extra handling of the goods, passing them on to the steamers and then on to the railways, a frequent cause of complaint? It is; but it is wonderful how a small difference in freight will get over it. When wool arrives at Morpeth or Newcastle, intended for Sydney, I do not think that we get more than about one-tenth of the whole of it for carriage by rail. The balance is put into steamers at Morpeth and Newcastle, and either exported or sent to Sydney.

249. Is there anything between Brewarrina and Byrock that would be likely to create an increased traffic? No; there is no settlement until you reach the Bogan. There is some red-soil country there; but I am afraid that the rainfall is too small. The soil is excellent. In the neighbourhood of Gongolgon I have seen some of the best oranges that I ever met with growing by irrigation in a Chinese garden. I never met with better oranges in my life.

250. *Mr. Clarke.*] I suppose you are well acquainted with the road between Byrock and Brewarrina? I have traversed it two or three times.

251. What kind of roads have they there? Some of them are very bad. I have had two experiences there. I have been there in time of heavy weather, and I have been there in time of drought. At Gongolgon more or less public money has been spent on the road, but nothing has been spent on the Tarcoom-road.

252. Are the people in that neighbourhood, who have to come to Sydney, compelled to go by way of Bourke? They can go to Byrock. A mail-coach runs there, and I think they have a service five days a week.

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253. I suppose they go whether the roads are good or not? The roads were good enough when I passed over them.
254. Is that not a kind of country where it is difficult and expensive to make roads, on account of the want of metal? Yes, I suppose they would have a difficulty; but there is metal along the Gongolgon-road, and metal can be found on the other road. There are plenty of gravel ridges on the Tarcoom-road.
255. Would it not be almost as cheap to make a light railway as to make and maintain an ordinary road in such country as that? It might be as cheap to make one, but I do not think it would be as cheap to maintain. If you build a railway you have to keep engines running, and employ fettleers on it.
256. Would not a road in country like that involve a great expense? They do not get very much traffic on country roads generally.
257. What does the traffic there generally consist of? I will read the figures as to the traffic which came into Byrock during the years which I have mentioned. In the year 1893-4, 522 bales of wool went to Byrock from Brewarrina, 731 bales from the Tarcoom district, making a total of 1,253 bales of wool. In 1894-5, there were 913 bales of wool from Brewarrina and Goodooga, and 1,249 from Tarcoom, making a total of 2,162 bales. In 1895-6, 2,687 bales from Brewarrina and district, 578 from Tarcoom. In 1896-7, 3,477 bales of wool from Brewarrina and district, and 705 from Tarcoom and district, making a total of 4,182. That represents the whole traffic in wool which came on the Byrock-road. During the year 1893-4, there were 177 tons of goods to Byrock; 613 during 1894-5; 660 in 1895-6; 876 during 1896-7—that is, taking the maximum years when there was no river, 1896-7, about 1,500 tons, roughly speaking, went into Byrock, passing over the two roads there during the twelve months. Then there is the river road from Bourke. In 1893-4 there were 430 tons of wool passed by road to Brewarrina and district. That is exclusive of Walgett. In 1894-5 there were 700 tons; in 1895-6 there were 1,400 tons; in 1896-7, there were 1,100 tons of goods; in 1893-4 there were 172 tons; in 1894-5, 600 tons; in 1895-6 there were 1,100 tons; in 1896-7 there were 900 tons.
258. You have stated already that the country is a purely pastoral country? Yes.
259. Not adapted for agricultural purposes? No, not with ordinary rainfall. I have testified to the richness of the soil.
260. The soil is good? Yes.
261. It is the want of a regular rainfall that prevents it from being used for other than pastoral purposes? Yes.
262. Does the stock traffic now go from Brewarrina to Byrock, or by way of Bourke? Most of it goes to Bourke.
263. Not by the river? No; by travelling. Some of it goes down the Bogan.
264. If the Darling were locked would the cattle go by the river? Certainly not; not by steamer.
265. I suppose, from the tenor of your evidence, that you agree with the Commissioners that it is not desirable to make this railway at the present time? I think not; I think the whole question should be settled—whether those rivers are going to be made navigable. If they are, I cannot conceive that the railways will pay anything like working expenses.
266. The Public Works Committee have decided that it is not desirable to lock the Darling at present? There were conditions surrounding that, were there not.
267. There were? Those conditions might be realised.
268. But it would be advisable to see how the lock at present erected at Bourke would be able to withstand the floods? Yes.
269. Have there been any floods since that lock was completed? I do not think so.
270. We have not had sufficient evidence whether the locks and weirs would be a success? No; in the absence of definite information, it would be unwise to make a railway which, to a certain extent, would be competed with by the river. A waterway, such as the Darling, must be improved.
271. If you improve the Darling from Brewarrina to Bourke, you must continue the improvements further? That will have to come.
272. Would not New South Wales be making a river to take away the traffic to another colony? I suppose we shall have to face the idea of being a united Australia soon.
273. *Mr. Lee.*] Could you give us what, in your opinion, would be the traffic that will be obtained by the line if it is made? Yes.
274. We already have two estimates—one of £4,841, and the other £3,691? Yes; one includes the Walgett traffic, and the other the traffic falling in at Brewarrina.
275. The Commissioners say they are of opinion that you have taken too liberal a view of the traffic; they do not think it will be realised? Mine is not an estimate of traffic; it is a statement of what the district has produced. But in my report I distinctly say that with the river there, there is no guarantee that we shall get that traffic.
276. Do you think that you have very largely under-estimated the traffic? I am absolutely sure that I have not.
277. Do you not think 1,000 trucks of stock a year is a small number? I have given double the quantity of stock that has come from that district.
278. Is it not a district where the movements of stock are very large? Yes.
279. I understand that you have drawn no line between Brewarrina and Bourke, showing what traffic would gravitate to Bourke, and what traffic would gravitate to Brewarrina? I cannot have any knowledge of what the steamers may do. The matter is absolutely in their hands.
280. You have taken your own gross returns at Bourke? Yes.
281. Have you tried to locate that traffic? I have absolutely located it.
282. If you have located the traffic, you must have drawn a line showing which way the traffic would go? Yes; as far north as the Queensland border.
283. What portion of it would naturally go to Bourke, and what portion to Brewarrina? The traffic which I have given here, leaving the river out of the question altogether, would give some to Narrabri, some to Bourke and some to Byrock. Assuming that there were no river the great bulk of it would find its way to Bourke, or would be brought into Brewarrina and shipped there.
284. You would get it only at Bourke? Yes.
285. Is it not a fair assumption that if a line were made 60 miles further into the interior of that pastoral district, it would be more likely to attract traffic which would not come to the railway? No; I am absolutely

absolutely sure that it would not, because we are met in the north with an absolutely insuperable barrier in the shape of an export duty imposed in Queensland. J. Harper.

286. You have got over that in other cases? We have got over it as far as we can. We have lost 20,000 bales of wool at Bourke this year. 5 Oct., 1897.

287. If that duty were abolished, of course it would make a great difference to your earnings? I do not know that it would make a great difference as far as this line is concerned, but it might generally. Before the duty was imposed, the only Queensland clip that we had coming into Brewarrina was a small clip of about 500 bales.

288. There must be a future for that district? I think it has a very good present. I do not think that a railway will make either its present or its future.

289. You have told us you do not see how the traffic is going to increase in the future; but surely that country is not going to stand still? I have not thought out the problem as to how it is going to improve.

290. Has that depôt, being at Bourke, attracted traffic there? The river had been for years carrying supplies to the station before we went to Bourke. We have been winning traffic from the river every year.

291. You have had experience of Bourke, which was practically an unknown country? Yes; quite an unique experience too.

292. Here is another point;—the next thing is to strike out from that line in an opposite direction a distance of 60 miles, and will not that have the effect of attracting a great deal of traffic that you have not had? I cannot see it. I have to appear before the Committee in connection with two or three other railways, all more or less intimately associated with this, and I should like to have the merits of all of them weighed.

293. You know the country higher up, and the proposed connection between Walgett and all those other places;—does your experience lead you to suppose that both of these proposals should be considered alongside of each other? It does.

294. As the case is presented to us, it would appear that the earnings of the line would just about cover the working expenses? That is, assuming that we get the whole of the traffic.

295. You cannot see how the traffic is going to be sufficient to pay interest on working expenses? No.

296. *Mr. Roberts.*] When the Sectional Committee was at Bourke, Mr. Andrew David Kerrigan gave evidence, and he said this:—

I am a native of Brewarrina, and have been with Messrs. E. Rich and Company for fourteen years. I have a full knowledge of the traffic of the river. The present traffic between Bourke and Brewarrina is 10,000 tons—4,000 tons up stream, and about 6,000 tons down stream. The present rate for the carriage of wool is 25s. a ton delivered on the trucks, and including all charges except insurance. The insurance sometimes comes to 6s. per cent. That is the lowest rate that I know of. The rates for ordinary merchandise vary from £1 to 25s. a ton. For wool the Commissioners charge the same rate from Bourke as from Girilambone. If a railway were constructed to Brewarrina I think that a few more hundred tons of wool would come in from the north. The 10,000 tons to which I have just referred would go by train if the railway were here, and there would be a little more. Charging the present rates, the revenue derived from the carriage of that wool would be about £10,000 a year. I do not think that a steamer company could afford to carry anything between Brewarrina and Bourke for less than 10s. a ton, even if the river were locked. Wool and merchandise come in here from the north, north-west, and north-east. There are only about 300 tons of intermediate traffic between here and Bourke. I think that the present fleet of boats would be sufficient, even if the river were permanently navigable. During the last four or five years we have averaged between 27,000 bales and 30,000 bales of wool between Brewarrina and Bourke; that would be from 5,000 to 6,000 tons. Then there would be about 4,000 tons of merchandise.

—? I would suggest that his principal be examined. I know what the statistics are.

297. You have some doubt as to the accuracy of the statistics? I am not going to say a word about it. I suggest that his principal should be examined.

298. *Mr. Hoskins.*] You said just now that the revenue at the Bourke railway station had diminished;—what have you lost? We have lost a lot of the Queensland trade.

299. When the Upper Darling River is navigable, do not nearly all the pastoral products from the Brewarrina district go down by the river to Bourke? Yes.

300. Does much go past Bourke down to South Australia? No.

301. In reply to Mr. Trickett, you said that the railway could not compete with water-carriage, as a rule;—would that apply to the Darling River if the Upper Darling were made navigable all the year round? I think that the position of the steamers trading there would be improved by that.

302. Do you think it would be just to the community if a series of locks were made on the Upper Darling, unless the persons taking advantage of the river navigation paid tonnage dues for the benefits they received? I certainly think they ought to do it.

303. Then, if tonnage dues were charged, would not that necessitate their increasing their charges for the conveyance of products by the river, and, consequently, neutralise your contention that river navigation is so much cheaper than railway carriage? It would modify my views; but I should expect to find very much improved methods of communication, and the regularity of their trips, I should imagine, would more than counterbalance any fair dues which might be imposed.

304. Suppose that £150,000 is spent in improving the navigation of the Darling between Bourke and Walgett, do you not think that a fair charge ought to be made? I certainly think so. The users of the railways have to pay the interest on the capital and the working expenses as well.

305. If the river is a formidable competitor, and we improve the navigation of the river, would not that tend to divert the traffic of New South Wales to other colonies? Not if that improvement were limited to the part of the river above Bourke. If it were extended down the river, no doubt the introduction of a better class of steamers would compel us to reduce our competitive rates still further. It would be a fight between the railways and the river.

306. I gather from what you told Mr. Trickett that you cannot see that there is any probability of any other development in that tract of country from pastoral pursuits? No; I cannot at present. It is a splendid district for grazing. I should like to be able to realise that it was capable of more intense cultivation. Perhaps it may be in the future.

WEDNESDAY, 6 OCTOBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN.)

The Hon. FREDERICK THOMAS HUMPHREY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

John Harper, Goods Superintendent, Department of Railways, sworn, and further examined:—

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307. *Chairman.*] A line from Gunnedah on the North-western railway, running in a westerly direction, would pass about 20 or 30 miles south of Coonamble, and would intersect the main Western railway somewhere about Coolabah; another line going south from Coonamble would run through Gulgong and Mudgee, and, if extended north, would strike the Barwon between Brewarrina and Walgett;—do you know the country which would be intersected by such lines? I know a good deal about it.

308. Are you prepared to express an opinion as to the advisability of constructing a railway from Mudgee to Gulgong, and on to Coonamble? No. I have already reported to the Committee upon the subject on an extension from Mudgee to Gulgong, but I am not prepared to express any opinion upon the question now.

309. Do you know the country from Coonamble to Coonabarabran? I have been over it.

310. Are you prepared to express an opinion with regard to it? I should prefer not to do so.

311. What is your opinion of the country between Warren and Coonamble? I think that an extension of the railway from Warren to Coonamble promises to be one of the best paying lines that could be constructed.

312. Do you know the country going from Coonamble north to the Barwon? I have been over it.

313. What do you think of it? I do not think so much of it as I think of the country between Warren and Coonamble.

314. Where, in your opinion, is the limit of the wheat-growing land between the North-western and the main Western railways? I should not like to say, because I saw it stated in to-day's newspaper that wheat had been grown at a place the other side of Bourke.

315. The growth of wheat depends upon the rainfall and the quality of the soil;—is the quality of the soil and the rainfall in the district between Coonamble and the Barwon, going north-west, suited to the growth of cereals? I do not know that we know yet what country is suited to the growth of cereals; but, from present knowledge, I should say that that country was not very suitable for the purpose.

316. Where would you place the limit? I would not like to place a limit. I cannot inform the Committee where the limit should be placed. A little while ago it was thought impracticable to grow wheat anywhere west of the Macquarie; but I am informed, upon very good authority, that this year 80,000 bags of wheat will be placed upon the railway at Naromine, and even as far as Nyngan the prospects of the crops are very favourable.

317. Naromine lies a good way south from Coonamble. The fact that wheat is grown there does not touch the question whether Coonamble may be regarded as an agricultural area? I did not look upon it in that light. I may say that they are able to grow wheat in the neighbourhood of Coonabarabran. There used to be a mill there. Coonabarabran is as far north as Coonamble.

318. You are not in a position to divide the country lying between the North-western and the Western railways into agricultural and pastoral areas? No; it has never been my business to do that.

319. If you got instructions could you do it? I would do anything I was told to do if I considered it reasonable.

320. How long would you take to do it? I do not know.

321. Can you tell the Committee how far west the influence of the North-western railway extends? It depends upon the conditions of the river.

322. If it were possible I would rather compare the influence of the North-western railway with that of the Western railway without taking into account the influence of the river conditions? You cannot dissociate them. As a matter of fact, the first supplies that reached Walgett not very long ago came up the river from Bourke, because of a rise of the river. We had hundreds of tons of stuff stored at Narrabri, but it could not be taken on to Walgett. I do not think you could alter that state of things very much.

323. Ought the North-western railway to control the country as far as Coonabarabran? Decidedly not.

324. In your opinion the Coonabarabran traffic ought to come on to the main Western line? Yes.

325. That is not very much further than 60 miles from Gunnedah? But the country is very difficult. The Coonabarabran traffic comes into Mudgee.

326. And it will never go east towards the North-western railway? I do not think it will.

327. Therefore, the influence of the North-western railway only extends to some point between Gunnedah and Coonabarabran? Yes.

328. How far east from Coonabarabran would that point be? I could not tell you off hand.

329. The whole of the country east from the main Western line, and west of Coonabarabran, will drain either to the main Western line directly or to the Mudgee line? I think so.

330. Can you tell us what it costs the Commissioners to take a ton of produce from Newcastle to Narrabri: I do not want to know the rate that you charge the public? I never knew any sensible railway man who was prepared to answer such a question. The Americans are the only people who attempt to answer questions of that character. The cost of carriage depends upon so many circumstances.

331. The cost of carrying a ton of goods on a railway depends upon the character of the line and upon the distance which the goods have to be hauled? It depends upon a number of things—upon the distance, the grade, the speed, and the load.

332. But the distance and the grade are the two dominating factors? I do not know. Speed is an important consideration, and there are considerations such as the capital cost of the line and the load. I do not think that any sane railway man ever attempts to ascertain exactly what is the cost per mile of hauling a ton of goods.

333.

333. Would it be cheaper to bring a ton of goods to Newcastle from a point 200 miles along the North-western line than to bring a ton of goods to Sydney from a point 200 miles along the main Western line? I should not like to say.

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334. In making railway extensions, it should be our object to send out the lines in such directions as will enable produce to be brought to a market in the cheapest way? If you confine yourself to the question of grades I can answer the question, because the grades are fixed. I should say that the grades are more favourable between Newcastle and a point 200 miles away on the Northern line for hauling towards Newcastle than they are between Sydney and a point 200 miles away on the Western line for hauling towards Sydney.

335. So that probably there is less expenditure of power in hauling towards Newcastle on the Northern line than in hauling towards Sydney on the Western line? No; there is always a certain waste of power. We do not get all the trains fully loaded.

336. Who could give us this information? I could not suggest anyone. It is admitted that it is absolutely impossible to ascertain the cost per ton of hauling goods over a given length of line.

337. *Mr. Trickett.*] When you were examined before the Committee in connection with the proposal to construct locks and weirs on the river Darling, you were asked (Question 269)—

If this scheme is carried out would the traffic of the Great Western railway be enlarged?

To which you replied—

I think it would. Traffic would come from Queensland which we do not get, and which we shall not get by the Moree station.

Does the same state of things prevail now? I do not think so.

338. Why? Because the Queensland railway authorities are now quoting very low rates for through carriage to Brisbane. This is in addition to the border duties.

339. Have the border duties been put on since you gave that evidence? No; they were in existence then.

340. Is it since then that the Queensland railway authorities have established competitive rates? No; they had competitive rates prior to that time.

341. Then what has happened to alter the circumstances? The Queensland railway authorities, in addition to having reduced their rates, are subsidising the teams to such an extent that we find that we cannot compete generally for Queensland wool.

342. They are actually subsidising teams to bring wool to their railways? Yes; they are quoting through rates from the stations to Brisbane.

343. Has that system been started since our railways have been pushed out towards their border? It has been started since our railways were extended to Bourke and Moree.

344. I suppose no such policy is adopted in this Colony? Not in New South Wales.

345. *Mr. Hoskins.*] The Queensland Government have extended their railway to Cunnamulla? I think they are gradually pushing their line on to Cunnamulla.

346. *Mr. Trickett.*] Do you know to what extent the Queensland Government subsidises the teams? I do not.

347. Does this policy take any wool from us? I do not know that it has had that effect since the line to Moree was opened. In the neighbourhood of Boggabilla they may have obtained a clip or two.

348. *Mr. Hoskins.*] If the Darling were locked between Bourke and Wilcannia, would that tend to send more wool and produce to the Bourke railway station? We practically get the whole of the traffic between Bourke and Wilcannia now. One or two clips in the neighbourhood of Wilcannia go to South Australia; but we get most of the traffic. Out towards the south-west corner of Queensland and the South Australian border the supplies are distributed from Wilcannia.

349. *Mr. Wright.*] You say that the Queensland Commissioners are subsidising teams for the carriage of wool;—have you any authority for making that statement? Nothing beyond my personal judgment.

350. Is it not a fact that the Queensland Commissioners have become contracting carriers? Yes.

351. And they make what arrangements they please with the teamsters? That amounts to the same thing.

352. It may or it may not;—as a matter of fact, the Railway Commissioners are doing the business done by forwarding agents in the adjacent colonies? Yes.

353. No one, except the railway officials, knows what proportion of the rates paid goes to the teamsters, and what proportion goes to the railway? No.

Francis William Bacon, grazier, sworn, and examined:—

354. *Chairman.*] What are you? I am a grazier, residing at Dumble, near Goodooga, 75 miles north of Brewarrina. I have lived there sixteen and a half years. This is the seventeenth shearing which I have conducted at the station.

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355. *Mr. Trickett.*] I suppose you are engaged in pastoral pursuits out there? Yes.

356. Where do you send your stock and wool? To the Western line *via* Brewarrina.

357. Through Brewarrina to Byrock? Either to Byrock or Bourke, according to the season.

358. I suppose you send it to Bourke when the river is up? During the last three years I have found it cheaper to send directly to Bourke or to Byrock by road, and not to use the river.

359. Can you give us the comparative rates of carriage? In 1895, it cost us £3 3s. a ton to send wool by road to either Bourke or Byrock. The carriers had the option of taking it to either place; but they mostly went to Bourke in order to get return loading. In 1896 it cost us £3 a ton to send our wool by road all the way, and this year it cost us £2 15s. a ton. I let a contract for the conveyance of 100 tons at £2 15s. a ton.

360. That is what it cost you to send the wool from the station to the railway? Yes. The rate of carriage to Brewarrina is, and has been, £2 a ton for wool, and the rate from there to Bourke by steamer 25s. a ton, making the combined road and river carriage to Bourke £3 5s. a ton, so that we have saved from 3s. to 10s. a ton by not using the river.

361. Would 25s. a ton cover all river charges, including insurance? No, not insurance. That is about 4s. per cent. more—about 2s. a ton more.

362. It has been stated by the Department that the river charge between Bourke and Brewarrina is often as low as 12s. 6d. a ton;—do you confirm that statement? Well, I have lived in the district seventeen years

- F. W. Bacon. years, and I have never paid less than 25s. a ton, while I have frequently paid from 30s. to £2 a ton for up-loading. I am prepared to swear that, and I can produce documents in support of my statement.
- 6 Oct., 1897. 363. You have never had your goods carried for 12s. 6d. a ton? Never.
364. I suppose you look upon Brewarrina as the centre through which all the trade of the district goes? Yes.
365. Do you send to Sydney, or to Newcastle? Always to Sydney.
366. If a railway were constructed from Byrock to Brewarrina would you always use it? Yes.
367. Even if it were cheaper to use the river? Yes; I would sooner pay 10s. a ton extra to use the railway.
368. Why? There is always great risk in sending by river, and great delay. The conduct of the river business is most unsatisfactory. Your wool is tumbled out and put under tarpaulins; but it frequently gets wet. Sometimes a stock of 1,000 or 2,000 bales accumulates, and your wool is sent away in detachments, so that sometimes you have to wait two months before you can offer it at auction. Now-a-days wool has to be classed very carefully, and you cannot offer five bales of ewe combings and a bale of wether combings. This delay is very unsatisfactory. I would sooner pay more to have the wool taken right through. The river people, however, have kept the rates up, so that for three seasons running the teamsters have been able to compete with them.
369. Mr. Shainwald, the manager for Messrs. Rich & Co., at Bourke, stated that with a permanent river 10s. a ton would be a fair charge for conveying goods from Bourke to Brewarrina? I have seen it stated that the river has practically been permanent for seven years; but they have never charged less than 25s. a ton. I should be sorry to have to send the wool by river.
370. If the river rate were only 10s. would you still prefer to send by train? Yes.
371. What about the live stock traffic? Our crying want is that we are not able to get rid of fat stock. We have been obliged to give up fattening stock and to content ourselves with breeding and selling.
372. If the river were permanently navigable, it would not offer any facilities for the transit of live stock? No. I heard it stated that a firm proposed to put boats upon the river to carry sheep; but I would never send the sheep by boat. I would sooner travel them to Mudgee or to Coonamble.
373. Brewarrina is the centre of a very large and rich district? Yes, probably one of the richest districts in the Colony. The Land Board thinks that it is, because it has assessed us at the highest rents in the Colony.
374. If the railway were taken to Brewarrina the export of live stock would increase very much? Yes. There are a number of small holdings in the district, holdings of from 10,000 to 30,000 acres, which are well-suited to the breeding of crossbred lambs for export. They comprise very rich fattening country.
375. Mr. Harper said yesterday that stock-owners always dodged the railway when the opportunity occurred;—is that your experience? No. My experience is that the sooner you get your stock on to the railway the better. I have sent stock from both Bourke and Byrock. The roads to both places are very bad. Sometimes we have been compelled to go to Narrabri or to Dubbo when the season was better in those directions.
376. Can you, as a practical grazier, refute the statement that it would be better to drive stock, and thus save carriage, than to truck at once at the nearest railway station? My experience is that if you drive stock far you drive all the fat off them.
377. Do you think that it is the practice of graziers to do that? No; it is the practice of graziers to use the railway as much as they can for the conveyance of fat stock.
378. If a man is sending his stock to market the less he drives it and the sooner he gets it into the train the better? Yes. The travelling-stock routes have become practically impassable during the last few years.
379. *Chairman.*] It would be as reasonable to imagine that a grazier at Brewarrina, if there were a railway there, would drive his stock to be trucked at Bourke as to imagine that a grazier at Bourke would drive his stock to be trucked at Byrock? Yes; or from Nyngan to Dubbo, or any similar distance.
380. *Mr. Trickett.*] Looking at the map, it would seem that Walgett and Brewarrina are about equidistant from Goodooga? It is about 15 to 20 miles further to Walgett than to Brewarrina.
381. Would it suit you as well to send stock to Walgett as to send it to Brewarrina? Not quite as well. The road is not quite as good.
382. In what way is it not quite as good? You have to go 15-mile stages without water. You have to water at the Government tanks. Going to Brewarrina you follow the river, and you have nice open country all the way.
383. *Mr. Clarke.*] Does any of the Queensland wool go through Brewarrina? It does now. One of my places is in Queensland; but the sheep are shorn at Dumble. I have about 40,000 sheep over the border. Wool is sent to Brewarrina too, from Curriwillingham, from Brenda, an estate belonging to the Bishop of Newcastle, and from Kinglebilla. There has lately been a good deal of settlement in Queensland, just across the border, by New South Wales people. The Carter family, from Goodooga, have taken up 50,000 acres in Queensland, and the Murphys have taken up a large area there. These, being New South Wales people, prefer to deal with this Colony.
384. Does any of the Queensland wool go to Bourke? This wool goes to Bourke just as mine does. Bourke is the terminus of the railway, and the carriers like to go there in order to get back-loading. There is a truck-rate to Bourke.
385. The people about Brewarrina and out in the district from which you come would prefer to use the railway, if it were extended to Brewarrina, to using the river? They will not use the river if they can help it. They want a railway, and nothing else will suit them. To make the river navigable would cost as much as to construct a railway, and we are entitled to railway communication in common with the rest of the Colony. The river can be of no service to us. I have shown you that I prefer to send my wool by road, and to get stuff back by road. That proves that the river is of no use to me.
386. Do you consider that it is unjust to the people in that neighbourhood to compel them to go to Bourke? Yes.
387. I suppose this is all purely grazing country? I am inclined to think that it is more than that. I saw the sample of wheat referred to by Mr. Harper in Mr. Grainger Barton's hands. I have grown wheat at Dumble for seven years past. I only cut it for hay; but on several occasions the heads have been quite full, and as good as I have seen anywhere else. We have a rainfall of 19 inches, and I am sure that a great deal of the red ground would grow wheat.

388. Does the rainfall generally come in the proper time of the year for cereals? No; most of the rainfall is in the summer-time; but I have grown fair crops in five years out of seven. F. W. Bacon.
389. I suppose the country is somewhat similar to that between Moree and Narrabri? Somewhat similar. 6 Oct., 1897.
390. It has a good rainfall, but the rain does not come at the right season to suit cereals? Yes; there is a great want of knowledge of agriculture amongst our people; but I think that with other crops, and with proper cultivation, there is great room for expansion.
391. Is it probable that that country will be able to support a large population? Undoubtedly. It is some of the best grazing land in the Colony. It is similar to the Murrumbidgee and the Deniliquin country.
392. Is it red-soil or black-soil country? Both. There are patches of red-soil, but most of it is black-soil country. It is very rich grazing-land.
393. In the event of the proposed line from Byrock to Brewarrina being built, will not the carriage of wool and other produce cost you much less than it does now? It will cost us less.
394. The rate from Sydney to Brewarrina would be the same as the rate from Sydney to Bourke? I do not think so. I think we should have to pay more, and we should be quite willing to do so. We could not expect the Government to make 50 or 60 miles of railway and not get any return. We are quite prepared to pay a branch-line rate.
395. *Chairman.*] What you would save, would be the difference between the extra charge from Byrock to Brewarrina, and the £1 5s. you pay now to get from Brewarrina to Bourke? Yes; the present rate from Brewarrina to Bourke being £1 5s., we should be prepared to pay a rate of 10s. or 12s. 6d. upon the proposed railway. That would save us one-half.
396. *Mr. Clarke.*] What about the passenger traffic? I think there would be a large passenger traffic. There are two sets of coaches every day, and they are always well filled. The conditions of labour which prevail now are very different from those which formerly prevailed. Formerly, the men lived in the country all the year round; but now we have to import a great deal of our labour. Every year we have to send to town for a large number of men to do all kinds of work. In the old days there was more work to be done, and the people stayed about. Now we have to get up men from town, and we have to pay their fares.
397. That would give traffic to the railway? Yes; I know that the coaches have a very profitable time during the shearing season. In my evidence before the Land Board here, I was able to say that what I paid in conveying labour to the station amounted to ¼d. an acre or rather more upon my rent.
398. In the event of the proposed line being constructed, would you use it for sending away cattle and sheep? Most certainly. Two travelling-stock routes are shown on the map as existing between Brewarrina and Byrock; but of these only one is used. There is no water along the direct stock route, and it is never used by people except those living along it. The route from Byrock to Gongolgon is very scrubby, and there is only one tank on it.
399. In wet weather the country is difficult to get through? Yes; very difficult. In wet weather, one part of the road between Gongolgon and Brewarrina is almost impassable.
400. *Mr. Roberts.*] Your homestead is about 75 miles north from Brewarrina; how far is that from the Queensland border? About 10 miles.
401. Have you ever sent your wool to Brisbane? No.
402. Have any overtures been made to you to get you to send it to Brisbane at a lower rate than you have to pay to Sydney? We got a circular from the Queensland Commissioners once or twice; but no inducement was offered to us to send it to Brisbane.
403. You can send to Sydney at a lower price? At as low a price. We should not think of going to Brisbane, because we should have no market there. Two stations which formerly sent to Bourke have been diverted to Brisbane; they are Woolereina and Coomburrah. They are 40 miles above us, and would send to Brewarrina if the railway went there.
404. Their wool still goes to Brisbane? It has gone to Brisbane this year.
405. I think you said, in answer to Mr. Clarke, that Queensland wool frequently comes to Brewarrina? Yes.
406. Is there not an export duty upon wool in Queensland? Yes; but I understand that this duty is always rebated to people who send to Sydney. It is an open secret that any Queensland man who sends wool to Sydney will get a rebate equal to the amount of the duty.
407. Is that allowed by the Railway Commissioners? I only know what I have heard. I shear my sheep in New South Wales to avoid the duty, so that I cannot speak of this rebate from my own experience; but I have always understood that the rebate is allowed.
408. What is the amount of the duty? I think it is £2 a ton. I may say that I have not heard anything about the subsidising of teams, though I am in constant communication with people across the border. The only clips which have been diverted are those from the stations I have mentioned.
409. What advantage do you think the Colony will get from the construction of the proposed line; are you able to show that it will cause more wool or a larger quantity of goods to be sent over the main Western line? It would assist to increase and develop the existing trade, and I believe it would bring a great deal of fresh traffic from Queensland.
410. Notwithstanding the export duty? Yes; Sydney is a better market than Brisbane for both wool and stock. The people across the border up towards St. George would prefer to send their stock and wool to Sydney. The freights are cheaper, and you have the best market in Australia. The Sydney wool sales are increasing in importance very much. It is only the other day that one of the banks which has until recently shipped all its wool ordered it to be sold in Sydney this season.
411. Is any advantage to be obtained by purchasing goods in Sydney; can goods be landed on the stations from Sydney more cheaply than from Brisbane? Yes, very much more cheaply. Sydney has the great advantage of being a free port, and things are very much cheaper here. The Queensland Government has lately extended its railway to Cunnamulla, and if its line is taken from Byrock to Brewarrina, and perhaps on to some point near the Queensland border, it will practically checkmate that move.
412. *Mr. Humphery.*] How far is Cunnamulla from Barringun? Eighty miles.
413. *Mr. Roberts.*] Do you think that the proposed railway, if constructed, would be able to compete with the river? I am certain of it. No one would use the river if there were a railway.

- F. W. Bacon. 414. Is that because of the frequent handling that the goods are subject to in travelling by river? Yes, and there is the knocking about and the extra insurance. Then, too, there is a lot of trouble at Bourke. The wool has to be lorried from the railway to the steamer there.
- 6 Oct., 1897. 415. But from Bourke it is carried to Sydney at the same price as from Byrock? Yes.
416. *Mr. Hoskins.*] Seeing that the proposed railway would intersect a purely pastoral country, would not the traffic during six months of the year be extremely dull? I think you are wrong in saying that this is a purely pastoral country. The first few miles of it is red-soil forest country—as good wheat-growing country as you have in the Colony. There is a good deal of land 9 miles out of Brewarrina of the same character. Cultivation is spreading there very rapidly. Every one is going in for it more or less. The wheat I saw this morning was grown 30 miles out of Bourke, at the back of Warraweena.
417. There has been no large settlement in the district of the people at whom the squatters look with so much horror—the Victorian selectors? Some Victorian graziers have come into the district; but I do not think the selector is looked upon with so much horror now. The squatter is the agriculturist. The place at Naromine from which Mr. Harper hopes to get so much wheat this year was started by Mr. Mack, an old Victorian, who has shown them the way to cultivate wheat in the district in a successful and profitable manner.
418. There can, however, be very little traffic in this district during six months of the year? Well, it will not be profitable to occupy it for close settlement without a railway.
419. Do you think there will be close settlement there? I think that all that country will be used for wheat growing between Byrock and the Bogan.
420. Is not natural water very scarce there? Yes; but any amount of water can be conserved. Tank-work can be done now for 5d. or 6d. a yard, when formerly it cost 1s. or 1s. 2d. a yard.
421. Has any artesian water been obtained in the district? Not between Byrock and Brewarrina; but north of Brewarrina there is a bore, at Goodooga.
422. The experience in this Colony is that a railway constructed through a sparsely populated district does not pay? Our railway system as a whole pays, and we shall have to follow the American plan of making railways to create traffic.
423. We are told that it is no use people going out there, because they cannot live? That is a great deal their own fault.
424. With respect to what we have heard about the subsidising of teams by Queensland, is it not a fact that the Queensland Government, in order to attract wool to Brisbane from the border stations, has been quoting through rates to consignees, so that there must be some agreement with the carriers to take the consignments direct from the producers? Yes.
425. The Queensland Government actually pays the carriers; but they quote the rates to the producers? I have heard something of it; but I do not know anything about it from personal experience.
426. Suppose the railway were made from Byrock to Brewarrina, do you not think that, from the necessity of retaining and attracting custom, the proprietors of the river steamers would cut their rates very low? They say that the present rates do not pay them, although now they get 25s. a ton. How, then, could it pay them if the rate were 7s. 6d. or 12s. 6d. a ton.
427. If the Darling were locked between Bourke and Brewarrina and between Brewarrina and Walgett, as some people think it ought to be, and the river was made permanent, do you not think that the steamer rates would be cut down? That is quite possible; but I should be prepared to pay more in order to send by the railway.
428. Do you think that you are now expressing the opinion of a large number of residents? Yes. The river would not take any live stock traffic. As far as passenger traffic is concerned, I would sooner go by the coach than by the steamer now. As to sending wool by steamer, I would sooner pay 3s. 6d. or 5s. a ton more and send it some other way.
429. When the river is navigable, how long does it take to go from Brewarrina to Bourke? I have been down three or four times, and it has taken from twenty-four to thirty-six hours.
430. How long are the mails in travelling from Byrock to Brewarrina? They leave Byrock at 4 o'clock in the afternoon, and get to Brewarrina at 7 o'clock next morning; but I have frequently driven over the road in my own buggy in eight or nine hours.
431. When wool is sent by boat it is knocked about a good deal, and the bales become very dirty, especially after rainy weather? Yes.
432. That destroys the appearance of the wool and depreciates it? Yes, very materially.
433. *Mr. Humphery.*] Do you know what quantity of wool and stores comes to Brewarrina? No.
434. I suppose you are aware that there is a very serious discrepancy in the evidence in regard to this matter? Yes.
435. Have you any opinion upon the subject? No, I have not. I have no statistics.
436. At the present time the railway earnings between Byrock and Bourke are nominal? Yes.
437. The rate of carriage is the same from Bourke to Sydney as from Byrock to Sydney? Yes.
438. The construction of the proposed line would be a substantial benefit to the Railway Commissioners, inasmuch as the persons using it would be prepared to pay a local rate? Yes.
439. Have you any information which would assist the Committee in estimating what the earnings of the proposed railway will be? No; I have nothing that I can lay before you.
440. *Mr. Hoskins.*] How many coaches run between Byrock and Brewarrina? There is a coach five times a week; and I think that on three days of the week there is an opposition coach.
441. *Mr. Humphery.*] Would the construction of a railway from Narrabri to Walgett appreciably affect the earnings of a railway from Brewarrina to Bourke? I do not think it would affect them at all.
442. You are aware that a large quantity of wool now finds its way from Walgett to Bourke? Yes; when the river is up. The steamship-owners make concessions to people. I understand that they take wool from Walgett or from Boorooma at the same rate that they take it from Brewarrina. They are fighting against the Northern railway. Mr. Harper stated that upon one occasion goods were brought to Walgett by steamer from Bourke more quickly than they could be taken from Narrabri. Of course, that occurred under exceptional circumstances. The teamsters' animals were not in a fit state to travel, and when rain came the carriers would not venture out with poor horses and boggy roads.
443. The river could be used when the roads were not passable? Yes, exactly.
444. You think that a railway to Walgett would not interfere with the traffic upon the proposed line? Not

Not to the extent of one clip. For some years before going into the station business I was a forwarding agent and a stock and station agent in Gunnedah and Narrabri. We had to deal with some of the clips about there, and I have an intimate knowledge of the way in which the wool has gone. There is a well-marked line between the district which sends to the Western railway and the district which sends to the North-western railway. The station adjoining us sends to Narrabri; while west, commencing with our own place, the wool all goes in a different direction. I do not think that a railway to Walgett and another to Brewarrina would alter the trend of traffic a bit.

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445. Would not the distance from Walgett to Newcastle be shorter than the distance from Walgett to Sydney? Yes; but most people now prefer to sell their clips in Sydney. They do not use Newcastle so much. The wool goes right through by train.

446. Is not much of the wool brought from Newcastle by steamer? A certain proportion of it is; but that is a matter I could not speak definitely about. No doubt the Newcastle steamers have tried to attract the traffic by cutting down the rates.

447. Is it not a fact that it is merely a question as to the cost of moving the wool from the station to the market, and that if you could come by the North-western line more cheaply than by the Western line, you would come by the North-western line? Yes; but of course local conditions must guide one to a very great extent. These conditions are affected by the state of the seasons—the trend of traffic. We never get any Narrabri carriers at Dumble. We get our goods through Bourke, and consequently our carriers come from Bourke.

448. If the railway were brought to Walgett, what change would that make? It would depend upon the through rate from Walgett to Sydney as compared with that from Brewarrina to Sydney.

449. With the river navigable between Brewarrina and Walgett, do you think the earnings of the Brewarrina line would be affected owing to the shorter distance from Walgett to Newcastle? I do not think so. As a rule the wool is not taken up the river against the current. It is usually taken down stream. To make the river permanently navigable between Bourke and Walgett would require an expenditure of probably £750,000.

450. But assuming the river to be navigable between Brewarrina and Walgett? That would feed the railway.

451. At Walgett? No, at Brewarrina. Wool rarely goes up stream.

452. You are of opinion that the earnings of the proposed railway would not be diminished by the construction of a line from Narrabri to Walgett? That is so.

453. *Mr. Wright.*] Can you give the Committee any idea as to the number of bales of wool coming in to Brewarrina? No.

454. If it has been stated that about 15,000 bales are annually received there, do you think the statement a correct one? I think that more wool than that is sent there. At all events quite that quantity of wool is sent.

455. Do you think that 20,000 bales of wool are sent annually to Brewarrina? I think that that is more likely to be the number of bales sent.

456. Brewarrina is a very large stock depôt? Yes. It has this peculiar advantage, as compared with Bourke, that it has good stock routes leading to it. The stock routes going to Brewarrina pass through good open plain country. There are three stock routes leading into Bourke, one from Wanaaring, one from Barringun, and one from Hungerford. These routes go through some of the worst country in the Colony. I lately had a painful experience in travelling sheep out there in what was called a good season, and I suffered a heavy loss. Those roads are so bad, that a large number of Queensland cattle avoid them. On the other hand, I do not know a better road in the colony than that from Goodooga to Brewarrina.

457. That is the great stock route for cattle coming from Queensland? Yes.

458. Are many fat sheep sent to market from that district? A great many, especially to the Sydney market. Quantambone station sold 28,000 sheep to the Messrs. Richards, the great carcase butchers, quite lately.

459. What effect would a railway to Walgett have upon the quantity of wool received at Brewarrina or Bourke; certain clips always come to Bourke when there is a river? Yes; Gingie and Boorooma always do.

460. And Euroka? That sometimes goes the other way.

461. These clips would represent between 5,000 and 6,000 bales? Yes.

462. If there were railway communication to Walgett, that wool would be lost to Bourke and to Brewarrina? Not altogether. I think that the Boorooma wool—about 2,500 or 3,000 bales—would come down the river to Brewarrina in any case.

463. If there were no river it would go the other way? Then it would go by road.

464. You think that, under any circumstances, if there were a railway to Brewarrina, it would go there instead of to Walgett? Yes.

465. So that the extension of the railway to Walgett would not affect the Brewarrina trade to any appreciable extent? No.

466. I think you said that the extension of the railway from Byrock to Brewarrina would attract a large amount of traffic from the southern parts of Queensland? Yes.

467. I suppose you are aware that the New South Wales Railway Commissioners fight the Queensland Railway Commissioners by giving special rebates for wool coming from Queensland into New South Wales? I understand that the amount of the duty is paid back to people who send their wool into New South Wales.

468. At Bourke the Commissioners give them back the whole amount of the duty by reducing the railway charges to that extent? Yes.

469. The competition of Queensland is neutralised by this action of our Commissioners? Yes.

470. For this reason you think that an extension of the railway to Brewarrina would attract trade from Queensland? Yes, coupled with the fact that a large number of New South Wales people have settled in Queensland.

471. A lot of the wool from that part of Queensland comes into New South Wales now? Yes.

472. What about the Cubbie wool? That wool now goes towards Narrabri; but if the proposed railway were made, it would come to Brewarrina.

473. There are about 5,000 bales of wool sent from the stations formerly held by Mr. C. B. Fisher? I think 8,000 or 10,000 bales. Some of that wool we should never get.

474.

- F. W. Bacon. 474. I suppose that wool would come to Brewarrina from all the country round about St. George? Yes.
- 6 Oct., 1897. 475. The people in that part of Queensland would naturally get their supplies from New South Wales? Yes.
476. Except for passengers and live stock, the New South Wales railway rates for long distances are much less than the Queensland rates? Yes.
477. So that there would be a natural tendency for storekeepers and pastoralists near the border to trade with New South Wales through Brewarrina? Yes.
478. Would you, as a pastoralist, be prepared to pay from 15s. to 17s. 6d. a ton as a local rate between Brewarrina and Bourke? I would be prepared to pay an extra local rate. According to the *Daily Telegraph* report of Mr. Harper's evidence, he has told the Committee that if the interests of the carrying companies at Bourke are disturbed they may take the trade away to South Australia. I cannot understand why he should make such a statement. People are not in the hands of the large carrying companies. There are only two carrying companies in Bourke, and I am sure that they would not be able to induce people to send their wool to Adelaide.
479. There are three carrying firms in Bourke? Well, I am pretty sure that they could offer no inducements to people to send to Adelaide, unless they were prepared to throw their money away in a suicidal competition. I do not think the people would send their wool to Adelaide down that long stretch of river, even if extremely low rates were quoted, because the risks are so great and the insurance is very high. I understand that at the present time a reduction is made to people a certain distance down the Darling to induce them to send their wool back to Bourke, and I think that the Commissioners' policy would prevail against any attempt of the forwarding agents to send the wool to Adelaide. I am surprised that Mr. Harper should make such a confession of weakness.

William Chandos Wall, sworn, and examined:—

- W. C. Wall. 480. *Chairman.*] Will you make a statement upon this matter? Yes; I think it will expedite business if I do so. I at one time resided in Brewarrina for four or five years, and I have a thorough knowledge of the district and its resources. As the Committee are well aware, I have been concerned in investigations into the advisability of constructing several similar lines, and I can say that, in my opinion, no line is likely to be more remunerative, or would settle more population upon the soil, than the line now under your consideration. I will very briefly state the reasons which have led me to that conclusion. The country referred to by Mr. Bacon comprises the overflow of the Balune. Goodooga, and the country lying to the north-east of Brewarrina, is actually the best pastoral land in New South Wales. Not only has it the advantage of the natural rainfall, but it is naturally irrigated by the overflow of the Balune. I do not know of any country which is better situated in this respect. The Balune at times runs a mile or two wide, and a foot deep, and irrigates the whole country. Reference has been made to the agricultural capabilities of this district. I was present with Mr. Sawers at the Brewarrina Show some years ago when a cabbage was exhibited weighing 14 lb. That cabbage was grown in the district. I might also mention that when I was managing a run near Goodooga, the gardener on the adjoining run cultivated some corn which grew 9 feet high, and which was cut down by the manager because he feared a raid of selectors. Remarks have been made in regard to the decrease in the number of homestead leases held in this district. It is true that the number has decreased; but that is because the land is of such value that it has been purchased by the pastoralists, and in many cases the leases were taken up by them. I was retained at a sitting of the Land Court in connection with a certain large holding for which twenty-three homestead leases had been taken up. The whole of the resumed areas were taken up in the interests of the pastoralists, and they are falling back now that the conditions have been fulfilled. In other cases the lessees have been bought out. Anyone who has any knowledge of that country must know that no part of the Colony can surpass it in its prospects of agricultural development. I have seen 40 bushels of wheat to the acre grown at Wommerall, about 40 miles from Brewarrina in a south-easterly direction. The whole of that country on to Brewarrina and thence on to Byrock is good agricultural country. Wommerall is close to the junction of the Castlereagh and the Macquarie. There is a special reason why the proposed line should be constructed. At Brewarrina there is what they call a bar. The river is often navigable to Brewarrina, when it is not navigable past Brewarrina. Many years ago, before the railway was taken to Bourke, boats used to be sent up the Darling from Adelaide with supplies, and used to take the whole of the wool back. Only the other day when I was in Bourke, I found that a very large mercantile firm there—Messrs. Rich and Company—were getting goods up from Adelaide, and were guaranteeing a load of wool back. Every station is a wharf from the time you leave Bourke until you get to Walgett, and when the wool is put on to the boat, it seldom leaves until it gets down near Adelaide, so that our railways are deprived of freight which would otherwise come to them. The Bourke line has for years been robbed of its legitimate traffic by the arrangement made by merchants in Bourke to have goods brought up by the Adelaide steamers. It is a customary thing when there is a fresh in the river for these steamers to come up with barges and to open a store on board. I have seen them selling retail from the barges for month after month. The proposed extension to Brewarrina would, if it were made, take the whole of the wool from Goodooga, from the overflow of the Balune, and from the rich Narran country. I was there during the drought, and I know that from one station 222 head of stock were sent away every fortnight. These cattle would have taken the railway at Brewarrina if it had been made. Most of them went to Victoria. There is no doubt that it would be impossible to obtain the trade from the Queensland border without tapping the river somewhere between Bourke and Walgett. If the Queensland railway is extended south from Cunnamulla to the border at Barrington, or some other point, it must take the whole of the wool grown in the rich pastoral districts to which I have referred. That wool now comes down to Bourke; but immediately the Queensland line is extended it will be keenly competed for. When I was out there the competition was so keen that they were running their mails on alternate days, in order to compel you to go through Queensland. They so arranged their coaches that if you wanted to come back to New South Wales you had a delay of a day. As soon as the Queensland railway reaches the border they will get the traffic from Goodooga, from the Balune, and from the Narran. When I was there they had about 100,000 sheep on the land. There is also Mr. Sawyer's place, at Bundabooka, and other stations round there from which we ought to get the traffic. All the country there is rich fattening country; but it would be easy for them to go to Queensland if the Queensland railway were brought down to Barrington. I cannot see why our
Commissioners

Commissioners should be opposed to the construction of the proposed line. If they knew the character of the country it would serve, and the trend of the trade, they would look upon the line as indispensable to preserve traffic which must otherwise go to Queensland. I am not speaking from a casual knowledge of the district. I lived in it for many years, and I have had an opportunity of inquiring into the why and the wherefore of the construction of other lines. In my opinion it is essential that this line should be made to preserve to this Colony the trade of a very rich district. I know of no more convenient point than Brewarrina at which to tap that trade. The river is nearly always navigable between Brewarrina and Walgett, and between Brewarrina and Bourke. The "Jolly Miller" was once stuck in the mud for twelve months; but there is a little steamer plying between Brewarrina and Walgett which would bring the whole of the traffic from Walgett. Then there will be the traffic coming from Goodooga. I have seen the time on Moorabinda run when you could mow 20 or 30 miles of wild oats, which makes as good hay as any you can grow. As I have said, the Balune overflows and inundates this country for miles. Very often, when there is no local rain, it overflows and spreads over the country for 2 or 3 miles, and you then see the plains covered with vegetation such as I do not think you will see in any other part of the Colony. If the Committee visit the district, I think they will have the same impression of its value that I have.

W. C. Wall.
6 Oct., 1897

THURSDAY, 7 OCTOBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

Peter Collinson Close (Hill, Clark, & Company), sworn, and examined:—

481. *Chairman.*] You know the country under consideration? Yes.

482. *Mr. Clarke.*] Will you give the Committee your views in regard to the construction of the proposed railway from Byrock to Brewarrina? I may say that I have come practically unprepared, because I was taken by surprise. I only got word this morning that I was expected to come, and I am very busy just now. I think it would be advisable to construct the proposed line. The district which it would serve is a very good and a very rich one. The small men living there at the present time are under a great disadvantage, because they cannot get rid of their stock. A man may have 100 or 200 sheep or ten or twelve head of cattle or horses which he wishes to send away; but he cannot afford to send them away in such small numbers when there is no railway. These men are also at a great disadvantage in regard to their wool. If there were a railway to Brewarrina they could put the wool on board the train there, and it would come straight down to Sydney without any further delay or trouble. This would mean a saving of freight and of insurance. The rates of insurance for wool sent by river are very high, and all these things add to the expense of sending in produce. A good number of selections have been taken up on the other side of the Queensland border, out towards Thurulgoona. That wool can come to Brewarrina more easily than to any other place, and if there were a railway at Brewarrina there would be a considerable saving in carriage.

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483. Cannot the people living near Brewarrina and out towards Walgett come down to Bourke now? Yes; but if a man has only a few head of stock it is not worth his while to drive them all the way to Bourke. It is the small men—the men with 10,240-acre leases—who would benefit most by the construction of the proposed railway.

484. What about the larger men? They will use the railway too. Instead of driving to Bourke or to Byrock, they will take advantage of the train at Brewarrina. They will not drive their stock further than the can help, especially in dry times.

485. If the Darling were locked, would that give them any extra facility? Not for getting down stock. It would be right enough for wool.

486. Are you aware that it is estimated that the loss upon the proposed railway will be something over £4,200 a year? I do not know how that estimate is made up; but it is probable that credit has not been taken for the produce of a great many stations. For instance, there are the stations on the Neibine. Cattle go from those stations to Bourke and to Dubbo; but if there were a railway they would go to Brewarrina in preference.

487. Do you think it possible that in course of time the probable loss will be reduced? I should think so. The country is all wonderfully good.

488. I suppose it is purely pastoral country? Yes; it is grazing country. At the same time you could not find better agricultural country. Every one who has tried agriculture there has succeeded admirably.

489. Is it likely to become an agricultural district? I should say that there is no doubt of it. It is only a matter of time.

490. At the present time there is no agriculture there? There is some, but very little. On the Tarrion they have even gone in for irrigation. So far all their experiments have been successful.

491. Does much of the Queensland wool come to the New South Wales railways? They are forcing it to go to Brisbane as much as they can by imposing a duty prohibiting export into this Colony. They are also offering great concessions on the railways. The men who are taking up 20,000-acre leases, however, will send a great deal of their wool to the New South Wales railways, because they are right on the border.

492. Do not our Commissioners make concessions to attract the trade this way? Yes.

493. Do you know the nature of those concessions? I could not tell you from memory what they are; but they are very reasonable and fair.

494. There appears to be a regular cut-throat competition? Yes. The New South Wales railways are at a disadvantage, because they have to fight against the Queensland export duty as well as the Queensland railway concessions.

495.

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495. Do you think that it is an injustice to the people of Brewarrina and of the country to the north of it to compel them to go to Bourke? I do not think that they should be compelled to go to Bourke. I think that they ought to have a railway to Brewarrina to tap all the surrounding country.
496. The fact still remains that there would be a heavy annual loss upon such a line? Well, I cannot go into that question. I presume that it is a matter for the railway authorities to deal with. Not knowing how their calculations are made up, it is impossible for me to offer an opinion upon them. I believe that the traffic of the district is very large and very extensive.
497. In the event of the proposed line being constructed, the carriage of produce of all kinds would cost less than it does now? Yes.
498. That would be a benefit to the whole district? Yes.
499. The live stock of the district is at present sent to either Bourke or Byrock? Yes.
500. If the proposed railway were constructed it would be more economical to truck stock at Brewarrina? It would be most advantageous to stock-owners to truck there.
501. Do you think that the country would carry more if there were a railway to Brewarrina? There is no question about it. It is a great fattening district, and people would be able to send stock to market who have now no opportunity to do so.
502. What would cause the population to increase? I think that a lot of the larger holdings would be cut up into smaller holdings.
503. Would that cause more cattle and sheep to be kept? Yes. A man holding 10,000 acres runs more sheep to the acre than a man holding 100,000 acres.
504. Why? The paddocks are smaller, and the sheep can be better looked after in them. All the work of these small places is practically done by the family of the lessee.
505. Do you think it is possible that wheat or hay or oats will be grown in the district? There is no question about it. It will be a wonderfully good agricultural district when it is opened up. We have lent money on places out there, and they all say that they would prefer to send their produce away by train instead of by steamer.
506. Is there much passenger traffic between Brewarrina and Byrock? A good deal.
507. I suppose that if there were a railway there would be more? A great deal more.
508. *Mr. Lee.*] Are there many homestead lessees in the district? A great many.
509. How many? I could not tell you.
510. What is the area of their holdings? 10,240 acres.
511. You could not settle very many people in the district if all the holdings were of that size? Well, you would carry a great many more sheep.
512. Have you reason to doubt the correctness of the estimate of traffic given by the railway officials? I do not know what it is; but I am surprised that they should estimate that the loss would be so large. I cannot dispute the calculations of professional men, who ought to know their business; but it is a surprise to me that there should be a loss.
513. It has been estimated that the proposed railway, if constructed, would carry 3,100 tons of wool; allowing $5\frac{1}{4}$ bales to the ton, that would be about 16,300 bales;—do you consider that an under-estimate or an over-estimate? I think it an under-estimate. All the big properties there yield very heavily, and I should say that with a railway the yield would be increased.
514. Of course, a certain proportion would continue to go to Bourke. The calculation of the Commissioners only takes in the wool which it is believed will go on to the proposed line? Another thing to consider is the possibility of the construction of a railway to Walgett. That would take some of the wool away. I think, however, that there should be enough wool for the proposed railway in the Brewarrina district alone.
515. How many sheep would be required to produce 16,300 bales of wool? Of course, flocks differ; but I should reckon that there are generally about 7 lb. of wool to the sheep.
516. That is a fair average? Yes.
517. *Mr. Humphery.*] From eighty to 100 fleeces go to the bale? Yes.
518. *Mr. Lee.*] The Commissioners estimate that 1,000 trucks of sheep and cattle would be sent over the proposed railway;—how many sheep go to a truck? About eighty woolly sheep go to a truck, and between ninety and 100 shorn sheep.
519. Taking the truck load as eighty, the Commissioners estimate a transport of 80,000 sheep;—would that be an abnormally large transport from that district? No; I look upon that as a small estimate. There is some of the finest fattening country in Australia in this district.
520. It is essentially a pastoral district? Yes, and a very good pastoral district.
521. I presume that there are few pastoral districts which move more stock during the year than that district moves? Very few.
522. Taking into consideration the sale of store stock, and the consumption by the metropolis, the movements of stock in that district must be very large? Yes.
523. 80,000 a year is not a very large estimate? No; I do not think there is any comparison between this and the Bourke district, so far as fat stock is concerned.
524. Has there been an increase in the number of stock or in the quantity of wool sent from the district during the last few years? I think there has been a decided increase in the number of stock. This year, of course there has been a severe drought nearly everywhere.
525. Does the district continue to hold its own in supplying fat stock to the metropolitan markets? Most certainly. Ben Richards buys extensively in the district, both for export and for Sydney consumption.
526. Would the construction of this railway bring a larger quantity of stock to market by enabling those who have small lots to send them? Yes; it would induce people to send in more stock. When you are travelling sheep, although they may start in fair condition, after they have been a fortnight on the roads they have lost a great deal. If you could put them into the trucks after a journey of 20 or 30 miles, there would not be that loss. It makes a great difference to the condition of stock when you have to travel them along a hard, dusty road. When stock begin to waste they go right away.
527. Would the waste be equal to the cost of transit? It would be more.
528. The cost of transit would be 15s. 6d. a truck—4d. a sheep;—would the depreciation be equal to that? I think so. Sheep get knocked about terribly in travelling along these bad roads.

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529. You firm are very largely interested in the western district? Yes.
530. Is the country still held in large pastoral holdings, or is there a tendency to cut it up into smaller holdings? I could not tell you. Of course, everyone who has a big piece of land likes to keep it. We are interested in the small men, not in the large holders. The men in whom we are interested are selectors and homestead lessees.
531. Can you give us any evidence to prove that the official estimate of the traffic is a wrong one, or can you show us how any immediate loss will be met in the future? I cannot understand that there should be any loss. I have been all over that country. There are certainly no engineering difficulties there. The line would not be like the Mudgee line, which is a constant drag upon the Colony. I think the traffic from the district must be very heavy, and, if you increase the number of holders there, you will increase its production. Small holders are always sending in something to market. If they are near a railway, and have 200 or 300 head of sheep, or a few head of cattle to send away, they send them.
532. Is it your experience that small settlement has been a success in that district? Yes, a great success. All the men we have had anything to do with have started in debt, but very many of them have paid off their debt, and have done well. A great many of them who were quite poor when they started are now able to manage their properties without any assistance.
533. *Mr. Wright.*] Did you ever live in Brewarrina? No.
534. When were you in the district last? About six years ago.
535. You have been there sufficiently often to know it? Yes; I know the district all through.
536. I suppose that you are a fair judge of the quality of country, and of its carrying capacity? A fairly good judge.
537. You could form a reliable estimate of its capabilities? Yes; I should reckon this country as capable of carrying a sheep to 2 or 3 acres.
538. You know good agricultural land? Yes.
539. You assert that this district is a very rich pastoral district, and that it might be suitable for growing cereals? Yes.
540. Have you any knowledge of the number of homestead lessees in the Western district now? I know that there are a great many; but I could not tell you how many.
541. If it is asserted that they are decreasing, and are being bought out by the large proprietors—do you agree with the assertion? I cannot speak on that subject. I know that in many instances men with 640 acres conditional purchase and conditional lease have sold to larger holders, and have gone to Queensland to take up areas of 20,000 acres.
542. I am speaking of homestead lessees? I cannot tell you.
543. To your knowledge, is it a fact that the number of homestead lessees in the Western district is decreasing, and that the pastoral holdings are increasing in size? I have not heard.
544. According to the Departmental estimate, 1,000 trucks of stock, or between 70,000 and 90,000 sheep would be sent from Brewarrina;—do you think that that is half the number of sheep which would pass over the proposed line? I think that a great many more would pass over it.
545. More than double the number? I think fully twice the number.
546. A great many cattle would also be sent over it? Yes.
547. So that probably 3,000 trucks would be required instead of 1,000? Yes. When Ben Richards goes out there, he will sometimes buy 20,000 or 30,000 sheep at one deal.
548. I take it then that you think that the figures placed before the Committee are not reliable? I could not say that. I do not know what they are.
549. Well, for instance, it is estimated that 1,000 trucks a year will be required;—You say that 3,000 are likely to be required? Yes.
550. You feel sure of that? Yes.
551. Taking into consideration the fact that in a good season a great many stock may be sent by road? Yes, though people are not very fond of sending their stock by road even where the roads are good. When a man gets to Narrabri with a lot of stock, and finds that there has been some mistake about his trucks, he is not very pleased at having to travel all the way down to Gunnedah to truck. He likes to get his stock away by the railway as soon as he can. In travelling the sheep get full of burrs, and they lose condition. Everything is against them.
552. The stock routes of this Colony are fairly eaten down, and the stock deteriorate appreciably in every 20 or 30 miles? They deteriorate every mile. The roads are covered with burrs and rubbish.
553. That does not affect shorn sheep? It affects all sheep. They do not like them.
554. The tendency is to truck stock as soon as possible? Yes.
555. Do you consider the Departmental estimate of the live-stock traffic a fair one, notwithstanding that in good seasons some of the stock may be driven along the road? No; I do not. Even though some stock may be driven along the road, there would be a great many more stock sent by rail.
556. Then you think the estimate a small one? Yes; a very small one.
557. If the Committee has heard from one source that the ordinary merchandise traffic would be about 2,000 tons per annum, and from another that it would be 8,000 or 10,000 tons per annum, to which estimate do you attach the greater importance? I think it would be a great deal more than 2,000 tons per annum.
558. Do you think 2,000 tons per annum an under-estimate? Yes.
559. Do you think 8,000 or 10,000 tons per annum an over-estimate? Of course there is a great difference between the two amounts.
560. I suppose we might say 4,000 or 5,000 tons? Yes, easily.
561. If it has been said by some witnesses that between 16,000 and 17,000 bales of wool come into Brewarrina, and by other witnesses that 30,000 bales of wool come in there, to which evidence do you attach most importance? Well, I think the wool traffic there must be enormous.
562. I am speaking of the wool coming through Brewarrina to Bourke and to Byrock? I should say that it would be nearer 30,000 bales than 17,000 bales.
563. Have you any particular knowledge of the quantity that is sent to Brewarrina? No; I should think, however, that the Brewarrina traffic must be tremendously heavy.
564. You have not had time to ascertain the amount of the clips sent to Brewarrina from the various stations? No; I have not had time to obtain any information at all. I can only give you a bare opinion in favour of the line, based upon my general knowledge of the district.

- P. C. Close. 565. Have you any personal knowledge of the passenger traffic of the district? No.
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 567. The Commissioners estimate it at 1,500 persons per annum, which is less than five a day? I think that is an under-estimate.
 568. *Mr. Roberts.*] Which is the better country—that to the north of Brewarrina, or that to the south of it? It is very good country in both directions.
 569. Does it get better going north-west or going north-east? You cannot go wrong anywhere in the district. It is very good country all about there, right down to Gongolgon.
 570. And right up to the Queensland border? Yes; of course there are patches of bad country; but as a general rule it is "A 1."
 571. What are some of the best stations there? There are a number of good stations. Mr. Dickson's property is "A 1," and Mr. Sawers has splendid country.
 572. What is the distance between Walgett and Brewarrina by road? About 80 miles.
 573. Is it necessary to tap the river at both Brewarrina and Walgett? It is difficult to say. I do not think that the two lines would interfere with each other. The Brewarrina line would take all the traffic from its immediate district, and the traffic from the country lying to the north. The Walgett line would affect it very little.
 574. Are we to understand that you think there ought to be sufficient traffic for both lines? Yes; the Walgett line will have a traffic of its own. All the country out Goodooga way would go to Walgett.
 575. Would the traffic be divided about midway between Brewarrina and Walgett? I do not know exactly how the traffic would go. It would depend a good deal upon the freights from the two places.
 576. Does more stock go into Brewarrina than into Bourke? More stock goes into Bourke; but if the proposed railway were made, quite as much stock would come to Brewarrina. All the stock from the district round about Brewarrina, which is essentially a fattening district, would go to the proposed line.
 577. Are the roads to Bourke and the roads to Brewarrina equally good? No; the roads from Brewarrina go through the better country. Stock coming from Barrington have a better road if they come through Brewarrina.
 578. If the proposed railway were made would it get any traffic that goes to Queensland now? I should say that the traffic right through from Bundaleer and Thurulgoona would come to Brewarrina. A lot of homestead leases were taken up there quite recently.
 579. Traffic that would come from that direction would be wool? Wool and stock.
 580. Will not the Queensland export duty prevent Queensland wool from coming this way? No; I do not think so, where the stations are right on the border. The carriage to the Queensland railway is very heavy, because of the enormous distances.
 581. But the duty will have to be paid? Yes; but the fact that there will be less road carriage to pay would be an inducement to send this way.
 582. Even if the wool came to Brewarrina, is it not likely that it would go down the river from there? Some of it might, but there would be extra insurance to pay in addition to the freight.
 583. Would not the frequent handling materially add to the cost of transit? Yes; the less you handle the wool the better.
 584. Do you not think that if the railway is constructed the steam-boat proprietors will reduce their fares? I think the Railway Commissioners would be able to deal with that.
 585. Is it not acknowledged that river carriage is cheaper than land carriage? It is supposed to be so; but it would be impracticable to carry stock on the river. During the last drought thousands of stock would have been sent away by the railway if it had been possible to get them to the station.
 586. Do you know what number of sheep, cattle, and horses there is in the Brewarrina district? No; I have no statistics upon the subject. I only know the district is a very rich one.
 587. And you think that if the proposed railway were constructed, the traffic upon our lines would be increased? Yes.
 588. *Mr. Hoskins.*] The country between Brewarrina and Byrock is very thinly settled? Yes.
 589. If the proposed railway were constructed, there would be scarcely anything for it to do after the wool season was over? After the wool season was over there would be the live-stock traffic.
 590. The people would not send all their live stock out of the district? No; but they would send away a great many fat stock.
 591. In other districts there is the mining industry, and other things to give traffic to the railways? Of course, they are mining round about Gongolgon. We do not know what the resources of the district are.
 592. The tract of country between Byrock and Brewarrina is very badly watered? There is the Bogan, but the district you speak of is not well watered.
 593. There is no artesian water there? No.

Grainger Barton, grazier, sworn, and examined:—

- G. Barton. 594. *Mr. Lee.*] Do you reside in the district which would be affected by the construction of the proposed railway? Yes.
 7 Oct., 1897. 595. Whereabouts? I am interested in a holding about 7 miles from the proposed railway, and about 25 miles from Byrock.
 596. Have you been in the district long? I have been about thirty years in the Bourke district.
 597. I suppose you had opportunities to travel all through that district? Yes.
 598. You have seen it in good seasons and in bad seasons? Yes.
 599. An agitation has been going on there for railway extension for years past? Yes.
 600. Since the railway was extended to Bourke has there been a desire to take the line beyond Bourke, or to extend it from Byrock? It has been suggested that the line should be taken on to Barrington from Bourke, and it has also been suggested that the line should be taken from Byrock to Brewarrina.
 601. What part of the Darling country do you consider most suitable for pastoral purposes? I think the Brewarrina district is the best. From Bourke to Walgett and out to the Queensland border, and down on the Marra towards Nyngan it is all very good country.

602. If the proposed railway were constructed, do you think it would lead to an increase of settlement? I do. I am going in very largely for wheat growing. I have already 250 acres under wheat, and next year I hope to have over 1,000 acres under wheat. I will keep on increasing my area. G. Barton.
7 Oct., 1897.
603. Have you had a crop every year? Yes; I have had as much as 2 tons of hay to the acre, and over 30 bushels of wheat. Mr. Millen showed some of the wheat grown in the district at the House the other night.
604. I suppose your place is close up to the Bogan? It is not far from the Bogan. I have given wheat growing a trial, and I find that it pays me a great deal better than growing wool. Since I began no fewer than five others have started. I think that if the proposed railway is made a good deal of the land between Byrock and Brewarrina will be used more for farming than for sheep growing. It is thickly-timbered country, and is more suitable for wheat growing than for stock. There is another man not very far from me on the Bogan, and not very far from the proposed railway, who is clearing 100 acres, which he will sow next year. If the experiment is a success he will go on increasing his area. He is interested in one or two homestead leases there, just as I am.
605. Do you think that wheat growing can be carried on in the district upon a sufficiently large scale to permit of export, or will the wheat be consumed locally? There is a considerable consumption of chaff and wheat in the district. I have to cart my produce 40 miles to Bourke; but, if there were a railway, I could send it by train to Brewarrina, to Bourke, and to Cobar, and in years to come, if we grew more wheat than could be consumed locally, we could send the surplus to Sydney. Forty miles of land carriage keeps us out of the market altogether.
606. I suppose if people go in for farming there it must be in small areas? I do not think so. I have 16,000 acres there in two homesteads, and between 10,000 and 12,000 acres of it are very suitable for wheat growing. My country is similar to that for miles round. Wheat growing has gone ahead immensely in the last few years out in the Western district. Travelling frequently by railway as I do, I see a change every time. People are clearing their land, and are putting in wheat in all directions. If they get facilities for sending their produce to market, the people out west will go in for wheat growing just as the people in the southern districts, at Berrigan and elsewhere, are going in for it. I have proved that it can be made to pay.
607. If mixed farming can be carried on to any large extent in the district, the country will carry a much larger population than it has hitherto carried? Certainly.
608. Good as your results have been, have they not been obtained under favourable conditions? No, not necessarily so. I started to grow wheat in 1894. Last year I got a very fair crop and a good sample of wheat. The present is not a very favourable season, because we did not have rain until June, and we sow in April, or even in March; but we expect to have a first-class crop. Amongst the wheat which I gave to Mr. Millen were some of the best heads that I have seen.
609. But the years during which you have been growing wheat have been favourable years? They have not been out of the ordinary. Our rainfall this year has been $9\frac{1}{4}$ inches, and I have wheat growing now which will be a thorough success.
610. What rainfall had you last year? We had a tremendous fall in February, and the rainfall for the year was probably above the average. In an ordinary season, with an average rainfall of 16 inches, we can get an excellent crop of wheat.
611. The authorities say that a rainfall of 20 inches is necessary for the successful cultivation of wheat? I think they are mistaken. I know that we have only had $9\frac{1}{4}$ inches this year, because I keep a rain gauge.
612. You say that no matter what the rainfall has been, you have grown wheat successfully? I have grown wheat successfully during three years out of four. 1895 was the driest year that we have had. We only had 6 inches of rain at Bourke in that year, and the crops were a failure. I estimate that I will get a good crop three years out of four, and I think that is a fair estimate of what can be done in the district.
613. There must be some years when you will get no crop at all? Yes; 1895 was such a year; but in three years out of four you will get a good payable crop.
614. Would the Committee be correct in assuming that if the proposed railway were constructed any loss during the first few years would ultimately be made up by the agricultural freight in addition to the pastoral freight? Yes. This year I shall have from 300 to 500 tons of chaff, which I should send by the proposed railway if it were made. I have now to cart it to Bourke, at a cost of from 15s. to £1 per ton. It is my intention to increase my production to the fullest capability of the land.
615. Can you grow grain as cheaply as it can be grown in adjoining districts? I see no reason why not. There is not so much clearing to be done, the ground is no harder to work, and labour is as cheap. If the proposed railway were constructed, the cost of carriage would be nearly the same.
616. Could the land be brought into cultivation in large areas, say areas of 2,000 up to 6,000 acres? Yes; the whole of the land between the Bogan and Byrock, with the exception of small stony hills, is good agricultural land. Two-thirds of the land between Byrock and the Barwon, and from 20 miles from Bourke to Nyngan is magnificent farming land.
617. About Nyngan and Dubbo they are cultivating very large areas, and are using the latest machinery, including traction engines;—does your district offer sufficient inducements for the introduction of such machinery? I think so. I have some of the most modern machinery on my own place.
618. The first condition is to have large areas of land? Yes; anyone holding 10,000 acres of land in the district would be justified in going in for machinery.
619. There are large areas of suitable land? Yes; I might mention that my wheat is about 3 feet high at the present time.
620. The Railway Commissioners tell us that the proposed railway would have to be run at a loss, and that they see no prospects of an improvement;—you say that there must be an improvement, because, if facilities for transport are given, large areas will be brought under cultivation? Yes; as I have said, no fewer than five people have started growing wheat in the district, because they saw the chaff that I grew last year. People say: "If Barton can grow chaff, so can we." There are three people between my place and Brewarrina who have crops in, and there are two or three others who are preparing the land for next year.
621. You do not irrigate? No; we depend upon the rainfall. Not only can I grow wheat near Byrock, but I am growing it at a place 15 miles north of Bourke, out towards the Queensland border.

- G. Barton.
7. Oct., 1897.
622. *Mr. Wright.*] Anywhere near the Pera bore? Not more than 3 or 4 miles from the Pera bore. This is the first year that I have tried it there, and it has proved a great success. I am not irrigating there.
623. *Mr. Lee.*] There is less alkali in the Byrock country than in the Pera bore country? There is no alkali in the Pera bore country. The alkali is brought up from a great depth by the water of the bore.
624. Is there any land available for settlement in the district, or is it all held by a few owners? It is chiefly held by lessees. The resumed areas all round my place have been taken up by lessees.
625. The land held under pastoral lease will not be available for closer settlement for some years to come? No; but half of the land there has been taken up in homestead leases.
626. If the proposed railway is built, it will start with a loss of £5,000 per annum? That is the Departmental estimate.
627. Yes. The estimate of traffic may be too low; but we must take the figures before us. Do you think that in ten years after the completion of the line, the revenue derived from grain and from other produce would be sufficient to cover that loss? I think so.
628. Because of the increased production? Yes. The bulk of this land has been already taken up, and is being used for grazing; but in some places that is not so good as wheat-growing. I daresay you are aware that at Berrigan they get £4 an acre from land used for wheat-growing. You cannot get as much as that for grazing land. The people out west are all going in for wheat, and within ten years the bulk of the land will be held in farms, and the people will have combined agriculture with stock-raising. Another thing which Mr. Mack, of Naromine, has shown us to do, is, to grow lucerne after we have been growing wheat for two or three years. In that way we can fatten more stock than by any other means. There was a time when they never had a fat sheep on the Naromine station; but now Mr. Mack has some of the best sheep in the market. I intend to follow his example, and no doubt other people will do the same.
629. I suppose Mr. Mack was only able to do that after he got a railway? Yes; he could not grow wheat without a railway.
630. You hold that if you can obtain facilities for going to market, you will be able to do what they are doing in Naromine? Yes; and so will many others.
631. Given the same advantages, you would turn your land to the same good account? Yes.
632. *Mr. Wright.*] What is the land around Bourke like? It is black-soil country for a certain distance—for 10 or 11 miles back.
633. Is it good, bad, or indifferent country? The plain country is good grazing country.
634. But it is not good country for cultivation? No; the red country is good for cultivation.
635. What is the land held by your brother like? The greater part of it is very good grazing land—open plains and black soil. Another part of it is red-soil country, which is fair grazing land, and good farming land. I have tried to persuade my brother to go in for wheat-growing.
636. It is thirteen years since the railway to Bourke was opened, and there are miles of good country between Nyngan and Bourke;—are there 50 acres of cultivation between the two places? Yes, there are hundreds of acres.
637. How is it that during all this time Bourke has been supplied with chaff, flour, butter, and other things from the western and south coast districts? It is not so; Bourke is being supplied to a large extent from Girilambone and Nyngan.
638. But how is it that no one has thought of cultivating the land? I daresay that you remember when it was said that you could not grow wheat in South Australia north of Gawler Town. The then Surveyor-General surveyed a line beyond which he said nothing would grow; but, as a matter of fact, they are now growing wheat at a profit hundreds of miles north of that. So, too, people did not believe that we could grow wheat far back until the Victorians came into our southern districts. I have always said that wheat could be grown; but then I was engaged in other pursuits, and had no chance of trying it. Ever since 1870 I have thought that it could be grown.
639. For a long time wheat has been grown around Dubbo and Trangie, notwithstanding the prophecies of the ancients;—I want to know why people have not thought of going in for cultivation further west? Well, there has been a great objection to irrigating land from bore water. The squatters who held land in large areas were very jealous of the small settlers, and were afraid of them coming into the district. But now that people have taken up homestead leases they have gone in for cultivation, and you will see dozens of places between Nyngan and Bourke where there are very good crops.
640. There is a vast area of country this side of Nyngan which is quite as good if not better than anything west of that place,—why should people go further west when there is land available nearer the coast? There is a lot of land this side of Nyngan which would be better adapted for grazing. I do not say that all this country will grow wheat. Of course there are places like Trangie where the land is rushed. You will find that before long all that country will be cultivated.
641. There are belts of country suitable for one thing, and belts of country suitable for another thing? Yes; there are hundreds of acres between Nyngan and Bourke which are as suitable for agriculture as for anything.
642. Your contention is that the western country is capable of producing cereals at a profit to the grower, and that the construction of a railway from Byrock to Brewarrina would lead to a large area of land in the district being put under cultivation, and a large population established there? Yes. At the present time, if a man has a homestead lease, he and his son do all the work, except at shearing time; but when people go in for agriculture they must employ a considerable number of hands.
643. A homestead lessee might either cultivate a large area himself or have it cultivated on the halves system? Yes; I am cultivating my land with my brother on the halves system.
644. You contend that if the proposed railway were constructed a large area of land would be put under cultivation by homestead lessees, and possibly by pastoralists also, and that eventually the country would become more thickly populated? Yes.
645. *Mr. Roberts.*] Was it this year that you put in 250 acres of wheat? Yes.
646. Has this been a favourable year? Not particularly so. So far we have only had 9 inches of rain during the year, and, as our average rainfall is 16 inches, that leaves us 7 inches to come during the next three months. But, even if we do not get any more this year, the crop will have had sufficient to cause it to mature.

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647. The crop will not be a failure? No; we will get good crops in three years out of four.
648. Over what period has 16 inches been the average rainfall? Eight inches has been the lowest rainfall in any year, except 1895, when the rainfall was about 6 inches.
649. What is the maximum and what is the minimum rainfall? The maximum rainfall is as much as 24 inches, and the minimum, with the exception of one year, has been about 8 inches.
650. You are very sanguine as to the success of your experiment? Yes; I am so satisfied with it that I have laid out between £500 and £600 upon implements and machinery.
651. What area of land do you hold? Where I am going in for this farming, I have about 26,000 acres. I have 16,000 acres in one place, near Byrock, and 10,000 acres where I live, some distance north of Bourke.
652. You carry on your agriculture upon the halves system? Yes, at Byrock. My brother manages that place for me, and does the agricultural work on the halves system. My intention is to cultivate every acre. I am satisfied that there is more in wheat-growing than there is in raising sheep.
653. *Mr. Black.*] Will the present yield last? Of course no land will keep on giving good crops for ever, unless it is manured; but this land will do as well as any other.
654. *Mr. Roberts.*] Have you gone in for fruit-growing at all? Yes, I am going in for that.
655. What kind of fruit do you grow? Different kinds of stone fruits, and citrus fruits. In no place in the world will citrus fruits do better than they do out there.
656. Are they being successfully grown in the district? They are being grown at all the Government bores—at Pera, at Native Dog, at Enngonia, at Barrington, and at other places.
657. Do you think, if the proposed railway were constructed a large amount of traffic that now goes to Narrabri would come to Brewarrina? That is a matter which I have not gone into at all.
658. *Mr. Black.*] I gather from your replies that experience has shown you that a heavy rainfall is not required for wheat-growing; that you only require rain about the time of sowing, and during the first period of growth? Yes; if we get rain at the end of May, or about the middle of June, and then about August and September, we do very well. This year we got no rain until the middle of June, and then we got none again until September. We sowed in March, April, and May, and the seed was lying in the ground till the rain came. We had a fair rain in September.
659. Do you ordinarily have rain towards the end of the summer? Yes; February, March, and April are generally our best months for rain.
660. That would suit your sowing? Yes; we generally look for the break-up of the drought in February, and the rain lasts on to March and April.
661. If you put all this land under crop, where do you expect to find a market for the produce? Anywhere. The rates for wool, wheat, and flour are low. With crops of 30 bushels to the acre you could send wheat to Sydney, or even to England.
662. Are you growing wheat to cut it for chaff? Yes, principally. Mr. Rich has had the plans and specifications prepared for a mill, which, he says, he will put up in Bourke as soon as there is enough wheat grown in the district.
663. How far north from Naromine is your property? Byrock is about 150 miles from Naromine. The line runs in a north-westerly direction.
664. Do you think it would pay to irrigate cereal crops? I think it would under some circumstances.
665. How much per 1,000 gallons could you afford to pay for water? I do not know. That is a matter I have never gone into. It pays to irrigate with bore water. I know that in some cases they have got as much as 4 tons to the acre by irrigating.
666. Would it pay to raise water from the river to irrigate? That is a moot question. Of course, the bore water is very cheap, no pumping being required.
667. Will the crops pay if you have one bad year in four? I think so.
668. Do you not find the hot winds prejudicial to stone fruits? No; the hot winds are not so prejudicial at my place as they are near Adelaide, where they grow fruit very successfully.
669. Mr. Machattie, in giving evidence before the Sectional Committee at Brewarrina, said that he found it impossible to grow stone fruits, because of the shrivelling effect of the hot winds in November? Well, they grow very well in Bourke.
670. He says:—
The excessive heat is too much for the trees, no matter how much water you put on to their roots. If you spray water on to the trees, they will blister and die at once. We have exceptionally hot winds during January, February, and even as early as in November.
- Has that been your experience? Not in the Bourke district. I do not know Brewarrina so well. Almost every kind of fruit can grow at Bourke. I have grown apricots, peaches, nectarines, and figs, and citrus fruits grow splendidly.
671. *Mr. Humphery.*] Have you been to the Pera bore lately? I was there a few months ago.
672. How many of the farms are now unlet? I think they are now all let. The last one was taken the other day. I was there last May.
673. Is wheat grown there? A little. They are experimenting with it.
674. You cannot say what the results have been? No; but I was told the other day by one of the settlers that it was looking very well.
675. What is the cost of carriage from your holding to the nearest point on the proposed railway? The distance is about 7 miles.
676. What would be the cost of carriage? About 5s. per ton, and probably less—say from 2s. 6d. to 5s. a ton if you did it yourself.
677. What is the cost of carriage to Byrock now? The same as to Bourke—from £1 to 25s. a ton.
678. Have you sent any wheat to Byrock? No; I have kept my wheat for sowing. I have sent chaff to Bourke and to Brewarrina. It costs about £1 a ton to send it.
679. Then you could afford to pay 12s. 6d. a ton to send it by railway? Yes; though that is an excessive price.
680. It would be less than you pay at the present time? Yes; but the average rates are much lower than that.
681. Where do you send your wool now? To Bourke, where I have it scoured. It then goes to Sydney by rail.
682. I suppose if there were any difference in the trainage between Byrock and Bourke you would send to Byrock? Yes.

- G. Barton.
7 Oct., 1897.
683. *Mr. Black.*] From which property do you send your wool to Bourke? I shear on the property where I am growing my wheat.
684. *Mr. Humphery.*] Are you in a position to say anything in regard to the probable traffic on the proposed line? No; I have not gone into the matter at all.
685. What is the lowest rate you have paid for water-carriage from Bourke to Brewarrina? Fifteen shillings a ton.
686. And how much down stream? I do not know what is charged down stream. That is what Mr. Rich charged me on some chaff I sold to him.
687. You have not heard of any lower rate? No.
688. Do you know the district between Brewarrina and Walgett? No; I have never been above Brewarrina.
689. Do you know the district between Walgett and Narrabri, or between Walgett and Coonamble? No; I have never been there.
690. I suppose you are unable to give any information as to the probable trend of traffic in the event of the proposed railway being constructed? I could not tell you anything about it. I have not gone into the matter at all.

FRIDAY, 8 OCTOBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.	HENRY CLARKE, Esq.
The Hon. JAMES HOSKINS.	CHARLES ALFRED LEE, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	GEORGE BLACK, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and further examined:—

- H. Deane.
8 Oct., 1897.
691. *Chairman.*] Can you give us the cost of the Mudgee line, as far as you have any surveys, towards the north-west? From Mudgee to Coonamble the distance is 147 miles, and the estimated cost is £478,936, or £3,258 per mile.
692. What is the date of that estimate? July, 1896.
693. Do you desire to alter it at all? No.
694. Can you describe the country through which that line would go, and the public needs it would meet—the class of country and the kind of settlement? The country is on the whole very good. There is one hard ridge which you go over between Cobbora and Mendooran, and there is a little rough country a little to the west of Mendooran. As you approach Coonamble you get on to the black soil. From Coonamble to Walgett the distance is 68 miles. The estimated cost of this portion of the line is £186,872, and the cost per mile is put down at £2,748. There is a good deal of flooded country along that line, but it is probably possible, by keeping a little to the north or north-east away from the river to get a drier line. I think the estimate I have just given could be reduced in that way down to £2,500 per mile, or a total of £170,000.
695. Then the estimated cost from Mudgee to Walgett would be £650,000 approximately? Yes.
696. Can you give us the estimated cost of a line from Dubbo to Mendooran, and from Mendooran to Werris Creek, or right through from Dubbo to Werris Creek? The survey from Dubbo to Werris Creek has not been recently revised.
697. Reducing it by the percentage that has been followed on recent surveys in comparison with the amounts previously given, you might, perhaps, get some approximate estimate which would of course only be regarded as a rough statement? Taking it in that way, I should put that line down, adopting the usual reduction, at about £3,200 per mile right through. The estimate from Warren to Coonamble was revised last year, and will be fairly correct. The length is 63 miles and 33 chains, and the estimated cost £150,000 or £2,366 per mile.
698. What is your opinion of the country? It is very good country.
699. Pastoral or agricultural? It is claimed that a good deal of it is suitable for agriculture, although at present it is chiefly used for pastoral purposes.
700. Then from Dubbo to Coonamble? The distance is 93 miles and 45 chains, and the estimated cost £207,285 or £2,215 per mile.
701. And what is the class of country? It is not so good as between Warren and Coonamble. Between Dubbo and Gilgandra you go through some ridgy country, and from Gilgandra north to Coonamble the country is fairly good.
702. Is there good timber on the route towards Gilgandra for railway purposes? Between Dubbo and Gilgandra you get into the ironbark belt.
703. That line would open up some timber country? Yes.
704. What is the country like from Dubbo to Werris Creek? I think on the whole it is good country, though there are some ridges that are not very good. I have not been over that line myself, and I can only judge by the reports that have been made.
705. *Mr. Hoskins.*] There are several rivers to cross? None of the rivers are very troublesome. I do not think a survey exists of a line from Dubbo to Coonabarabran.* I believe there was an exploration, but I do not think there has ever been a survey, or if there has been, it was made a long time ago, and probably the plans are not available. With regard to the estimated cost of this line, I could not speak with any degree of accuracy, but I should think it would not be less than the cost from Dubbo to Werris Creek, which I put down at £3,200.
706. Has a survey been made from Woolabra to Collarendabri *via* Millie? It keeps a little south of Millie.

* NOTE (on revision):—I find that a survey from Mendooran to Coonabarabran and thence to Narrabri was made in 1884; no estimate was made, but the country is very rough in places; in fact, there is scarcely any level ground.

707. Do you know whether it is a light line? Yes; it is a very easy line, and although some few miles of the line go through flooded country, it will cross no water-courses except after the start, where two of the creeks break over and join. Otherwise, passing down the belt of country between those two creeks, the line is pretty dry. It would not, at any rate, be subject to damage by floods.

708. *Mr. Wright.*] Could you not start the railway to Collarendabri from Millie on the Moree-Narrabri line? No; I chose Woolabra as the starting-point on account of the water. If you take any other point than that, either north or south, you get very serious difficulties.

709. *Chairman.*] Have you the particulars with reference to the line from Narrabri *via* Wee Waa, and Pilliga to Walgett? Yes. The length of the line from Narrabri to Pilliga is 56 miles, and the total cost is £128,650, or a cost per mile of £2,297. There is a good deal of poor country—sandy country—on the south side of the Namoi. From Pilliga to Walgett the distance is 58 miles, and the estimated cost £133,400, or £2,300 per mile. The total cost from Narrabri to Walgett is £262,050.

710. Returning to the Mudgee end of those lines;—can you express an opinion as to whether the line should go *via* Mount Stuart, or by a more westerly route? The Mount Stuart route was examined and reported against. It was decided that the more direct route was much the best.

711. *Mr. Wright.*] Does that route go through Coolma? It goes through Cobborah.

712. *Chairman.*] For engineering reasons and for the due development of the country, the western line, and not the Mount Stuart line, is the better one? Yes.

713. That deals with all the surveys wherever made in that belt of country lying between the north-western and the western lines? Yes; I have given particulars according to the improved surveys.

714. What about the Muswellbrook to Cassilis line? That is a very rough line with heavy grades. Great difficulty was experienced in getting up and down some of the places.

715. Are you in a position to express an opinion as to what portion of the country should reach the north-western line, and what portion should reach the western line? I do not think I am prepared to give an opinion about that. At present Coonamble is a collecting centre, and the traffic chiefly runs into Warren and Nevertire. North of the Namoi I believe the traffic pretty well goes through Narrabri.

William Sawers, grazier, sworn, and examined:—

716. *Mr. Wright.*] You have a pastoral holding near Brewarrina? Yes.

717. You know something of the proposal which the Committee are now considering? Yes.

718. Would you like to make a statement to the Committee on the subject? Yes; I should like to make a short statement first, and then I should be glad to answer any questions that might be put. I advocate the construction of a branch line from Byrock to Brewarrina. I have considered the rival proposal to make the river navigable between Brewarrina and Bourke, but, in my opinion, a railway alone can meet the requirements of the district. I am aware that this railway will deprive a small section of the Western railway of a considerable amount of traffic. I do not regard this as of extreme importance, as almost any development of our railway system would be open to a similar objection. Only 47 miles of the Western line would be deprived of any traffic; but, as the Byrock and the Bourke rates are practically equal, the railway would not be deprived of any serious amount of revenue. In regard to the average up-river traffic—that is, from or to Bourke, the agent of the steamer company at Brewarrina gave evidence in June, 1896. He then stated that the traffic between Brewarrina and Bourke amounted to 10,000 tons yearly—4,000 tons up-stream and 6,000 tons down-stream; and he stated that his company, during the previous four or five years, had carried on an average between 27,000 and 30,000 bales of wool between Brewarrina and Bourke. A rate of 25s. per ton, delivered on the trucks at Bourke, was stated to be the lowest rate the agent knew of. This statement is doubtless correct, but it completely ignores the possibility of the railway being extended to Walgett. I will deal with the probable traffic to be obtained by a railway at Brewarrina, even if the railway also existed at Walgett. Fortunately, Mr. Shainwald furnished the Sectional Committee that inquired into the locking of the river Darling with a return for the years 1892, 1893, and 1894. He stated that this return was absolutely correct, and I accept it as such. During the three years referred to 80,436 bales of wool were landed at Bourke from Brewarrina and from beyond Brewarrina, up-stream.

719. Would that also include intermediate places between Brewarrina and Bourke? No; it includes the intermediate places between Brewarrina and Walgett, but no places below Brewarrina. The average number of bales was 26,812 per annum. Of the quantity stated in this return, 14,434 bales were loaded at Brewarrina, and 12,378 bales came from beyond Brewarrina, up as far as Walgett. Some important wool-sheds are on the bank of the river between Brewarrina and Walgett. Wool from Boorooma Station, about half-way to Walgett, and from that point down to Brewarrina, representing probably 3,500 bales, would be trucked at Brewarrina, whether the river were navigable or not. So I credit Brewarrina with an average river wool traffic of 17,934 bales. The balance of 8,878 would probably drift to a railway at Walgett. If there were no railway at Walgett, Brewarrina would naturally receive more traffic; in navigable years doubtless the whole 8,878 bales referred to. A railway at Collarendabri would not draw traffic by river from below Walgett. Unless there were a railway at Walgett the full up-river traffic would be drawn to Brewarrina, as navigation even as far as Walgett is regarded rather as an adventure. In round numbers I claim, from average river wool traffic, 18,000 bales, representing, at 5½ bales to the ton, 3,450 tons as absolutely certain to be trucked at Brewarrina. Keeping to Mr. Shainwald's return for the same period of three years, I find that the up-river traffic from Bourke to Brewarrina—goods traffic—averaged 2,054 tons, while over another 1,000 tons annually passed Brewarrina for places further up stream as far as Walgett. Probably about half of this 1,000 tons would be landed at various points between Brewarrina and Walgett. However, I claim only 396 tons, which, added to goods actually landed at Brewarrina, gives a total of 2,450 tons. The total down and up stream tonnage certain to form traffic for the proposed railway would thus amount to 5,900 tons—that is, even if there were a railway at Walgett. As to the ability of steamers to compete with a railway, I assert under no circumstances is it possible. River freight charges would require to come down to fully one-fourth of the present rate—12s. 6d. is the lowest rate hinted at; but this would probably be from wharf to wharf. The cartage at the Bourke end would be 3s. 6d., and a special river insurance of 5s. per ton would be a further essential charge. This would bring the total cost to 21s. a ton, or at the lowest £1. The people of the Brewarrina district would willingly pay such special rates

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as would place the new line on a paying basis. We only advocate its construction on this condition. I base my contention on an average charge of 10s. per ton. This rate would completely remove all chance of river competition. Mr. Shainwald and Mr. Harper, in evidence before this Committee in connection with the locking of the river, have both referred to 12s. 6d. as a freight rate. Mr. Harper said he found this to be the "prevailing rate" between Bourke and Brewarrina, and the other way. This is a most inaccurate and misleading statement; 25s. a ton for wool delivered on trucks at Bourke has been the prevailing rate from Brewarrina, and I believe, though I do not absolutely know, that 30s. is about the usual up-river rate. I would here refer to Mr. Barton's evidence of yesterday when he mentioned 15s. as the freight he was charged. This really was not freight at all. The conditions were that Mr. Barton sold to Messrs. Rich & Co. a certain amount of chaff from his farm. He delivered portion of his chaff at Brewarrina according to agreement, and portion at Bourke by teams. As chaff was being sold at Brewarrina at a higher rate than at Bourke, Mr. Barton naturally demurred at being paid the same at Brewarrina, and Messrs. Rich & Co., who absolutely control the management of the steamers, allowed him 15s. extra for the quantity of chaff delivered at Brewarrina. But this seems to me to be no indication as to what actual freight rates are. Of course, the steamer company may send a special parcel at any rate for purposes of their own; but it is contrary to fact to quote anything under 20s. as a prevailing rate. Referring to the question of a locked river, the Government would either have to charge river dues sufficient to return interest on a capital of £120,000 or suffer a loss at 3 per cent., of £3,600 per annum. If interest has to be returned it must be as a special charge on tonnage with cost of management and maintenance added (say) £1,000 on a traffic of 10,000 tons. This would amount to a charge of about 9s. a ton. If actual freight, with the essential river insurance added, were as low as 10s. a ton, the total result would amount to 19s. per ton. If I could load wool on railway trucks at Brewarrina, I should do so, even if the river rate were 5s. a ton lower. It would only be apparently cheaper, as the river insurance would bring the prices about equal. I wish to draw attention to a statement made by Mr. Shainwald before the Committee which inquired into the locking of the river. In answer to question 420, he said, referring to the Brewarrina to Byrock line:—

How could the cost of constructing such a line be repaid by its earnings, when there is a river to give constant competition? We can carry goods by river from Bourke to Brewarrina and from Brewarrina to Bourke for as little as 12s. 6d., though the regular rate is 20s. a ton.

Even so, if cartage at Bourke is 3s. 6d. and insurance 5s., the total charge would amount to 21s. per ton—certainly not under 20s. A railway could take the traffic at half the cost, or even less, and the extra handling, which is most objectionable, would be avoided. The bog of river competition in this inquiry will doubtless be used to its utmost. In reference to another phase of this question, I would draw attention to the Byrock returns, at page 38 of the last annual report from the Railway Commissioners. The out and in traffic combined amounted to 7,815 tons. This is about the average. Half of this tonnage would probably use the Brewarrina branch railway. But to keep within absolutely safe lines, I will claim only 2,600 tons out of this total of 7,815 tons. During the past few years I have frequently, owing to a fall in the river, had to send portion of my clip by road to Bourke, although I use the river when available. My neighbours would have a similar experience. I want particularly to point out that the proved average river traffic only represents a large proportion of the district wool traffic, by no means approaching the whole of it, the balance being divided between Bourke and Byrock in the way of road carriage. Several clips from the district are never sent by river from Brewarrina, but direct to Bourke or Byrock. The wool, for example, grown along the western side of the Culgoa River always goes by road to Bourke. I would like to illustrate this: Take the case of a station (say) 35 miles from Brewarrina and 60 miles from Bourke. The cost by road to Bourke would probably be 65s. per ton, and to Brewarrina 40s. But, as the steamer charges and the insurance added would amount to a further sum of from 28s. to 30s. a ton, it is cheaper and better to send by road. If there were a railway at Brewarrina, at a charge of 10s. by rail to Byrock, the wool could be landed at Byrock at 50s., as against 65s. by road to Bourke, a clear gain of 15s. per ton. About twenty-five homestead lessees settled along the Culgoa River are exactly in the position thus illustrated. Those homestead lessees combined send about 2,000 bales of wool to Bourke by road every year. Some large stations are exactly in the same position. If there were a railway at Brewarrina they would find it cheapest and quickest to truck there. I will give some particulars. Milrea station sends direct by road to Bourke, about 60 miles, although only about 30 miles from Brewarrina. Kenneberree is about 28 miles from Brewarrina, but 50 miles from Bourke, and Weilmorangle is about 60 miles from Brewarrina, and 104 miles from Bourke. These three stations always send their wool by road to Bourke, and they turn out between them on an average at least 3,600 bales of wool. I could mention other stations, but altogether I am prepared to prove that about 7,000 bales are annually carted to Bourke from this portion of the district, which would otherwise most certainly be trucked at Brewarrina, as after paying 10s. per ton for the use of the branch line to Byrock, the saving would amount to from 10s. to 20s. per ton on the transaction. The people of the Brewarrina district of course recognise that a considerable traffic would be diverted from the Bourke railway station; but as they are very willing to pay a special rate for the use of the branch line, I cannot understand why the Railway Department should be so very antagonistic, as I cannot see that any actual revenue would be lost. Mr. Harper, in his evidence, completely ignores, or is ignorant of, the large wool traffic now going to Bourke which would be diverted to the new line. This gentleman puts the estimated railway traffic, which would be brought to the new line between Byrock and Brewarrina, including, as he says, the up-stream traffic to Walgett—that is to say, ignoring the possibilities of a railway at Walgett—as follows:—Goods, 2,000 tons. This estimate amounts to only two-thirds of the proved existing river traffic alone. According to a return furnished by Mr. Shainwald, as absolutely correct, for the years 1892, 1893, and 1894, the river goods traffic from Bourke to Brewarrina alone averaged 2,054 tons, while over another 1,000 tons passed Brewarrina up stream in the direction of Walgett, making in all fully 3,000 tons of river traffic alone, and exceeding Mr. Harper's estimate by over 1,000 tons. Mr. Harper puts the wool traffic, again including up stream to Walgett, at 3,100 tons. Mr. Shainwald's return of wool traffic from Brewarrina and up stream to Walgett, stated by him as absolutely correct, and as extracted from his company's books, amounted to an average of 26,812 bales of wool, or, at an estimate of five and a quarter bales to the ton, 5,100 tons. This, it must be borne in mind, is for river traffic only. Mr. Harper apparently ignores the existing wool traffic to Byrock from the Marra Creek country, and also the traffic from Byrock to Brewarrina and stations from the south side of the Darling River

River across to the Marra Creek. Altogether, I consider the estimates as supplied by Mr. Harper, to be so wide of probability as to be quite useless. We are quite ready to prove our case at close quarters, and show every station and detail. Live stock would constitute quite a new traffic. Owing to the want of a railway it has not been very profitable to fatten stock. It would be an immense benefit if settlers could keep on trucking small lots to market. The larger stations, of course, send large lots of fat stock from the district, which are trucked at Bourke, at Byrock, and sometimes at Nyngan or Nevertire. I leave out what would be sent to Narrabri, as that would come within the influence of a railway at Walgett. Each of the other places named would lose some stock traffic if there were a railway at Brewarrina. The sheep trucked at Bourke and Byrock combined for the last railway year amounted to 255,207, and at Nyngan and Nevertire combined 397,151. The whole of the Brewarrina district constitutes perhaps the finest extent of fattening country in the Colony. There may be country equal, but certainly none superior. I estimate that from 160,000 to 170,000 fat sheep are certain to be trucked at Brewarrina, including a portion at Tarcoom. I would not be surprised if the number exceeded 200,000, as the Brewarrina railway would probably draw some Queensland traffic. In reference to this matter, Mr. Machattie is prepared to give proof in detail, taking station by station, and groups of small holdings. Referring to the cattle trade, many mobs of fat cattle annually pass Brewarrina towards Gongolgon, and travel up the well-watered Bogán frontage. Those cattle are chiefly trucked at Nyngan, as cattle drovers going to Byrock are away from the river frontage. Nyngan, therefore, almost a pure sheep district, trucks 7,920 head of cattle, and Bourke, according to the latest returns, trucks 19,209. Brewarrina, of course, would deprive both places of some traffic, and would draw fresh cattle from Queensland. I give my evidence in reference to cattle with some diffidence; but I think it reasonable to suppose that at least 10,000 would be trucked at Brewarrina annually. I therefore estimate that sheep and cattle combined would require 3,000 trucks, which at 15s. per truck would amount to £2,250. The sheep from that district being very largely-grown animals, they cannot be jammed in like smaller sheep from the poorer districts. Dealing with the probable passenger traffic, I would call attention to the Byrock and Bourke returns as published by the Railway Commissioners last year, and which represent a fair average. The number of tickets issued at Byrock was 1,918, and at Bourke 5,542. I claim that over three-fourths of the tickets issued at Byrock were to passengers who would join the railway at Brewarrina. A large number of Bourke passengers would find Brewarrina a more convenient starting point while without doubt a railway would develop this traffic. I estimate that at least 3,000 passengers would join a train at Brewarrina throughout the year, and allowing for passengers returning from Byrock, this would constitute 6,000 single tickets. I would point out to the Committee that the number of tickets issued at Bourke or Byrock only indicates the number of passengers going one way. Passengers returning to either place would be credited to the station from which they started. From an investigation of the returns it appears evident to me that each station is credited with the number of tickets there issued. Bourke, as I say, gets credit for 5,542 tickets; but this number only refers to the actual tickets issued at Bourke, and in no sense refers to the return passengers arriving at Bourke. I, therefore, claim 6,000 single tickets as a reasonable estimate covering each way, and at 6s. 8d. per ticket this passenger traffic would amount to £2,000. Parcels would probably bring £200. I may state that the coaches now carry a very large number of parcels, and, doubtless, they would increase if there were a railway. The mails, I believe, are put down at £618. I desire to state from my own knowledge and experience that a railway will tend to develop the district, and enable settlers to stock up their country with a feeling of security. It is always just when a drought is threatening to become serious that stock are fattest. Settlers would then ease their country by gradually sending fat sheep to market. Had a railway been at Brewarrina during the past ten or twelve years the losses which it would have been the means of preventing would have been sufficient to pay for its construction at least twice over. During a period of four years—from 1891 to 1894—as proved by the evidence of the Sub-collector of Customs at Bourke given before the Sectional Committee in connection with the locking of the river, £150,393 worth of bonded stores alone were landed at Bourke from southern colonies. It is also within my personal knowledge that South Australian boats often trade as far as Brewarrina, being, in fact, floating hawkers' shops. I have based my estimate of traffic on the assumption that a railway would be in competition at Walgett. If at Collarendabri, the total result would work out about the same. If there were a railway at Walgett, Brewarrina would not get the traffic of the country on the river east of Boorooma, and would gain some from the Upper Narran country. If there were a railway at Collarendabri, Brewarrina would lose the Upper Narran country, and would gain the country nearly to Walgett along the river, especially when the river was navigable.

720. You say that if a railway were constructed to Walgett, Brewarrina would lose a portion of its river traffic, but would gain more of the Narran traffic. How could that be the case? What I mean to convey is that whether the railway were at Walgett or Collarendabri it would not materially affect the result as regards traffic at Brewarrina.

721. Why should the existence of a railway at Walgett force the Upper Narran trade to Brewarrina if it does not go there now? If there were a railway at Walgett all the trade on the Walgett side of the Boorooma station would be Walgett trade, but if the railway were extended to Collarendabri instead of to Walgett —

722. But why would Brewarrina gain a portion of the Narran trade, if the railway were at Walgett? Because the people on the Upper Narran would prefer to send their wool to Collarendabri rather than to Walgett. I refer to the country about Angledool and up to the Queensland border.

723. That part of the country now sends its traffic to the Narrabri railway. Why would the fact of a railway coming nearer to them at Walgett cause them to send the traffic past that railway to Brewarrina? The squatters on the Upper Narran have told us that some of the people there have been advocating a railway to Collarendabri, and are not in favour of a railway to Walgett, because the roads into Walgett are very bad, and there are very good roads into Brewarrina, and also fair roads into Collarendabri. I do not wish to express any opinion as to whether the railway should be at Walgett or Collarendabri. I will put it in another way. Take country within 20 miles below Walgett on the river. Take Gingie, for instance, and Ulah—large stations from 10 to 30 miles down the river from Walgett. If there were a railway to Walgett their wool would go there, but if there were a railway to Collarendabri, they would prefer to send their wool to Brewarrina.

724. You have gone away from my question. You say that though Brewarrina would lose some of the up-river

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W. Sawers. up-river traffic it would gain some of the Upper Narran traffic, and I want to know why? I can only say this: that the Angledool people do not advocate a railway at Walgett at all; they are in favour of a railway at Collarendabri.

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725. But they do not at present send their wool to Brewarrina? Yes, some of them do, though the Angledool station does not. For instance, we have a letter from Mr. Sherwin whose station is close to Angledool, stating that he would send his wool to Collarendabri if there were a railway there, and that he would prefer Brewarrina to Walgett.

726. What you mean to convey is this: that if this railway were constructed to Brewarrina, it would draw some of the Narran and Angledool traffic that now goes down the northern line? I wish to convey this: that if a railway were extended to Collarendabri, the Brewarrina railway would get traffic from up close to Walgett, because the river is mostly navigable above Brewarrina, and although you cannot pass Brewarrina still you can have a small steamer above the bar navigating right up the river. There is a small steamer owned by Rich & Co., called the "Brewarrina," constantly running up and down the river, and using Brewarrina as a depôt for the wool. My contention is that if a railway were constructed from Byrock to Brewarrina, it would bring traffic to Brewarrina that does not now come there—that a new factor would come in.

727. And increase that volume of traffic? If there were not a railway at Walgett, we would get all the sheds as far as that place. But under any circumstances this is an aspect of the case that cannot materially affect my estimate of traffic. Most of the country on the south side of the Darling River would send its traffic to Brewarrina even though it is geographically nearer to Walgett. This is owing to the flooded country towards Walgett. I strongly protest against a scheme for locking the river. It appears almost an outrage to a pastoral community if they are offered a locked river, instead of a railway. In time the live stock trade will greatly increase. The river transit is of very little value generally, and for the conveyance of fat stock would be absolutely useless. In the event of chilled meat works being established at Brewarrina, river navigation would be useless. I now submit my estimate of probable traffic. I have felt it my duty to carefully avoid anything like exaggeration, and I am confident that the estimate I submit would be fully realised, and it is based on the assumption that there will be a railway at Walgett. In the first place, I take the existing river traffic, from which I claim in round numbers 18,000 bales of wool, or 3,450 tons. These are from the figures given by Mr. Shainwald. The goods traffic up stream as far as Boorooma, I estimate, again taking the figures as proved by Mr. Shainwald, at 2,450 tons. The wool traffic now drawn by road to Bourke is 7,000 bales, or 1,300 tons. The return general road traffic from Bourke back to the stations I put down at 200 tons. The Byrock traffic, wool and goods combined, each way, I have put at a modest estimate, not being in a position to give the exact details, of 2,600 tons. That refers to goods from Byrock to Brewarrina and the surrounding district, and the wool which comes from the Marra Creek and across from the Bogan, and in some cases right up to the Queensland border. These items give a total of 10,000 tons, which at 10s. a ton shows a return of £5,000. Then 3,000 trucks of live stock at 15s. a truck would be £2,250. The passenger traffic I put down at 3,000 each way, which at 6s. 8d. per head would amount to £2,000. The parcels I put down at £200, and the mails at £618, which is the estimate of the Railway Department. These different items of traffic show a total of £10,068. I put this forward as my deliberate conviction, and am prepared to show cause. The estimated passenger traffic may, perhaps, appear somewhat excessive, but I believe it would be even exceeded within three years after the construction of the railway. However, even if you care to reduce it by £900, it would only mean knocking £300 off my estimate. My estimates are based on present conditions. But even from a pastoral view the district is capable of great development, while there are many possibilities in other directions.

728. You have lived a long time in the Brewarrina district? Yes, for many years.

729. I believe you formerly represented the district in Parliament? I did.

730. I suppose you have an intimate knowledge of the district? Yes; a most intimate knowledge.

731. In making your calculations have you been guided by your own knowledge? I have gone into this matter entirely on my own knowledge, and without prompting, and I have taken the returns of the Railway Commissioners, and Mr. Shainwald's sworn returns, as a basis.

732. You rely largely, I suppose, on the returns supplied to this Committee on a former occasion by Mr. Shainwald, and also on the returns furnished by the railway authorities? Yes.

733. And, judging from these figures supported by your own knowledge of the district, you feel satisfied that the estimate of traffic submitted by Mr. Harper is a long way from being as large as it should be? I go further, and say it is simply absurd.

734. Take, in the first place, the passenger returns;—your estimate of the number of passenger tickets is 6,000;—that is exactly 75 per cent. more than the estimate of the Railway Department, which is only 1,600;—in making these estimates Mr. Harper, who is a railway expert in these matters, applies a rule which he has found fairly successful in the past;—he takes the total population of the district, and estimates for each person one railway journey per annum, and he says his experience tells him that that represents approximately the number of passengers who patronise the railway of a particular district? In reply to that I cannot give exact numbers; but, roughly speaking, I should say that the Brewarrina district would compare very favourably with the Bourke district in regard to population; and yet the Bourke station shows 5,542 passengers. I ask how that would work out on Mr. Harper's plan.

735. Judging from the respective size of the two towns, I should think Bourke was about ten times as large as Brewarrina? It may at present; but in five years' time, if there were a railway at Brewarrina, it would be a larger town than Bourke. Before Bourke got a railway I frequently travelled there by coach with only two or three passengers. If that had been taken as a guide of the number that would use the railway to Bourke, the estimate would have been very far out.

736. Your estimate of the number of passengers is based not on the present population of Brewarrina, but on the population that would be attracted by the existence of a railway there, and the additional facilities thus given to the people to travel? It is, of course, based upon that consideration, as well as upon the present population. I will give the Committee an instance with regard to the Bourke traffic. On the last two occasions when at Byrock I took particular notice, and counted the passengers in the train from Bourke, and the number of people who got into the train at Byrock from Brewarrina was greater than the number that came from Bourke.

737. So that, without working on any defined data, but from your general knowledge of the district and the country, you believe your estimate of the passenger traffic will be realised? I thoroughly believe so. But even if you knocked off 1,000 that would not make much difference.

738. You spoke just now about the large amount of tonnage received at Byrock during the past year, and I think you mentioned 7,000 tons.—was not that the year when the river could not be used at all? In reference to that I can simply say that I looked over the returns of the Railway Commissioners for four years, and I am prepared to give the figures to the Committee, as they relate to the Byrock traffic. The wool forwarded from Byrock in 1894 amounted to 7,768 bales; in 1895, 10,192 bales; in 1896, 9,738 bales; in 1897, 11,155 bales. The total earnings at Byrock are given as follows:—In 1894, £6,844 5s. 3d.; in 1895, £6,686 8s.; in 1896, £5,079 5s. 9d.; in 1897, £6,632 13s.
739. Those figures giving the earnings at Byrock would include all the traffic between Brewarrina and Byrock, and all the traffic coming in from the southern portion of the line? Yes; they represent all the traffic coming into Byrock.
740. When the river is navigable, does not a good deal of the Byrock trade go down the river? I am not prepared to say, but I do not think much of it does.
741. If there were no river traffic the earnings at Byrock would be greater? Yes, immensely greater.

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TUESDAY, 12 OCTOBER, 1897.

Present:—

THE HONORABLE FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

Henry Septimus Badgery (Pitt, Son, and Badgery), sworn, and examined:—

742. *Mr. Lee.*] You have been engaged in the business of a stock and station agent for many years? Yes.
743. Have you a personal knowledge of the country through which it is proposed to take the railway? I have twice been to Brewarrina from Byrock.
744. One of the points which the Committee would like to be made clear is as to whether, if the proposed railway were made, there would be any increase in the stock traffic of our railway system;—do you know what quantity of stock comes from this district? I am not prepared with any figures, but I know that large numbers of stock come from the district.
745. At the present time most of the stock-owners in the district are compelled to truck at Bourke, and the stock have to travel long distances down the river to get to Bourke? Yes; or else they go across to Byrock.
746. If the proposed railway were constructed, could we expect an increase in the stock coming from Brewarrina, and the country north of it, without seriously robbing the Bourke line? I do not know that the question whether it would be wise to rob the Bourke line is one which I can answer. I can only say that the proposed railway would be a great convenience to the producers about Brewarrina, and to the north and north-west of that place. A large number of the Queensland stock that now comes to Bourke would come to Brewarrina if the proposed railway were made. That would ease the stock routes very much. Now they are sometimes very bare.
747. There are times when, owing to the scarcity of feed on the stock routes, it is impossible for owners to drive their stock any considerable distance? Yes.
748. The nearer the railways can be taken to the pastures the more likelihood is there of securing the traffic from them? Yes.
749. To what extent would you say fat stock depreciate in travelling 46 miles? A great deal depends upon the state of the roads.
750. And upon the water? Yes; you cannot travel without water. The track from Brewarrina to Byrock is badly watered. There is no water after you leave the Bogan.
751. Do you think that 1,000 trucks a year is an over or an under estimate of the probable traffic in stock over the proposed railway? I should think that it would be an under estimate.
752. About how many trucks of stock come into Flemington in the course of a week? Lately we have been receiving a very small number, because of the losses suffered during the drought. Some time ago I should think the average number of sheep dealt with would be 70,000 a week.
753. And how many cattle? Between 2,500 and 3,000 head.
754. Is it a fact that the country on the Darling, the Culgoa, the Bogan, and the surrounding district is essentially a fattening country? Yes.
755. And large quantities of stock, both fat and store, are moved from it? Yes.
756. I suppose that, taking all the year round, that district supplies a fair proportion of the fat stock consumed in the metropolitan market? Yes; it is a rich pastoral country.
757. There are times when, owing to droughts, the supplies are very limited? The better the country the more it suffers in times of drought.
758. There is no country better suited for fattening purposes than that country? It is about the best of the inland pastures for fattening.
759. You have seen many droughts? Yes.
760. You are aware of the many difficulties with which the people in that district have had to contend? Yes.
761. Have you reason to suppose that there is less stock there now than there used to be, or that investors have less confidence in the district than they used to have? No. If they have had losses recently, the number of stock may be less than that usually carried.
762. But there would be no decrease in the number of stock from the lack of investment? Certainly not.
763. The country is so good that it is still held, and produces well in fair seasons? Yes; splendidly.
764. Do you think that, if the proposed railway were made, it would lead to the further development of the country, and would be of assistance to the people settled there? Most decidedly.

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765. Do you think it would attract trade? Yes; and would increase the value and productiveness of the properties there.
766. Would those properties be capable of further stocking so as to increase their output to any appreciable extent? Yes; they would be able to make use of the market at any time, and would not run the risk that they run now in being a long distance from the railway. If you have quick communications with a market you can deal with your stock quickly.
767. If the railway were brought 60 miles nearer to the Queensland border, stock would not have too great a distance to travel from the border to get to it? No.
768. Do you think that the proposed railway would attract stock to it? Yes; a great many of the stock which now truck at Bourke would truck at Brewarrina. The drovers speak very well of the road to Brewarrina.
769. Do you think that we could fairly expect additional traffic? I am sure of it.
770. Would the proposed railway attract more wool traffic? Of course it would.
771. Are you prepared to state definitely that the country would be justified in constructing the proposed railway, because its construction would materially assist the people settled in the district, and would attract to our railway system an amount of traffic which it does not now get? It is for the Railway Department to decide as to the wisdom of constructing the proposed railway. I can only give an opinion as to the benefit likely to arise from its construction.
772. The proposed line would be of great service to the district, and would attract additional traffic? Yes; it would settle people in the district. Small holders cannot go away from railways, and if you put a railway into the centre of a large and productive district such as this, you give encouragement to people to invest their money in, and to devote their labour to, the pastoral industry.
773. Has small settlement been a success in this district, so far as you know? A fair success. I think that the homestead lessees on the Darling, considering the seasons which they have had, have done fairly well where there has been proper management.
774. In a good season, when grass and water are plentiful, do you think stock would be likely to travel along the railway line in order to save freight? Only under exceptionally favourable circumstances. If it were a very favourable season, and the stock were prime and fresh, and there was a chance of hitting a certain market, they might be travelled; but, generally speaking, people cannot afford to travel stock alongside the railway.
775. Are the rates at present charged for bringing sheep and cattle from Bourke such as will admit of stock being sent to market at a profit? People have to use the railway; but they complain very much of the charges imposed upon them.
776. If an added charge of 10s. per truck were made, would that be a prohibitive rate? Where the people must use a railway you can hardly impose a prohibitive rate; but the people in the district complain very much of the present charges, and if the charges were increased they would avoid travelling by rail as much as possible.
777. If a rate of 15s. 6d. a truck were charged upon the proposed railway, would that cause stock in fair seasons to be driven to Byrock instead of to Brewarrina? No; I think they would be trucked at Brewarrina.
778. Is there any other point you would like to bring before us? There is only the question of the railway *versus* the river. If wool from the Brewarrina district is sent down the river to Bourke, I suppose the chances are that it may go still further down. It is quite out of the question to travel stock by river. I do not think we could arrange for the transit of stock by steamer, and I do not think that stock-owners would care to take the risk, the inconvenience, and the expense.
779. If the river were locked, and there were no railway, steamers might be employed to carry goods and wool, but they would not be used to convey stock? Certainly not.
780. The question at issue is,—would a railway tapping the river at Brewarrina take a large amount of the traffic that now goes to Bourke, and obtain additional traffic? It would take a great deal of the traffic that now goes to Bourke, and it would attract a lot of the Queensland stock, which might go to Bourke, or which might go to Dubbo.
781. What has been your experience in regard to the extension of railways into the interior;—has it increased the quantity of stock coming to the metropolitan market? I do not know that I can say that the extension of railways has increased the number of stock coming to this market. What has increased the number of stock coming here has been the operation of a large company which has made a market into which stock of all descriptions has been poured, especially at bad times and in dry seasons. Of course, the railways have brought stock into the market which otherwise could not have come in.
782. Before the railway was opened to Bourke, not many stock came from that district to the Sydney market? Yes; we have always had stock from that district.
783. Has not the quantity sent increased enormously since the railway has been built? Yes, very much.
784. Which pays an owner best—to drive fat stock or to truck them? To truck them.
785. To truck them gets them to market more quickly? Yes; and saves so much condition. You cannot travel stock beside a railway except under exceptional circumstances.
786. I suppose it is acknowledged among pastoralists that the railways must be used for the transmission of stock? Yes.
787. And the inference is, that the further they are extended the more they will be used? Yes.
788. The nearer you bring them to the pastures, the more they will be used? Yes; because the owners will derive more benefits from them.
789. *Mr. Trickett.*] I should like to pointedly draw your attention to an opinion given by Mr. Harper, who is an expert officer upon the staff of the Railway Commissioners, in regard to this matter. He was asked what the effect the construction of the proposed railway would be upon the carriage of stock in the district, and he said:—

I may mention what our experience is in connection with stock. During a good season, when stock can travel, the owners are not anxious to join a railway at the nearest point. They frequently make the stock travel far longer distances parallel with the railway than the distance between Brewarrina and Byrock.

—? I have no doubt that that is so in good seasons. At the same time, I do not give up my contention that it does not pay.

790. To travel stock, affects their value? Yes.

791.

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791. Although people do travel stock alongside the railway, it would be better for them to use the railway? Yes.
792. Then, why do they not use it? They imagine that they save by not using it. By travelling their stock they avoid parting with so much money.
793. But the travelling affects the price of the beasts when they arrive at their destination? Yes; of course some people have an objection to cattle which have been trucked from long distances, because they are sometimes bruised; but the loss of condition is a more serious thing.
794. Is it a good thing to have wool taken off the drays and put into barges, and then taken off the barges and carted to the railway station? No; the less wool is handled the better.
795. Do you think that if the proposed railway were extended, a great deal of the wool that now goes down the river, and at Bourke is carted from the river to the railway station, would go straight from Brewarrina, if the charges were reasonable? I am sure of it. If the producers could put their wool on the trains at Brewarrina, they would rather do so than send it down to Bourke.
796. There is a risk of damaging the wool in sending it by river? Yes; a great risk. The bales get discoloured and knocked about, and do not come into the market in the same trim as if they had been sent all the way by rail.
797. The cartage at Bourke means so much extra handling and expense? Yes.
798. *Mr. Wright.*] Is it not a fact that a great deal of stock from the north-western country is now driven to Nevertire and to Dubbo, instead of being trucked at Bourke and Byrock? A great deal of stock from that district goes down there. I had some stock yesterday from Yarrowin station. If the proposed railway had been constructed, that stock would have been trucked at Brewarrina.
799. Does not the stock from the country to the north and west of the Darling—from the Narran country—come to Dubbo? Yes, possibly. When people have to make a long journey with stock, they are often willing to go a slight extra distance in order to save railway carriage.
800. When a man could strike the railway in 100 miles, would he travel 200 miles to save railway carriage? In some cases he would.
801. Is not much of the stock which travels long distances knocked about very materially? Yes, sometimes.
802. That has a deteriorating effect upon its value? Yes.
803. Taking all things into consideration, cattle can be sent more cheaply and in better condition by train than by travelling along the stock route? I believe that it is more profitable to send them by train.
804. Although they get knocked about in the trucks a little, they do not lose condition? No.
805. You do not know this country intimately? No, not far out. I have been on to the Culgoa.
806. On general principles, you think that the nearer a railway is to people the more advantages they derive from it? Certainly.
807. *Vice-Chairman.*] Assuming the stock route to be well grassed, would it pay to drive sheep 60 miles when they could be sent that distance by rail for 2d. a head? I think it would be better to truck at Brewarrina.
808. Would there not be more than 2d. a head saved by trucking at Brewarrina? Yes.
809. What do you think would be saved? That is a very difficult question to answer.
810. Could you not say approximately? No; you could hardly calculate the saving.
811. Taking into consideration the cost of driving and the loss in weight? I can only say generally that it is not profitable to travel stock alongside a railway, but I cannot say what the saving is in using the railway.
812. Would you consider 2d. a head an appreciable saving? Certainly, in 60 miles.
813. *Mr. Wright.*] What would it cost to drive sheep 60 miles? That would depend largely upon their number.
814. Would it cost much for a flock of 300 or 400? If you had to get a man to take sheep from Brewarrina to Byrock; it would cost more than 1d. a head.
815. Suppose that were only part of the journey? An owner would not send 400 or 500 sheep a long journey.
816. They do not send many more than 400 or 500 head of fat sheep at a time from the stations out there? They could not afford to travel such small lots from the out stations. Of course, if they had a railway near them they would take advantage of it to send in any number of sheep that they might have ready for market.
817. It would pay them to send only a truck-load, then? Yes.
818. That would be between eighty and 100? Between eighty-five and 100, according to the wool. When a man is close to a railway he can take advantage of it directly he has anything to send to market; but where he has no railway he has to wait until he has a sufficient number of stock to make it worth while to send.
819. *Vice-Chairman.*] What number of stock are dealt with at Flemington during the year? We shall get through considerably more than 2,000,000 sheep this year.
820. Arriving by train? You may say that they all arrive by train. Between the 1st January and the 1st September of this year, 2,044,921 sheep and 87,424 cattle were dealt with at Flemington, exclusive of large lots purchased by the Riverstone Meat Company.
821. How many truck-loads would that be? You can allow 100 to a truck.
822. It would be reasonable to assume that a fair proportion of those sheep and cattle came from the pastoral district of Brewarrina? Yes, a large proportion.
823. But you cannot say how many, even approximately? No; I look upon this as a very large producing district, and one which is well stocked. They have splendid stock here. A large quantity was sold off Quantambone the other day.
824. One thousand trucks would carry between 85,000 and 100,000 sheep? Yes; we allow 100 sheep to the truck. Sometimes you can put more than 100 shorn sheep in a truck; but as the wool grows you have to put in fewer sheep. The average number carried by a truck would perhaps be a little under 100.
825. Do you regard 100,000 as a fair estimate or as an under-estimate of the number of stock coming from the Brewarrina district? I should say that it was an under-estimate.
826. *Mr. Wright.*] You must remember that, even if the railway were constructed, some drovers would continue to drive to the main line? Yes; but it must also be remembered that some stock would be
taken

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- taken over the proposed railway which would otherwise go to Bourke. The stock routes to Brewarrina are better than those to Bourke.
827. *Vice-Chairman.*] Do you think that the estimate would be an under-estimate, assuming that the railway is constructed from Narrabri to Walgett? A line to Walgett would take some of the traffic which would otherwise come to the proposed railway. Of course you could hardly expect people living nearer to Walgett to drive their stock to Brewarrina, if they could truck at Walgett without additional expense.
828. Have you sufficient knowledge of the district to say that the estimate of 100,000 stock a year would be a fair one if a railway were constructed to Walgett? I think it would be; but it would be an under-estimate if the railway were not taken to Walgett. There are some very fine stations back from Brewarrina, and the owners of those stations would sooner truck at Brewarrina, because there is a good, well-watered track there.

William Sawers, grazier, sworn, and further examined:—

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829. *Mr. Wright.*] On Friday last you said that you based your estimate of traffic very largely, if not entirely, upon the returns published by the Railway Commissioners, and upon a sworn statement of Mr. Shainwald, the manager of Messrs. Rich & Co.? Yes.
830. You then showed that the tonnage passing in and out of Brewarrina was greater than that estimated by Mr. Harper? Most decidedly.
831. What effect would the construction of the railway from Byrock to Brewarrina have upon the line from Bourke to Byrock? We admit that it would deprive it of a considerable amount of traffic. It would deprive it of all the up river traffic, and of the traffic which now comes in from the Culgoa side.
832. It would deprive it of all the traffic of which Brewarrina is the depôt? With the exception of the traffic that goes across to Byrock by road—that not being Bourke traffic.
833. So that in calculating the cost of the proposed railway some allowance should be made for this loss of revenue? We submit that the loss will be very little. If a special rate were paid upon the Brewarrina line there would be practically no loss.
834. What is the name of your holding? Bundabulla.
835. How far is it from Brewarrina? Thirty-three or 34 miles.
836. You resided there for a long time? Yes.
837. You know the district intimately? I think there is no one who knows it much better.
838. What is your opinion as to the adaptability of the district for the growing of cereals and the probability of any part of it being used for that purpose? I believe that the whole stretch of country between Byrock and the Bogan is, with the exception of a few ridges, good agricultural land. Four-fifths of it is fit for the plough.
839. Is the rainfall there sufficient for wheat-growing? I believe that the rainfall is about 18 inches a year.
840. It has been said that from 18 to 20 inches a year is the minimum rainfall under which wheat can be grown? The soil is very light, and I have often observed that when the heavier plains to the north of Brewarrina have not responded to the rain the country between Brewarrina and Byrock has been looking green. A very light rainfall will make that country respond. It is most magnificent agricultural soil, and Mr. Grainger Barton has found out that he can grow wheat upon it.
841. What is the country north of Brewarrina like? No doubt there are isolated patches of agricultural land there; but, generally speaking, that is pastoral country.
842. Is there any possibility of it being utilised for wheat-growing? I cannot give an opinion. Mr. Grainger Barton is now the pioneer of wheat-growing in the district near Bogan River.
843. But he has grown nothing up to the present? He says that he has obtained 30 bushels of wheat to the acre.
844. How many bushels of wheat has he grown? I could not say.
845. Do you think that on this belt of country the average homestead lessee will abandon sheep and go in for agriculture? I do not think entirely so.
846. Do you think that the country is likely to be still further used for the rearing of fat stock and the production of wool? Yes, with the exception of this particular tract, which may produce much wheat.
847. Notwithstanding that, you think the Government would be justified in constructing the proposed railway, and that the railway, if constructed, would pay very well? I am quite sure of it. The country could be developed to a very large extent, even from a pastoral point of view.
848. A man holding 100,000 acres of land does not get the same result from it as ten men each holding 10,000 acres? They may, or they may not.
849. The subdivision of the land into smaller holdings gives more production? I think the very large stations are not so well developed as smaller stations.
850. Do you think that there is any holding of 100,000 acres in New South Wales so well developed as it would be if held by five men in 20,000-acre blocks? I do not think so.
851. The subdivision of large areas has invariably proved the land to be capable of carrying more stock, and producing more wool? That is the general experience.
852. You see a future before this district, in which a larger population would be settled on it, and in which there would be a larger pastoral production? Yes; I think the district is capable of immense development. It is not half improved yet.
853. That statement will apply to the country to the north of the Darling equally as well as to the country to the south of it? Yes; it applies generally.
854. All that Narran country is very rich? Yes; it is magnificent country. The whole district between the Narran and the Culgoa is unsurpassed in New South Wales as a pastoral district.
855. And it is every year being increased in productiveness? Yes! except when checked by extreme drought.
856. You think that this increase in productiveness will continue for a long time? Yes; it only requires expenditure in providing for water, and in the subdividing of the land into small paddocks. When I went into the district it was supposed to be capable of carrying 3,000 sheep to a 16,000-acre block, or a sheep to something over 5 acres. The whole district now carries a sheep to about 3 acres, while my run carries a sheep to 2 acres. Tanks answer very well, and can now be put down very cheaply—at half previous cost.

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857. Then, you have practically doubled your carrying capacity? Yes, and I can increase it still more. Of course, the whole district has not been improved to the same extent; but it is capable of being improved to a still greater extent.

858. The Railway Commissioners estimate the passenger traffic upon the proposed railway at 1,500 persons a year;—I think you stated that you thought it would be more? Yes, and I based my opinion upon the information contained in the yearly reports of the Railway Commissioners. I would draw the attention of the Committee to the statements contained on page 44 of the Railway Commissioners' report for the year ending June, 1896, and on page 38 of the Commissioner's report for the year ending June, 1897. In the year ending June, 1896, 2,000 tickets were issued at Byrock.

859. Is there any out traffic from Byrock other than that towards Brewarrina? There is a certain area surrounding the town which supplies traffic to the railway, but it is inferior pastoral country. It is very light carrying country. I am certain that Byrock derives its importance chiefly from the fact that it is the nearest point upon the main line from the district of Brewarrina.

860. If we took 25 per cent. of the tickets issued as having been issued to people residing in the immediate vicinity of Byrock, 1,500 would represent the number of tickets issued to people coming from Brewarrina? I believe that three-fourths of the passenger traffic from Byrock comes from the Brewarrina district.

861. The figures you have given represent the number of passengers alighting at Byrock? I take it that every railway station is credited only with the number of tickets sold there. The out-tonnage from Byrock during the year 1896 was 7,239 tons.

862. That is wool, &c.? Wool and other produce sent from the stations. The in-tonnage was 1,845 tons. There is also an item here "Out-mineral tonnage 2,686 tons." I presume that that is contained in the total tonnage.

863. Are there not a lot of ballast quarries close to Byrock? I believe that there are; but I do not know much about them. 9,738 bales of wool were forwarded, and 60 trucks of chaff were received. The revenue from goods and live stock was £3,013 16s. 2d., and the total earnings, exclusive of special earnings, were £6,071 5s. The total earnings for the previous year were £6,686 8s.

864. Are your figures borne out by the figures you have just read? I think so. I had only the returns for 1897 when I drew up my estimate. I assumed that they afforded a fair basis, and I claimed about one-third of the total tonnage—2,600 tons—for the proposed railway. I thought I was fully justified in doing that, as Byrock itself is a very poor place, and its chief traffic comes from the Brewarrina district. The Commissioners' return for 1897 gives the following figures:—Number of tickets issued, 1918; revenue from tickets and coaching traffic, £2,943 11s. 2d.; out-tonnage, 5,933 tons; in-tonnage, 1,876 tons; mineral out-tonnage, 315 tons; number of bales of wool forwarded, 11,155; revenue from goods and live stock, £3,689 1s. 10d.; and total earnings, £6,632 13s.

865. During the period to which those figures apply, the river was not navigable between Brewarrina and Bourke? Yes; it was. That year we sent about one-half of our wool by river to Bourke. We sent the whole clip into Brewarrina, and about one-half of it was taken away by the steamer. The remainder, after it had lain at Brewarrina for a couple of months, we had to pick up and cart into Bourke.

866. Would the railway returns which you have read in any way bear out the figures in regard to the proposed line placed before the Committee by the railway traffic expert? I do not think so. I think they support my contention.

867. *Mr. Trickett.*] It appears to me that this question largely depends upon the amount of traffic which would come to the proposed railway;—could you give the Committee information as to the number of stations which would send traffic to the proposed line, the number of stock—sheep and cattle—on each of these stations, and the quantity of wool sent away by them? I could only give it to you now approximately. I know every block of country in the district, and I could take station after station all over it, up and down the different streams.

868. Could you give us some definite statement which it would be necessary for the Department to challenge? I shall be prepared to give you a written statement containing the information you require. Perhaps it would be better to put it in before the Sectional Committee at Brewarrina. From several of the stations we have returns as to the number of stock actually carried, and, in regard to the other stations, we know the area and the kind of sheep they carry, and we can calculate approximately what their output of wool would be, also fat stock.

869. What are your views in regard to the district as a place for moderately small holders? I think the available acreage in the district has been taken up by small holders. It is the only district in the Western Division where homestead leasing has been a success.

870. Mr. Harper said the other day:

There are 153 homestead leases; but it is currently stated that a large number of these are not occupied by lessees. This is, to a certain extent, verified by the fact that the last stock returns only indicated 118 holders of stock in the whole district.

? I think Mr. Harper seems to have gone out of his way to disparage our claims to a railway.

871. He says that out of 153 homestead lessees there are only 118 holders of stock in the district? Every homestead lease which has been taken up still exists. A homestead lessee can only sell to another homestead lessee. Some of the leases, however, are no doubt grouped. Nevertheless, they exist, and are stocked, and so far as their capacity for bringing traffic to the railway is concerned, Mr. Harper's statement has no relevance.

872. Your explanation of these figures is that two or more holdings may be merged into one? Yes; they may be grouped. In some cases these leases may be leased to pastoralists. On the whole, I think that homestead leasing has been fairly successful in the district.

873. A man can get along with 10,240 acres there? Yes; with first-class country. These lessees do not become wealthy, but they manage to live. A railway would greatly improve their position.

874. This country is sometimes subject to floods? Portions of the Brewarrina district are subject to floods.

875. Is the district worse off in that respect than other parts of the country? We are subject to floods now and again, and they curtail our area. The only serious floods which have occurred within the memory of living man are the floods of 1864 and 1890.

876. Those floods resulted in the destruction of a large number of stock? Yes.

877. But they may be regarded as quite exceptional? Quite exceptional, though both of them did a great amount of damage.

878.

W. Sawers. 878. Mr. Harper hazards this opinion in regard to the number of homestead leases :—

12 Oct., 1897. When I was at Brewarrina an impression prevailed amongst those who were candid enough to admit it, that this number would continue to decrease.

Is that your opinion, as an old resident of the district? I see no reason to form that opinion. The number of homestead leases cannot decrease. They may be leased, or they may be grouped; but they cannot cease to exist.

879. You are frequently in Brewarrina? Yes.

880. Do you hear any opinions of this kind advanced by the residents there? You hear it remarked that some of the country is being used by the squatters. I have no objection to being one of the candid people Mr. Harper refers to. Men sometimes take up homestead leases on too limited a capital, and they then find it pays them better to lease them to someone else.

881. But those cases are exceptional? Yes.

882. Were you engaged in squatting pursuits before you went into the district? I have been engaged in pastoral pursuits for over thirty years.

883. And before you went into the Brewarrina district? Yes.

884. You look upon this as a really first-class pastoral district? There is no question about it. It is a magnificent pastoral district. The only drawback is that, like all western country, it is subject to periodical droughts, and has only a small rainfall. A railway, however, would enable the settlers there to carry on business with a feeling of security, because it would provide them with a means of escape in dry seasons.

885. The carrying firms say that with a sure river they could reduce their charges to 7s. 6d. or, perhaps, 5s. a ton. I believe that the river has been navigable for as long as three years at a stretch;—do you know if the pastoralists and others have ever had their freights reduced to the extent mentioned, or to anything approaching it? I have never paid less than 25s. a ton for my wool. This year Messrs. Rich & Co. have taken the through contract to deliver our wool from Brewarrina to Sydney for £5 a ton. The railway published rates from Bourke to Sydney are £4 a ton; but we have very little doubt, though we cannot prove it, that Messrs. Rich & Co. obtain a considerable concession by offering a big parcel. I have no doubt that they are pocketing fully 25s. a ton, even this year.

886. Mr. Harper says :—

Under the circumstances of an ordinary river, which has up to the present remained unimproved by snagging operations, or otherwise, the rates between Brewarrina and Bourke have varied between 12s. 6d. and 20s. per ton.

? That is absolutely misleading. I am not prepared to deny for a moment that the company have not taken a parcel of something for 12s. 6d., where it has suited their own purposes; but I do not think that any pastoralist in the district has paid lower rates than those I mention.

887. You give that as an absolute fact? Yes. I am quite prepared to produce from our agents the receipts of Messrs. Rich & Co., which show that we have been charged 25s. a ton for years past, and I have no doubt that for small parcels higher rates are charged. Our clip has amounted to between 700 and 1,000 bales a year.

888. Mr. Harper has told us that :—

During a good season stock owners send their stock far longer distances parallel with the railway than the distance from Brewarrina to Byrock.

? I am not prepared to say that this has not been done by short-sighted pastoralists in the past; but the stock routes are yearly becoming worse. No pastoralist who knows his business would now dream of driving fat stock where he could truck them, even in ordinarily fair seasons. In exceptionally good seasons men might dodge on a little. A good many stock have not gone into Bourke because of the extremely bad roads to that town. Drivers have preferred to go through Brewarrina to Gongolgon, and then up the well-watered Bogan frontage to Nyngan. Cattle waste less going that way than in going to Bourke. During a bad season, two or three years ago, I had a big lot of sheep which I might have saved by sending them to Bourke; but I found that they would have wasted so much on the way that it was better to run the risk of leaving them on the station. At one time I used to send at least 10,000 fat sheep yearly to the Sydney market, driving them all the way from beyond Brewarrina to Homebush, a three months' trip. At that time the roads were so good that we could do it; but during the past few years I have practically abandoned sending fat sheep. We sell our sheep as stores now because we have no convenience for getting them to market. If we had the railway we would truck fat sheep.

889. You refer to people who drive their sheep past a railway station as short-sighted, because, although they may save a little in freight, they lose in the prices obtained for their stock? Yes; because the stock will lose in condition. Of course, some people do not like paying any more money than they can help. It was somewhat difficult for me to get an estimate of the wool traffic of the district until I read Mr. Shainwald's statement, at page 16 of the evidence taken in connection with the Committee's inquiry into the proposed construction of locks and weirs on the Darling. I should like the Committee to take particular notice of that portion of my evidence which refers to the West Culgoa traffic—traffic which has apparently been entirely ignored by the Railway Department. The other day I stated the distance to Weilmoringle wrongly. The distance is 61 miles from Brewarrina and 104 miles from Bourke. This clip, which amounts to between 1,700 and 1,800 bales, goes by road to Bourke, but it would go to Brewarrina if the proposed railway were made.

890. Have you noticed if there has been a falling-off in the traffic from Queensland? I only know from what I have heard in the district that Woolrina, a station which produces about 1,000 to 1,200 bales a year, and which used to send its clip to Brewarrina, sent to Queensland last year, owing, I presume, to the inducements offered by the Queensland Government. I know that some of the Queensland traffic would come to the proposed railway, because of the statements made to us by station-owners.

891. I suppose it would pay some of the people near the border to get their supplies from New South Wales if the railway came a little nearer? They do so now. There are several run-holders across the border who get their supplies through Brewarrina. I know that Mackenzie & Co. and the Brenda station people both do so at Brenda. They shear a lot of sheep at their sheds in New South Wales, which are depastured over the border. That wool would come to Brewarrina if there were a railway.

892. Are the approaches to Brewarrina better than the approaches to Walgett? The approaches to Brewarrina are better than the approaches to any place on the Upper Darling. The roads pass over a succession

succession of creeks which run into the Darling, which are bridged, and they are above flood-level. No flood will now prevent you from getting into Brewarrina, except equal to 1864 or 1890 floods.

893. The Brewarrina country is better country for travelling stock over than the Walgett country is? The country to the north of Walgett is extremely low, and subject to floods. I have here some samples of the wheat grown by Mr. Grainger Barton.

894. *Mr. Clarke.*] There is a great discrepancy between your estimate of traffic and that of Mr. Harper? According to Mr. Shainwald's sworn return, the down-river traffic in one year amounted to 15,960 bales of wool, and the up-river traffic to Brewarrina to 2,192 tons. That in itself gives about 5,000 tons. Mr. Shainwald also speaks of 12,285 bales of wool coming through Brewarrina from the direction of Walgett. I claim that all the wool coming from 40 miles beyond Brewarrina is produced within the Brewarrina district, and would come on to the proposed railway. He also speaks of 1,393 tons passing up stream, a large portion of which I claim never goes to Walgett. The river traffic alone far exceeds Mr. Harper's estimate of the probable traffic on the proposed railway. He does not take into consideration the Culgoa traffic, which now goes to Bourke, or from the Lower Macquarie to Byrock, or in some cases from north of Brewarrina. Mr. Harper's estimate seems quite inadequate.

895. What do you think would be the amount of traffic from all sources? I claim an average of 18,000 bales from the existing river traffic, that being the amount of wool shipped at Brewarrina, or including 40 miles above Brewarrina. I also claim that 1,300 tons of wool would come in from the Culgoa side. Then taking 2,600 tons for the Byrock traffic—or about one-third of the average total Byrock traffic—I claim 10,000 tons altogether. Mr. Harper does not include the Culgoa traffic, and he does not give the amount of the river traffic.

896. Do you still think that this country will be taken up in small holdings? I think that it would have been better if Parliament had allowed people to take up 20,000-acre holdings instead of 10,000-acre holdings. I think that for pastoral purposes a holding of 10,000 acres is too small in that district.

897. It is the opinion of some people that small holdings can be worked more economically, and to more advantage than large holdings? Out there we consider 20,000 acres a small holding.

898. Is wheat-growing likely to succeed with a rainfall of only 18 inches? If Mr. Grainger Barton can make a success of it, there is no reason why it should not be successful over hundreds of thousands of acres between the Bogan and Byrock.

899. If wheat could be grown in the district to any great extent, that would be a good reason for giving better means of communication to it? Certainly. I believe that there is a strip 2 miles wide reserved along the route of the proposed railway. The Government could cut that land up into agricultural farms and dispose of it straight away.

900. I suppose, as you go further north, the rainfall becomes less? I think that the rainfall is about the same right up to Goodooga.

901. Have attempts ever been made to grow English grasses in the district? Not to any extent. Most of the stations grow a considerable amount of hay. I grow wheat for hay, cutting it before the ears become full.

WEDNESDAY, 13 OCTOBER, 1897.

Present:—

THE HONORABLE FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

Laurence Henderson, stock and station agent, sworn, and examined:—

902. *Mr. Hoskins.*] You are acquainted with the district of which Brewarrina is the centre? Yes.

903. Have you any statement which you wish to make to the Committee? I should like to confine my evidence to the stock traffic of the district, and the facilities which the proposed railway would give for the export of fat stock from the district. During the current year the firm of which I am a member—Messrs Henderson Brothers—have had control on behalf of constituents of 37,000 fat stock in the Brewarrina district. That number of stock is equivalent to 423 truck-loads. Had the proposed railway been constructed, the whole of that stock would have been trucked at Brewarrina. As it was they were trucked at Byrock, Girilambone, and Nyngan.

904. Have you travelled through the district? Yes, a good many times, and right inland.

905. Does the trade of the Brewarrina district come to Sydney? The stock traffic comes chiefly to Sydney.

906. You are confining yourself to the stock traffic? Yes, I should like to confine my evidence to that.

907. How have you managed to get fat stock from the Brewarrina district to Sydney during the recent drought? We have generally travelled them to Byrock; but in some cases they have had to come to Nyngan and Girilambone. To travel stock long distances materially decreases their value.

908. I suppose the district between Byrock and Brewarrina is purely a pastoral district. No other industry except grazing is followed there? Not at the present time.

909. The traffic from a purely pastoral district is generally very limited, except during the wool season? Yes.

910. Then, I presume, that for six months in the year there would not be much traffic over the proposed railway? Well, that is going a little beyond what I wish to discuss in my evidence. If the proposed railway were made, the district might become an agricultural district; but as I am not an agriculturist, I cannot give evidence upon that point.

911. Unless there is a large accession of population, if the district is purely a pastoral district, the traffic must be very limited, except during the wool season? Of course there is the fat stock traffic all the year round. Fat stock are being sent from the district all the year round when the seasons are favourable.

912. Do you think that the number of fat stock sent from that district would be sufficient to pay the working expenses and interest upon the cost of the line? I could not answer that question.

913.

W. Sawers.

12 Oct., 1897.

L. Henderson.

13 Oct., 1897.

- L. Henderson. 913. If the proposed railway were carried out, would fifty trucks of stock be sent over it in a week, or would there be more? I should not think there would be more.
- 13 Oct., 1897. 914. You know what freight is paid on a truck of live stock? Fifteen shillings.
915. The Railway Commissioners estimate that there would be a loss of between £4,000 and £5,000 a year on the working of the proposed line? Well, I should like to explain that it is not half an hour since I was asked to come here to give evidence, and I have been able to make no preparations. I have not gone into the evidence of previous witnesses, so as to be able to criticise it. I have simply come prepared with a statement of the business transacted by the firm to which I belong in the district during the current year.
916. If the railway were extended from Narrabri to Pilliga, would that take from the proposed Brewarrina line any of the stock to which you have referred? No; all that stock would go to the Western line.
917. Suppose the railway were taken from Narrabri to Walgett? In any case the stock to which I have referred would go to the Western line.
918. What are your reasons for saying that? They would have a longer distance to travel to reach Walgett than to reach Brewarrina, and every mile which the sheep travel by road tells against them. I always advise people to drive their stock to the nearest railway station, and to truck there. It is false economy to travel sheep by road in order to shorten the railway journey, because the stock deteriorate in travelling.
919. Would not the country between Brewarrina and Walgett be much better country to travel stock over than that between Brewarrina and Byrock—is it not better grassed and better watered? There is too much water there at times; that has been the experience this year.
920. I am speaking of normal seasons? I should say that the pasture is richer. I believe that the Railway Commissioners estimate the stock traffic upon the proposed railway at 1,000 trucks per annum; but we, who are only a small firm in the city, have controlled 423 trucks during the present year.
921. You know nothing of the wool traffic in the district? No.
922. *Mr. Clarke.*] Have you any reason to offer in favour of the construction of the proposed railway? I advocate its construction for the transit of live stock to this market.
923. Have you any idea of the amount of revenue that would be obtained by the Commissioners from the transit of that stock? No; they would get 15s. a truck.
924. How many truck-loads would be sent? I should think at least 1,500 a year.
925. Are you aware of any other source of revenue? Of course a great quantity of wool would be brought that way. I have spent probably two months in the district this year, and all those whom I met there were much in favour of the construction of the line. They would support it in preference to the river, because the river is so uncertain. That is especially the attitude of people living above Brewarrina, where the river is not navigable so frequently as it is further down.
926. I suppose that the people in the district think that if the proposed railway were made they would get to market more cheaply than by sending by river to Bourke and from Bourke to Sydney by train? Yes, and there would be more certainty of delivery.
927. The Commissioners estimate that there would be a deficiency of nearly £5,000 per annum upon the working of the proposed railway;—it would take a large amount of traffic to make up that deficiency? Well, any statement I could make in regard to the traffic other than the stock traffic would be mere guess-work.
928. Can you say anything as to the possibilities of agriculture in the district? No; I am not an agriculturist.
929. *Mr. Trickett.*] I suppose you can tell us what is the effect of driving stock long distances? Once you take stock out of a paddock and put them on to the roads to travel they begin to deteriorate, no matter how good the roads may be.
930. Would that apply to cattle as well? Yes; you may start your animals in prime condition, but they deteriorate.
931. This is the evidence of an expert officer of the Railway Commissioners:—
- Our experience is, in connection with stock, that during a good season owners are not anxious to join the railway at the nearest point. They frequently make the stock travel far longer distances parallel with the railway than the distance between Brewarrina and Byrock.
- Is that your experience? No, it is the exception. I think that a man who does that is just travelling for experience, and he will have to pay for that experience.
932. You think that any saving in freight would be more than counterbalanced by a decrease in the value of the stock travelled? Yes. I always advocate trucking at the nearest point. I say to people, "Get the stock on to the railway, and have them slaughtered or disposed of as soon as you can after leaving the paddocks."
933. Even when the season is a good one? Yes. Of course you will understand that the fat-stock market is subject to fluctuations, and it may be advisable at times to keep stock back for a little while, to enable any "glut" to work off. On such occasions stock may be travelled down the railway line as a means of delay; but these occasions are exceptional. To travel sheep beside a railway in order to save freight is a cut-throat policy.
934. Do you look upon Brewarrina as a large stock centre? Yes.
935. Is it a bigger stock centre than Bourke? I could not say.
936. Can you tell us from how far up the river beyond Brewarrina station-owners would send their stock to Brewarrina to be trucked if the proposed railway were made? Some time ago I was spending a few days on a station which is 60 miles above Brewarrina, and they told me there that they were very much in favour of having a railway to Brewarrina. Stock from that run were travelled to Byrock *via* Brewarrina within the last month. Something like sixty or seventy truck-loads of sheep were sent.
937. Do you mean 60 miles by road or 60 miles by river? Sixty miles by road. The distance would be more by river.
938. Would not the station you speak of be nearer to Nevertire or to Dubbo than to Brewarrina? No.
939. Are the approaches to Brewarrina favourable for droving? Yes. You have the river to travel by, so that there is plenty of water.
940. Can stock be sent by river? No.
941. Why? Well, the time occupied in transit is against it. Then, too, the river north of Bourke is not in a very good condition, and the steamer might run against a snag, or be stuck in the mud, and you could

could not land the stock, or make provision for feeding them. It would be impossible to carry stock by river. L. Henderson.

942. And there would be the extra handling? Yes.

943. That would be undesirable? It would never do.

944. It is entirely out of the question to carry stock by river from Brewarrina to Bourke? Yes.

945. Does that apply to a modified extent to the carriage of wool? That is rather outside my business, although I have been told that a great deal of wool is sent to Byrock by road.

946. Even when the river freights are low there are expenses in the shape of insurance, and cartage from the river to the railway? I am not quite clear upon the point; but I think that the forwarding agents contract to deliver right through at a certain price.

947. Do you know anything of the road from Brewarrina to Byrock? Yes.

948. What is the character of the country through which it passes for the first 20 miles? For the first 8 miles you are on red ground.

949. That is good hard ground? It is good ground for travelling over in wet seasons. From there, after crossing the Tarrion, and until reaching the Bogon, a distance of 19 or 20 miles, you travel over black soil country.

950. That is bad country for travelling over? Yes, after rain it is almost impassable for heavy traffic.

951. Then you have the river to cross? Yes, and from there on to Byrock you have red soil country again.

952. That is good country for travelling over, and easy country for railway construction? It is very good country for railway construction, and good country for travelling over, but it is not good country for stock, and it is badly watered. On the direct route from Charlton to Byrock you have to go 35 miles without water in dry seasons.

953. Are you prepared to give evidence with regard to the proposed extension of the railway to Walgett? No; I am not very familiar with the country between Narrabri and Walgett. I have been over it, but I do not know very much about it.

954. *Mr. Wright.*] Sydney being the best market for stock, they come here by the most direct route, whichever that happens to be? Yes; some of the stock to which I referred were trucked through from Byrock to Melbourne. Stock intended for Melbourne markets would not go Walgett in any case, because they would have so much more railway freight to pay.

955. The trend of the traffic from the Brewarrina district is south, towards Sydney or towards Victoria? Yes.

956. Therefore the proposed railway would secure the bulk of the traffic irrespective of any other line? Yes, that is my opinion. It would secure traffic from close up to Walgett.

957. What is the name of the station which you spoke of as being 60 miles above Brewarrina? Milrea station.

958. What is the distance from Walgett to Brewarrina by road? I think that it is 85 miles.

959. The Department estimates that the number of stock which would be sent over the proposed railway would be 1,000 truck-loads per annum;—do you think that that is an under-estimate? Yes.

960. Does your firm control 25 per cent. of the total stock traffic of the district? I think we have had more than that this year. Of course the business is not assured to any one agent for more than a year.

961. Do you think you have 30 per cent of the traffic of the district this year? We have not had one-third of it. It is very hard to estimate the traffic. A great deal of the stock which might be trucked at Brewarrina if the proposed railway were made is now taken down to Nyngan, or to Girilambone.

962. At any rate, you are satisfied that the traffic over the proposed railway would be more than 1,000 truck-loads of sheep per annum? Yes.

963. Do you deal in cattle as well as in sheep? Yes.

964. Have you had many cattle from the district? No; we have not had much to do with cattle this year. It has not been a favourable season for cattle.

965. Have you had any experience of the cattle traffic through Brewarrina? The sheep traffic is heavier than the cattle traffic there.

966. Would not cattle from the neighbourhood of St. George sooner come to Brewarrina than to Bourke? Yes; Brewarrina would be the trucking-station for them.

967. Brewarrina has for many years been one of the great passing places for stock travelling from Queensland? Yes.

968. The inference is that, in addition to sheep, a large number of cattle would be trucked at Brewarrina? Yes.

969. That being so, which estimate of stock traffic do you think more reliable—the Departmental estimate of 1,000 trucks a year, or an estimate of 3,000 trucks per year? I should think the latter estimate.

970. From your knowledge of the trade can you state definitely that you consider 1,000 trucks a year an under-estimate? I consider it rather under the mark.

971. You do not profess to know anything about the probable transit of merchandise or of wool? No; I would rather not say anything about it.

972. What is your opinion of the country? It is a splendid pastoral district; and I think that a great deal of the red ground is suitable for agriculture.

973. Your experience leads you to believe that certain areas would be suitable, so far as the soil is concerned, for the growing of cereals? Yes.

William Sawers, grazier, sworn, and further examined:—

974. *Mr. Lee.*] The Vice-Chairman yesterday desired you to obtain certain information for the Committee? Yes, and I hand in now a map upon which is shown enclosed by red lines the area of country which I think would be certain to send all its produce to the proposed railway. That area comprises 4,600,000 acres, and includes the following pastoral holdings:—Milroy, Quantambone, Gnomery, Brenda, Muckerawa, Wirrah-warrab, Willow, Morrabilla, Boorooma, Gilgoi, Ballaree, Charlton, Weilmoringle, Keribree, Talawanta, Denman, Dumble, Cuttabunda, Upper-Bundabulla, Bundabulla, Collawaroy, Yarrawin, Lower Willie East, Calga, Tarcoom, Compton-Downs, together with 153 homestead leases. The traffic from that country is certain to come to the proposed railway. I have not dealt with any stations the traffic from which is doubtful. I have not dealt with stations the traffic from which might, under certain conditions, go to Walgett, or to Collarendabri, or to Bourke. I might state, that the number of homestead leases is approximate only; but at all events there are fully the number I have mentioned within the area shown on the map. I contend that upon the score of cheapness and convenience the area W. Sawers.

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- W. Sawers. marked upon the map must use the proposed railway even if a special rate is charged upon it as being a branch line. I should like to add that such stations as Toulby, and other country across the Queensland border, would probably send their wool, and certainly their fat stock, to Brewarrina if the proposed railway were made. We do not confine our estimate of traffic entirely to the traffic coming from the area shown upon the map; but the traffic from that area would be absolutely certain to come to the proposed line.
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975. Can you tell us approximately what quantity of wool came from Queensland to Brewarrina before the imposition of the Queensland export duty? I think you could get that information at Brewarrina without much trouble.
976. If it has been stated that, prior to the imposition of the Queensland export duty, only one clip of 500 bales came to Brewarrina from Queensland—do you think that that statement is correct? I think that it is incorrect. I have reliable information to the effect that the Woolerina clip alone amounts to over 1,000 bales. I would suggest to the Committee that if they put the representative of the steamship company into the witness-box they could get from him accurate information upon this point, as the clip has come to Brewarrina.
977. In your opinion the statement to which I have referred is incorrect? To the best of my belief it is incorrect.
978. We have before us three estimates of traffic—the Departmental estimate, £4,841; your estimate, £10,068; and the returns of the total business transacted at Byrock railway station during 1896, £6,071? Yesterday, at the request of Mr. Wright, I read out the returns of the Byrock railway station, and it has struck me since that the returns for passenger traffic might appear to bear out Mr. Harper's contention. In my evidence-in-chief I stated that of nearly 6,000 passengers booked at Bourke many would find Brewarrina a much more convenient point at which to join the railway, and that if they were charged a higher rate than the rate from Bourke to Byrock there would be no actual loss to the Department.
979. The Departmental estimate of expenses is £4,841 per annum, and your estimate of traffic is £10,068 per annum. Therefore, if your estimate were realised, there would be no loss upon the proposed line? That is so.
980. The Departmental estimate of traffic is £4,841 per annum, whereas you have shown that the Byrock returns for 1896 amounted to £6,071? Yes.
981. Do you think that, from the area enclosed within red lines on the map you have handed in, the Department would be certain to obtain all the passenger as well as all the live stock and wool traffic? Certainly.
982. The Departmental estimate of passenger traffic is based upon a tri-weekly service, which would mean 156 trips each way, or 312 trips both ways during the year; if only five passengers travelled on each trip, that would make the annual passenger traffic sixty in excess of the Departmental estimate. The proposed railway will be nearly 59 miles in length. Do you think it possible that the trains will run 59 miles without collecting more than five passengers each trip? The estimate seems to me perfectly absurd.
983. Are the people there to be carried? I can only say that the traffic averages as much as that now. The coaches are carrying more than that now. I have travelled by them quite lately, and each time we have had at least five passengers. The coach traffic now exceeds the Departmental estimate, and people do not travel by coach if they can avoid doing so.
984. How often do the coaches run? There are coaches six days in the week—three times *via* Taroom, twice *via* Gongolgon, and twice from Bourke—with return trips to match.
985. Who are the contractors? Local residents.
986. Where are their headquarters? At Brewarrina. You will have no trouble in getting evidence from them upon the spot. Of course, if the proposed railway were made, more people would travel by the trains than now travel by the coaches. If there were not a railway to Bourke there would not be 6,000 passengers travelling there by coaches out of Bourke.
987. You estimate a passenger traffic of 6,000 a year between Brewarrina and Byrock? Yes; 3,000 each way.
988. Why do you fix the price of tickets at 6s. 8d.? I thought that was a fair charge.
989. The Departmental charge is 9s.? I do not know if that is for a double or for a single ticket; 6s. 8d. is my idea of a fair charge one way, as an average.
990. If we charge your estimated number of passengers 9s., that will increase your estimate of revenue by one-third? By very nearly one-third. The coaches charge £1 each way, and they have charged £1 10s.
991. You have already said that you consider the Departmental estimate of stock traffic absurdly small? I view it as ridiculously low.
992. Supposing the Committee have been informed that the estimate has been based upon twice the number of stock coming from the district now, what would you think? I should be very much surprised. The evidence of Mr. Henderson that his firm alone had sent during this year nearly one-half of the Departmental estimate is sufficient to capsize that estimate. His firm is not the largest in the city.
993. Five hundred truck-loads represent about 50,000 sheep? Yes.
994. Do you know of your own knowledge if a lesser or a greater number has ever left the district in any one year? A small portion of the district would turn off that number.
995. How many have you known to leave the district in any one year? I am not in a position to tell you; but I know that I am quite capable of sending away 10,000 a year, and I hold only a very small portion of the entire district.
996. If I were to tell you that the Railway Commissioners are of opinion that their estimate is too great, what would you think? I would simply say that the Commissioners exhibit profound ignorance of the capabilities of the district.
997. Do you think it possible that they and their officers have been misled in regard to this matter? That is very likely. I assume that they do not know the country in detail. Their officers have probably visited the towns, and have acquired information from certain quarters, but they seem to have been grossly misled. Stock trucked at Byrock represents only portion of the traffic.
998. If there had been either wilful or unintentional misrepresentation regarding the probable revenue from the carriage of stock, you think a further searching investigation should be made? I crave and press for such an investigation.
999. You are of opinion that a closer investigation will show that the Departmental estimate is too low? Yes; and that my estimate is a very reasonable one. At Brewarrina we shall be able to put documentary evidence before the Sectional Committee in regard to the traffic from each station. Of course some stations may not give us this information; but where we have information from the surrounding stations we shall be able to strike an average, as country generally of an equal character.
1000. You are not able to go so closely into details in regard to the estimate of goods traffic? I can only make an approximate estimate of the goods traffic, but information can be obtained at Brewarrina. 1001.

1001. You have questioned four of the large heads of traffic; your contention is, that the estimates in regard to all these heads of traffic are considerably below the mark? Yes; very much so. The stock traffic has been under-estimated to a degree that really makes the estimate almost a farce. W. Sawers.
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1002. What passenger traffic would there be from Byrock if you excluded the Brewarrina traffic? The population round Byrock is very sparse, because the country is inferior. There are a few stations there; and if you go a little way up the line you have a platform at Glenariff, and you have a wool-trucking station at Coolabah.
1003. If Byrock has had a ticket issue of 2,000 a year; it would appear that to estimate the traffic from Brewarrina at 1,500 a year is to under-estimate it? Certainly. When the railway was made to Bourke I suppose the Department never anticipated a ticket issue of 6,000 a year; but that is the issue now. Before the railway was extended to Bourke there was a coach running there once a day, and I frequently travelled in that coach when there was only another passenger besides myself. The passenger traffic to Bourke at that time did not equal the passenger traffic to Brewarrina now.
1004. I think you said yesterday that the wool from your station was being conveyed to Sydney for £5 a ton? For £5 5s. a ton from Brewarrina. I believe that is what we are being charged this year.
1005. What is the distance from your station to Brewarrina? Thirty-four miles.
1006. And what is the rate of carriage from there to Brewarrina? It varies; 30s. a ton is about the usual rate.
1007. If the proposed railway were made, and it cost 10s. a ton to send wool from Brewarrina to Byrock, it would cost you £6 to send your wool into Sydney? Yes, as against £6 10s. at the present time. In addition to paying freight on the river, I have to pay a special river insurance, and the wool has to submit to a most objectionable amount of handling. Railway transit would save the insurance.
1008. If the proposed railway were made, would you send your wool to Brewarrina by river? No; my station is right away from the river, out towards the Queensland border. I always have to cart my wool to Brewarrina.
1009. If the proposed railway were made, you could send your wool to Sydney more cheaply than at the present time, and it would not be handled so much? Yes; I would willingly pay more if it were necessary to send it direct by rail.
1010. Can you tell us whether any of the stations given on your list would send their wool to Brewarrina by river? Yes, Boorooma, and possibly Collawaroy would do so. The stations on the river bank would probably come by river.
1011. *Mr. Wright.*] Do you include Euroka on your list? No, we do not go east of Boorooma. We hardly go one half of the distance to Walgett.
1012. *Mr. Lee.*] Those stations which are not able to use the river would have to bring their wool to Brewarrina by dray? Yes. Most stations are away from the river.
1013. Once wool is on the drays it might as well go to the railway station as be transhipped on to a river steamer? Yes; I object so strongly to the river transit that I am always telling my manager to get drays and send the wool direct to Bourke. The handling is so detestable that I should be glad to avoid it, even if it is to cost a little more for carriage.
1014. When there was a good river right up from Wentworth would the steamship owners be in a position to cut their rates lower than the railway rates, and thus secure a larger portion of the wool traffic? I am not in a position to say how low they could cut their rates; but I am positive that if the proposed railway were constructed no wool from the area I have marked on the map handed in would ever go to South Australia, or even to Bourke. In the old days I used to send wool to South Australia, though I do not know what the rates are now. The route is a most objectionable one, because the insurance rates are so high, and, added to the freight, are almost prohibitive.
1015. At the present time the steamship owners have little or no competition to meet above Bourke; but if the proposed railway were constructed they would have a competitor. Would not that lead them to reduce their rates, when there was a good river to such an extent as to make it impossible for the railway to compete? I do not think so, taking into account the insurance rates. Besides, I presume that if the Government made the proposed railway no Minister would be idiotic enough to put money on the Estimates for the snagging of the river between Brewarrina and Bourke.
1016. What becomes of the wool that goes to South Australia;—is it shipped to England from Adelaide, or is it sent around to Sydney to be sold? Some of it may be sent to Melbourne to be sold. In the olden days, before our railways were extended beyond Dubbo, a great deal of wool went down the river to South Australia, and was shipped directly to England; but the system of selling wool in the Colonies is growing, and, generally speaking, wool going to South Australia would come to Melbourne or to Sydney for sale.
1017. Sydney is almost the Australian depôt for wool? The largest sales are held here; but, of course, Melbourne competes with us.
1018. The Sydney sales are continuing to increase? Sydney is cutting Melbourne out; but both are large wool markets.
1019. Given a good river, if one lot of wool were despatched by steamer from Brewarrina to Adelaide, and another lot by train to Sydney, what would be the length of the respective journeys? The wool despatched by train would reach Sydney in twenty-four hours, I suppose; while the wool going to Adelaide would take, perhaps, twelve days. The journey used to occupy at least a fortnight, and often more.
1020. When the wool reached Adelaide, if it were a large clip, it would probably be shipped directly to England, because there is no large market for wool in Adelaide? There is no good market for wool in Adelaide.
1021. The wool sent to Sydney by train would be sampled and offered for sale before the wool sent by river reached Adelaide? It would be sold, and the money received a week before the other wool reached Adelaide.
1022. *Mr. Wright.*] Shipping down the Darling from Brewarrina is a thing of the past? Yes.
1023. All the wool that has gone down the river of late years has been transhipped at Bourke? Yes.
1024. *Vice-Chairman.*] What effect would the extension of the railway to Collarendabri have upon the Brewarrina traffic? The extension of the railway to Collarendabri would not affect the traffic in the area enclosed within red lines on the plan; but if the railway were extended to Collarendabri, instead of to Walgett, traffic would come to Brewarrina from almost as far east as Walgett. There are several large stations east of the area marked on my plan which would send to Brewarrina if the railway were taken to Collarendabri instead of to Walgett.
1025. If the railway were extended to Walgett from Narrabri, what effect would that have upon your estimate of traffic? The map which I have handed in was prepared upon the assumption that the railway is

W. Sawers. is to be extended to Walgett. If it is not extended to Walgett there will be more traffic coming to Brewarrina. I do not claim traffic from the country round about Angledool. I submit that that traffic would go to Collarendabri if the railway were taken there, and, failing a railway to Collarendabri, most of it to Walgett, if there were a railway at Walgett. My estimate is based upon certain returns. If I had dealt with the question entirely upon my own knowledge of the district I confess that my estimate of traffic would have been less; but I took Mr. Shainwald's return as authentic, though no doubt some of the traffic he refers to came from the direction of the Queensland border and possibly from the lower Narran country. I am quite clear, however, that if the north-western railway system were extended to Collarendabri and not to Walgett, my estimate of traffic for the Brewarrina line would prove too low. We should get more traffic for the Brewarrina line if the railway were taken to Collarendabri than if it were taken to Walgett.

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1026. You are firmly of opinion that the produce from the area marked on your map will go to Brewarrina, notwithstanding any extension which may be made to Walgett or to Collarendabri? Yes. That area, with the exception of some country in the direction of Byrock, includes some of the finest pastoral country in New South Wales, and it is capable of very great development. From the Darling to the Queensland border almost every block of it is magnificent fattening country.

1027. *Mr. Lee.*] If there were 1,000,000 sheep in the district what percentage would be sent to market as fat sheep? Well, some go in for breeding extensively, while others go in for fattening. We used to send 10,000 fat sheep to market every year; but, owing to the roads becoming bad, I am now selling my sheep as stores. I could, however, send away 8,000 fat sheep every year from 120,000 acres. I think that you might assume that 5,000 fat sheep would be sent away annually from every 100,000 acres.

1028. An eighth would be an approximate average? Yes, one-eighth of stock would be turned off as fats, or 12 per cent. This is rather a low estimate. It represents 180,000 fat sheep,—from 1,500,000 sheep.

THURSDAY, 14 OCTOBER, 1897.

Present:—

THE HONORABLE FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.

HENRY CLARKE, Esq.

The Hon. WILLIAM JOSEPH TRICKETT.

CHARLES ALFRED LEE, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

Hugh McLachlan, Secretary to the Railway Commissioners, sworn, and examined:—

H. 1029. *Mr. Clarke.*] Have you any statement to make to the Committee? No; I understand that the report of the Railway Commissioners has already been submitted to the Committee.

1030. Have you any evidence to offer in support of that report? No.

1031. Neither for nor against it? No.

1032. Have not the people of the district expressed a great wish for the construction of the proposed line? I believe so.

1033. Do you think that if the proposed railway were constructed it would take away any trade from a railway to Walgett? I do not think that much trade would come down the river if the railway were taken to Walgett.

1034. Colonel Wells has reported that a ballasted road through this district would cost at least £4,000 a mile, or £250,000 altogether, and that the expense of maintenance would not be less than £11,000 per annum;—do you not think that a good reason for the construction of this railway is that it would do away with the necessity for an expensive road? I do not think that the construction of the railway would do away with the necessity for roads. It might make an increase in the number of roads necessary. Of course, they have roads there at present.

1035. Do you think it likely that the Darling will be used for taking goods from Brewarrina to Bourke? It is used considerably at the present time.

1036. When the river is high? Yes; which is, on the average, half the time. The river is navigable at the present time, and it may remain so for a considerable period.

1037. It has been said that the proposed line might pay, but that it would only pay at the expense of the existing lines. Mr. Scarr says:

There is a fair prospect of the line proving a financial success; but it would be at the direct expense of existing lines.

? The Railway Commissioners do not agree with that opinion.

1038. You think that under existing circumstances the proposed railway would not be likely to pay working expenses and interest? No.

1039. Do you think it is likely to pay at some future time? That time is a long way ahead.

1040. Do you not think that the people in the district should have better facilities than they have at present? I do not see why they should get them at the expense of the country. They have already means for getting to market. Of course, a railway would give them further facilities; but it would be at the expense of the country.

1041. What way have they for getting to market now? By river and road.

1042. The river is not always navigable? It is navigable half the year.

1043. At other times they have to send goods by road? Yes.

1044. To Bourke? To Bourke or to Byrock.

1045. Taking everything into consideration, you are of opinion that it is inexpedient to construct the proposed line at the present time? That is the opinion of the Commissioners.

1046. *Mr. Trickett.*] This proposal, like a good many others, seems to have been under consideration for a number of years? Yes; it was reported upon by the Railway Commissioners in 1889.

1047. The Commissioners in their report, dated 15th July, 1889, stated that the line could not, on commercial grounds, be recommended; but that there was another aspect of the case;—have they altered their opinion in regard to it? On that occasion they suggested that the proposal was worthy of consideration. Since that it has in a much more definite form received full consideration, and they are not prepared to recommend it. The line when it was first reported upon by them would have cost a great deal more than it would cost if it were made now, and it is upon a knowledge of that fact that the Commissioners base their present recommendation.

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McLachlan.

14 Oct., 1897.

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McLachlan.
14 Oct., 1897.

1048. Mr. Harper has given us the cost of a ballasted road;—do the Commissioners take matters of that kind into their consideration? Yes; in a general way.

1049. I suppose ballasted roads of this length are never made in outlying districts;—when was the Bourke line opened? In 1884.

1050. I suppose it was in course of construction a couple of years before that time? Yes.

1051. Have the Commissioners any opinion as to which is the best commercial centre—Bourke or Brewarrina? I have not heard them express an opinion upon the subject.

1052. So far as you know they have never considered whether, supposing we were commencing again, the line should be taken to Brewarrina instead of to Bourke? No.

1053. I believe that a railway to Walgett is now under consideration? Such a line has been suggested; but I do not think any definite proposal has been made. There has been some talk of taking a line through Coonamble to Walgett, and of taking another line to Collarendabri; but the Commissioners have not been asked to report upon the former proposal.

1054. If a railway were constructed from Narrabri to Walgett, how would it affect the proposed line? There are a number of railway extensions which are likely to be considered, and they would all, to some extent, interfere with the traffic in the Brewarrina district. For instance, take the line from Bourke to Barrington. That line would take Queensland traffic away from Brewarrina. We do not get it now, and we should not be likely to get it on the Brewarrina line if that extension were made. Extensions to Walgett have been suggested from one or two centres, and an extension from the Moree branch to Collarendabri has been proposed. All these proposals isolate the Brewarrina line, and leave it to its local resources.

1055. Did you go into the question with Mr. Harper as to what extent of country there is likely to be served by the proposed railway? No. The Commissioners received Mr. Harper's estimates.

1056. You have not gone closely into the matter yourself? No.

1057. The Commissioners do not recommend the proposed line;—is that simply because it will not pay? Because it will not pay, and they do not see any prospect of development which would make it pay within a few years.

1058. Mr. Harper gave us some evidence the other day about stock-owners driving their cattle long distances in order to save railway freight;—do you know anything of that? I do not know anything about the stock traffic of this district; but Mr. Harper told me that he was prepared to support any of his estimates which have been questioned if he were recalled by the Committee. He went into the district, and made very exhaustive inquiries before submitting an estimate.

1059. Are the Commissioners favourable to the locking of the river between Brewarrina and Bourke? Yes; they have expressed an opinion in favour of that work. In a letter sent to the Committee some time ago they expressed themselves as favourable to it.

1060. They think it would be better to make the river permanently navigable than to construct the proposed railway? They think that in any case the river would always be a competitor for this traffic.

1061. How would the Government be recouped for the use of the river? I am not aware. I think that the Commissioners looked at the matter in this way: That if the Government wish to spend a large sum of money, without a prospect of remunerative return, the greatest advantage could be obtained by locking the river, because that would give a supply of water for irrigation as well as a waterway for traffic, and the cost would be slightly less than the cost of the railway.

1062. *Mr. Wright.*] I suppose that, as a rule, the Commissioners are in the habit of taking Mr. Harper's figures as substantially correct? Yes; of course they check the figures, and ask him the reasons upon which he has formed his estimate. If they think anything wants further elucidation, they ask him to go into it again. As a rule, they take his figures as correct.

1063. I should like to call your attention to one or two startling discrepancies between Mr. Harper's estimate of traffic, and the estimates of witnesses who have come before us. When this Committee sent a Sectional Committee to Brewarrina to inquire into the proposed locking of the Darling, the local agent of Messrs. Rich & Co. told them that:

The present traffic between Bourke and Brewarrina is 10,000 tons per annum—4,000 tons up stream, and about 6,000 tons down stream.

That would represent between 28,000 and 30,000 bales of wool. Mr. Harper, however, estimates the traffic as 2,000 tons of goods and 3,430 tons of wool. Then again, Mr. Sawers, making deductions from evidence given by Mr. Shainwald, the manager for Messrs. Rich & Co., traversed Mr. Harper's evidence, and stated that the traffic was under-estimated by more than one-half. Do you think that Mr. Harper can verify his figures? Mr. Harper is anxious to have an opportunity to do so. I saw that his estimate had been disputed, and I asked him about it, and he told me that he would be prepared to come before you and to verify his figures.

1064. Does the Railway Department receive the whole of the wool sent from this district, either at Bourke or at Byrock? I believe so.

1065. I suppose you receive the whole of the stock? Yes.

1066. Do you know the country in question? I have not been through the district.

1067. Have you found Mr. Harper in his deductions as to traffic generally correct? Yes.

1068. You think that those who say that the wool and goods traffic of the district is greater than Mr. Harper's estimate have made a mistake? Yes; it is not unusual for people interested in a proposal to exaggerate the value of the resources of the district it affects.

1069. Mr. Harper estimates the passenger traffic upon the proposed line at 1,500 passengers a year, while the Commissioners' returns show that 2,000 tickets have been issued at Byrock each year for the last two years;—that is only the traffic outwards from Byrock? Yes.

1070. If the inwards traffic were one-half the outwards traffic, that would make 3,000 passengers a year? Yes; but a certain number of tickets issued at Byrock would be issued to local people. The estimates of passenger traffic are, of course, only approximate. You might increase the number of passengers by 1,000 without affecting the earnings of the line very much.

1071. Mr. Harper estimates that 1,000 truck-loads of stock would be sent over the proposed line annually—that would be about 80,000 sheep? From 80,000 to 100,000 sheep.

1072. We have it in evidence that the number of sheep coming from the district is more nearly 250,000 than 80,000, and that in addition there is a large number of cattle;—you still think that Mr. Harper's figures would be borne out? He says that he is anxious to verify them. Byrock is not a very great trucking centre. In 1897, 11,000 bales of wool were sent from there, and in 1896, 9,700 bales. All that wool would not come through Brewarrina.

1073. Nineteen-twentieths of it would? With regard to live-stock, 116,000 sheep, or about 1,200 truck loads, were sent from Byrock, and 652 cattle.

- H. McLachlan.
14 Oct., 1897.
1074. In answer to Mr. Clarke, you said that so far as you know the Commissioners are opposed to the construction of the proposed railway upon two grounds—first, that it would not pay; and, secondly, that they saw no immediate prospect of the district developing sufficiently in order to make it pay within a reasonable time? Yes.
1075. *Mr. Lee.*] Supposing it were shown that the line would pay, would that meet the objections of the Commissioners? If the Commissioners saw that the line would pay they would recommend its construction.
1076. The only objection they have to it is that there is no prospect of its paying in the immediate future? Yes.
1077. If it is disclosed in the course of this inquiry that the traffic would be sufficient to pay interest on the cost of working, I presume that the Commissioners would withdraw their objection to the line? I think so.
1078. Do you attach much importance to the diversion of traffic from the main line? I do not think there is a great deal in that, because, of course, we should charge local rates. The rates from Bourke are practically the same as the rates from Byrock. The earnings of the proposed lines are based upon local charges.
1079. The Commissioners have asked for the special consideration of the fact that a large amount of traffic would be diverted from the main line;—I should like to know how it would affect the main line if the branch line carried its own traffic and were made to pay? What the Commissioners indicate is that there would be no new traffic on the proposed line; that the traffic coming from the district already comes to the railway. The construction of the proposed railway will not bring traffic from Queensland, nor is it likely to bring more traffic from the district than comes to the railway now.
1080. They are of opinion that they get all the fat stock traffic now that they would get if the proposed railway were constructed? A little more fat stock traffic might be obtained; but it would not be enough to make the line pay.
1081. The figures submitted by Mr. Harper have been very seriously questioned, and the Committee would like to obtain information upon various points from the local station-masters? Mr. Harper has already obtained all the information which they can give.
1082. Do the Commissioners offer any objections to the local officers submitting their books to us? I think you had better re-examine Mr. Harper. To examine a station-master is like examining the local agent of a firm, who does not know the firm's whole business.
1083. Mr. Harper assumes that on a line 59 miles in length the passenger traffic will amount to only five passengers a trip? The population of the district is very small. Of course you can lay down no rule as to the amount of passenger traffic that will be obtained on any railway.
1084. But the inference is that if the population is so small the amount of produce that would be sent from the district would be very little? We know that the district is not thickly populated.
1085. But is not Mr. Harper's estimate a very low one? It is reckoned upon the basis of one journey a year for each member of the population. You cannot lay down any fixed rules for passenger traffic. People will travel frequently over a line 10 miles in length which is near a big town, when they will scarcely travel at all over a line 100 miles in length which is a long distance from any large centre.
1086. But the people out in this district would travel more than once in the course of each year? I do not think so. They would not be likely to travel to Byrock for a picnic, nor would they go there on business, because their business centre would be Brewarrina; neither would they make many journeys to Sydney. The district is to some extent a self-contained district.
1087. *Mr. Hoskins.*] The country between Byrock and Brewarrina is almost wholly occupied by people engaged in pastoral pursuits;—does any great volume of traffic come from such country? Not when the traffic is confined to a local area, unless, of course, it drains to an immense centre like Bourke.
1088. At Narrabri you have an immense tract of country draining to a terminus, but at Brewarrina you are within 60 miles of the great commercial centre of Bourke, and within 80 miles of Walgett, another commercial centre? Yes.
1089. Therefore, the traffic from the Brewarrina district would be limited? It would be local.
1090. Do you know any case in point where a railway has been worked at a profit? I do not recollect any similar instance. In regard to the estimate of coaching traffic, I might mention that the population on the country between Culcairn and Corowa is much greater than the population between Byrock and Brewarrina, and the people there travel more frequently, because they are near to Albury and to other centres. The Culcairn to Corowa line is only 12 miles shorter than the proposed line, and the coaching traffic upon it amounts to £1,800 a year, including mails. The coaching and mail traffic upon the proposed line is estimated at £1,400.
1091. The Commissioners do not consider that Brewarrina would be the centre of a large tract of country? They consider that the traffic upon the proposed line would be almost purely local.
1092. Different estimates have been made as to the probable cost of this line:—in 1889 Mr. Deane estimated the cost at £4,366, and in the following June that estimate was reduced to £3,806; Mr. Deane now estimates the cost at £2,500 per mile;—can you say if the Commissioners, in making their report, have taken into consideration this reduction in the estimate of cost? They made their report on the last reduced estimate, and they consider that the proposed line would not pay.
1093. *Vice-Chairman.*] How many sheep were carried upon the railways last year? 4,390,000.
1094. Can you say how many of these sheep came from Brewarrina? No.
1095. How many came from Byrock? 116,000, and from Bourke 138,000.
1096. Would most of these sheep be fat sheep? I could not say.
1097. Can you say how many of them went to Flemington? I think the number received at Flemington was about 2,500,000.
1098. Would the rest of the sheep sent by train be store stock? Yes; and sheep going to Riverstone, to Albury, to Aberdeen, and to other places. Flemington is the principal receiving station for sheep. All the sheep that went to Flemington would be fat stock. I suppose three-fourths of the sheep carried would be fat stock.
1099. That would be over 3,000,000 sheep? Yes.
1100. We have been told that about 10,000 tons of freight would come in at Brewarrina, even if a line were made from Narrabri to Walgett;—assuming that these figures were correct, do you think that by charging special rates upon that traffic sufficient revenue would be obtained to justify the proposed extension to Brewarrina? 10,000 tons at 10s. a ton would give £5,000. That would make a difference of about £2,000 upon Mr. Harper's estimate.

1101. Mr. Harper's estimate of the live-stock traffic was 1,000 trucks at 15s. a truck; some of the witnesses examined, however, have said that a much larger number of sheep would be trucked;—supposing 2,000 sheep were trucked, instead of 1,000? That would increase the revenue by £750.

H.
McLachlan.
14 Oct., 1897.

1102. Leaving the goods and coaching revenue at the amount fixed by Mr. Harper, but altering the two items to which I have referred, what loss would there be upon the proposed railway? About £1,200 a year.

1103. What percentage would that be? About 1 per cent.

1104. If the figures which I have given you could be supported, do you think the Commissioners would feel justified in reconsidering their report? I think so.

1105. For the through traffic between Brewarrina and Bourke, what would be the difference in rates for merchandise and live stock, distinguishing wool? Between Byrock and Bourke, practically the same. Truck rates prevail in regard to most classes of traffic.

1106. May we say that the bulk of the traffic coming from or going to Byrock and Bourke, will be charged about the same rates? Yes.

1107. So that the line may be regarded almost as a free line beyond Byrock? The same rates prevail as far as Bourke as are charged to Byrock.

1108. The Commissioners practically give the free use of the line between Byrock and Bourke for goods going to Bourke? The same rates prevail; wool and truck loads of goods are charged at the same rate. On almost every system you have maximum rates of this kind. We have them on the Southern line, on the South-western line, on the Western line, and on the Northern line. Most railways charge these rates where competition has to be faced.

1109. Suppose the whole of the traffic which we are told would come in at Brewarrina reached Byrock by road, would the earnings of the railway be just about the same as if the traffic were taken from Bourke? Yes, so far as wool and general goods are concerned. Of course wool is a big item. For live stock the rates are different.

1110. Therefore, if you were paid a special rate upon the line between Brewarrina and Byrock, you would get so much new revenue? Yes. That is how the revenue for the proposed line is calculated. The estimate before the Committee is based upon local charges.

1111. At the present time it is all the same to the Railway Commissioners whether the traffic that you might expect to get at Brewarrina joins the railway at Bourke or at Byrock? We get the same rates for wool at either places.

1112. Assuming that the figures which have been placed before the Committee are correct, special rates charged upon the traffic carried from Brewarrina to Byrock would bring in a large additional revenue to the Western railway system? You would have an additional revenue to the extent of the local earnings upon the proposed line; but that line would cost more to keep up than the amount of this additional revenue.

1113. Inasmuch as at the present time a very large quantity of traffic goes to Bourke which, if the proposed railway were made, would probably go to Brewarrina, would not the figures which have been placed before us be considerably increased if you were to give Brewarrina credit for the whole of that traffic? We reckon that the increased traffic will return £4,841. I cannot see how more than that could be obtained.

1114. You have told us that 250,000 sheep come from Bourke and from Byrock? Yes; 138,000 from one place, and 116,000 from the other.

1115. You estimate a traffic of 1,000 truck-loads over the proposed line? Yes.

1116. Do you not think that that estimate could be largely increased? Mr. Harper thinks not.

1117. Do you think he has looked at the question from the point of view which is now presented to you? I think so. Of course, he can speak for himself; but I understand that he has given the railway credit for everything it would earn. The Commissioners think that his estimate places the prospects of the line in the most favourable light.

1118. Looking at the matter from the point of view I present to you, which is practically that of those who advocate the construction of the line, do you not think that you should reconsider your estimate of the probable earnings, having regard to the fact that a special rate would be charged between Brewarrina and Bourke, and that your earnings between Bourke and Byrock are at the present time very small? I do not see how that would affect the estimate. The additional general goods traffic upon the proposed line would be charged 10s. a ton, and the revenue we should obtain would be £4,841 a year. That would not pay anything like the interest, or cost of working the line.

1119. You say that from your point of view the earnings will not be increased; but, supposing it can be shown that the tonnage would be twice that estimated by Mr. Harper, the earnings of the line would be sufficient to induce the Commissioners to reconsider their recommendation? Yes. I think the Committee ought to re-examine Mr. Harper. There seems to be a conflict of evidence, and he would like to support his own figures.

1120. May we accept this as the position taken up by the Department: that if it can be shown that the line can be constructed and worked at a loss of not more than 1 per cent. per annum its construction would be favourably considered? The Commissioners would, in that case, be glad to reconsider the matter.

William McIntyre, Chief Electoral Officer, Chief Secretary's Department, sworn, and examined:—

1121. *Mr. Trickett.* Can you give us any information in regard to the population of the district through which the proposed line will pass? From the electoral rolls I have ascertained the number of electors living upon the country within 20 miles on each side of the proposed line, commencing at a point 10 miles from the Western line, and going as far as Brewarrina.

W. McIntyre.
14 Oct., 1897.

1122. *Mr. Wright.* Have you gone north from Brewarrina to the Queensland border? No; I have not gone beyond Brewarrina. I find that within Byrock division there are fifty-seven electors, who, I assume, represent a population of 114 persons, allowing one additional resident to every elector. In Brewarrina I estimate that there are 346 electors, or a population of 778 within the area defined.

1123. *Mr. Trickett.* That includes the population of the town of Brewarrina? Yes; I did not go beyond that town. The total number of electors within the area to which I have referred is 403, and the population 892.

1124. *Mr. Wright.* Can you give the Committee any information as to the population between Brewarrina and the Queensland border? No; the population in the Brewarrina Division is 1,050 persons.

1125. Would that include the population of Brewarrina? Yes; there are 226 electors at Brewarrina.

1126. How is it that you only allow one additional resident to each elector? Well, I find that there are 473 electors on the roll of the Brewarrina Division, and the Police, who have collected returns, reported that

the

W. McIntyre. the population in that division was 1,050, which means that the entire population is about twice the number of electors.

14 Oct., 1897. 1127. Can you obtain for us an estimate of the population within the area surrounded by pink lines on the map before you? Yes; I can make an approximate estimate of the population within that area.

Walter Alexander Smith, District Engineer, Roads Branch, Department of Public Works, sworn, and examined:—

W. A. Smith. 1128. *Mr. Wright.*] Have you any return to read to the Committee? I have a statement showing the scheduled roads affected by the construction of the proposed railway from Byrock to Brewarrina. It is as follows:—

Item No.	Mile-age.	Roads.	Amount Voted.						Amount Expended.
			1892.	1893.	1894.	1895.	1895-96.	1896-97.	
1372	85	Walgett to Goondabloui.....	£	£	£	£	£	£	£ s. d.
1373	105	Do via Goodooga to Brenda.....	...	555	450	270	500	450	1,647 2 7
1374	29	Do to Combogolong	350	350	380	80	150	100	1,017 7 0
1375	70	Do to Brewarrina .....	...	70	40	...	280	150	269 8 0
1379	60	Collarendabri towards Angledool.....	...	300	110	120	200	200	689 17 11
1381	28	Goodooga to Brewarrina.....	...	...	...	28	160	150	240 10 1
1384	49	Wee Talaba, via Angledool, to Goodooga	...	125	40	50	80	80	326 6 4
95/6									
1218	57	Byrock to Brewarrina (not now on Schedule).	...	...	...	...	129	...	2 13 7
1222	75	Brewarrina to Engonia (not now on Schedule).	...	...	...	...	150	...	75 11 7
		Total	350	1,400	1,020	548	1,649	1,430	4,454 11 7

Total amount voted £6,397 0 0
 ,, expended 4,454 11 7

1129. What was the total expenditure, taking out the roads from Walgett to Goondabloui, from Walgett to Combogolong, from Collarendabri towards Angledool, and from Wee Talaba, via Angledool, to Goodooga? £2,235 5s. 10d.

1130. Have you any personal knowledge of this district? No.

1131. Have you ever been in the district? It is many years ago since I was out as far as Nyngan. I do not know this part of the district at all.

1132. Have you any other information with which you could supply the Committee? No.

Charles Edward Rennie, Chief Draftsman, Department of Lands, sworn, and examined:—

C. E. Rennie. 1133. *Mr. Lee.*] Do you produce a map showing the tenure of land between Byrock and Brewarrina within a certain distance of the proposed railway? Yes.

14 Oct., 1897. 1134. Will you explain the map? Yes. The area surrounded by a red line shows country within 20 miles of the proposed route of the railway on each side, and beyond Brewarrina to the north.

1135. What point is on the line bounding the 20-mile limit to the north? It would be a point near the northernmost part of portion 1, parish of Morabilla.

1136. That is on the Bokhara River? Yes.

1137. How many acres of Crown land are there within this area? There are 231,350 acres comprised in reserves, and 599,070 acres not reserved, or 830,000 acres altogether. The Crown land reserved is coloured green, and ordinary Crown land brown. The blue hatching represents homestead leases and settlement leases. There are ninety-two homestead leases, and two settlement leases.

1138. How is the Crown land held? With the exception of about 4,000 acres, which are untenanted, it is held under pastoral lease.

1139. Until what period? Until 1918.

1140. What is the nature of the reserves? They are mostly travelling stock reserves and water reserves.

1141. Is there no Crown land in the district available for settlement at the present time? No—if you except the 4,000 acres which are untenanted.

1142. Are there reserves for camping purposes and town commons within this area? There are camping reserves, population reserves, and temporary commons.

1143. What is the size of the temporary commons, and where are they? There is a temporary common at Brewarrina; but I could not tell you, off-hand, what its size is, though it probably contains several thousand acres. There is a small population reserve at Gongolgon.

1144. How many pastoral holdings are there within this area? Sixteen leasehold areas either wholly or partly within the limits of the area shown on the map. They are as follows:—

Name.	No.	Name of Tenant.
Beemery	6	The New Zealand Loan and Mercantile Agency Co. (Limited).
Compton Downs	33	Australian Mortgage, Loan, and Finance Co. (Limited).
Wyuna Downs	41	The Agency Loan and Finance Co. of Australia (Limited).
Quantambone	44	R. H. Meares, J. C. Meares, and A. G. Meares.
Taroom	52	Bank of New South Wales.
East Bogan No. 15	75	Edward Smith Hall.
Collawarroy	76	Commercial Banking Co. of Sydney.
Yarrawin	83	James Tyson.
Mullingawarrina	98	N. R. M'Phillamy, H. A. M'Phillamy, and W. Wilson.
Mitroy	125	Dalgety & Co. (Limited).
Doradilla	171	Goldsbrough, Mort, & Co. (Limited).
Byrock	215	Commercial Banking Co. of Sydney.
Charlton	236	A. G. Langmore.
East Bogan No. 17	267	Bank of New South Wales.
Murrumun and Dural	280	James Tyson.
East Bogan No. 16	282	Bank of New South Wales.

H. C. Russell, C.M.G. 1167. *Mr. Lee.*] The planting season would extend from April to June;—could you give us any information in regard to the number of wet days in those three months? I can obtain the information for you.
 1168. Can you also obtain for us information as to the number of wet days in the first six months of the year? Yes.

W. McIntyre. William McIntyre, Chief Electoral Officer, Chief Secretary's Department, sworn, and further examined :—
 15 Oct., 1897. 1169. *Mr. Lee.*] You have some additional information to supply to the Committee? Yes; I have estimated the population within the area shown on the map submitted by Mr. Sawers. I estimate that there are 2,032 people living within that area.
 1170. *Mr. Wright.*] Does that include the aboriginal population? Yes.
 1171. *Mr. Lee.*] Have you taken your figures from the census returns? No; I have based them upon the electoral rolls. I have ascertained from the census returns the proportion of the adult males to the women and children in that district, and I find that the number of the adult male population, multiplied by two, will give the entire population approximately. There are very few women in the district. The census returns for the county of Culgoa—within which a part of this area is situated—show a population of 437 males and 185 females. This area comprises parts of the counties of Culgoa, Narran, Clyde, and Cowper. I find that the proportion between the sexes is about the same in all those counties.
 1172. What is the number of electors upon the last roll? I have that information in connection with divisions of the electorate of the Barwon. I find that there are about 1,047 electors within this area. The Brewarrina division contains 473 electors, or a population of 1,050.
 1173. That includes the township of Brewarrina? Yes, and a large area around the township.
 1174. The abnormal ratio of adult males to females and children is, I suppose, accounted for by the scarcity of schools, and other adjuncts of civilisation? Yes.
 1175. The further you go out the more the male population predominates? Yes; that is shown by the census returns.
 1176. Do you know if the population has increased or decreased during the last few years? I think that there was a large decrease about the year 1894; but the district has improved so far as the number of electors is concerned. The electoral rolls show that the number of electors is increasing.
 1177. *Mr. Wright.*] Have you had sufficient experience in the electoral office to enable you to make deductions as to the meaning of an increase of electors in this district;—have you been able to ascertain that it means a larger amount of settlement? The increase has been gradual. There has been no exceptional increase.
 1178. Still there has been an increase. The district has not been going back? No, it is going forward.
 1179. From what source do you get your information as to the population of the district? During 1896 we asked that the police might be instructed to furnish returns of the population in the divisions of electorates, in order to furnish a basis for the payment of registrars. The information thus collected was carefully checked, and it is the latest information which we have in regard to the population.
 1180. Do you find that the police occasionally miss a good number of names? They do not collect the names of voters. They simply furnish statistics as to population in order that we may have a basis upon which to pay the registrars. Self-registration is the principle upon which the electoral rolls are compiled. The rolls are made up from the butts of the electors' rights. The lists thus prepared are exhibited every year—during the month of August—for objections to be lodged, and these objections are dealt with by the revision courts.
 1181. Is there any connection between the return of population furnished by the police and the number of voters within any area? By taking the number of electors within the area, you can make an estimate of the population by which to check the returns furnished by the police. I have found that the police returns are very correct. The total of the whole of the divisions has been ascertained and compared with the population as estimated by the Government Statistician.
 1182. Supposing 500 persons in an electorate did not apply to register, what means would you have of knowing that those persons were practically disfranchised? None whatever.
 1183. You only obtain information as to the number of electors in a district through their voluntary applications for registration? Yes.
 1184. Your position does not require you to make inquiries on the subject? No.
 1185. Then it is possible that the population of the district might be wrongly calculated upon the basis of the number of electors' rights issued? Not to any great extent. Of course in a place like Wyalong, where there are a great number of people rushing in and neglecting to register, it might be different.
 1186. But at any rate this is not an infallible way of estimating the population? You only get an approximate estimate.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and further examined :—

J. Harper. 1187. *Vice-Chairman.*] Have you had an opportunity of reading the evidence of the witnesses who have been examined here since your examination? I have not seen the official report. I have read paragraphs in the newspapers.
 15 Oct., 1897. 1188. Have you seen the evidence of Mr. Sawers? I have only seen newspaper paragraphs about it.
 1189. That evidence is contradictory of the evidence given by you, and the Members of the Committee would like an explanation in regard to certain points connected with it? —
 1190. *Mr. Trickett.*] Mr. Sawers has handed in a map upon which he has enclosed by a pink line the area from which he thinks all traffic would come to the proposed railway? I doubt very much if the whole of that traffic would come to the proposed railway. I can give you figures, showing the actual traffic during a series of years. I think, however, that it would be better if I were afforded an opportunity of looking into these matters again before my further examination by the Committee.

TUESDAY, 19 OCTOBER, 1897.

Present:—

THE HONORABLE FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.,

CHARLES ALFRED LEE, Esq.,

FRANCIS AUGUSTUS WRIGHT, Esq.,

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

George Charles Yeo, Draftsman, Stock Branch, Department of Mines, sworn, and examined:—

1191. *Mr. Lee.*] You have some information to lay before the Committee? Yes; but before doing so I should like to recall the return which I put in last Friday, and to substitute for it the following return of stock for the years 1891 to 1896 inclusive for the Brewarrina and parts of the Walgett and Bourke Sheep District. G. C. Yeo.
19 Oct., 1897.

Sheep District.	1891.			1892.			1893.			1894.			1895.			1896.		
	Horses.	Cattle.	Sheep.	Horses.	Cattle.	Sheep.	Horses.	Cattle.	Sheep.	Horses.	Cattle.	Sheep.	Horses.	Cattle.	Sheep.	Horses.	Cattle.	Sheep.
Brewarrina ..	4,045	19,147	1,479,862	4,465	19,615	1,443,395	4,709	18,577	1,317,859	4,765	16,164	1,371,470	4,924	11,177	1,155,968	4,983	9,265	1,003,892
Par of Walgett	402	2,718	171,320	431	1,695	200,700	462	1,686	165,118	612	1,788	190,463	575	1,182	177,421	663	916	176,302
Par of Bourke	197	1,190	84,300	150	894	73,000	162	125	30,247	157	1,078	32,000	113	529	15,640	114	396	22,500
Total	4,644	23,055	1,735,482	5,046	22,204	1,717,595	5,333	20,388	1,513,224	5,534	19,030	1,593,933	5,612	12,888	1,349,029	5,760	10,577	1,202,694

1192. This return is compiled from the registrars' return for the area of country which it is supposed would be interested by the construction of the proposed railway, and which was marked upon the plan submitted to you? Yes.

1193. What other information have you? I have also a return for the year 1896 of the stock entering New South Wales from Queensland at Brenda:—

Road.	Horses.	Cattle.	Sheep.
Brenda <i>via</i> Brewarrina	125	4,038	.....
Brenda <i>via</i> Walgett.....	314	19,690	.....
Brenda <i>via</i> Bourke	18	560	10,448
Total	457	24,288	10,448

This return applies to the area shown upon the plan to which you refer. There is only one crossing-place within that area, namely, at Brenda.

1194. The stock shown in the return might have gone to Bourke, to Dubbo, or to Byrock? Yes; but they must have passed through one of the three places I have named, namely, Brewarrina, Walgett, and Bourke.

1195. You have no evidence to show where this stock went? We have the inspectors' certificates, and the owners' declarations regarding all stock coming into the Colony from Queensland. The stock is distributed chiefly to Dubbo, to Muswellbrook, and to Sydney.

1196. Part of the stock would go to the North-western line? Yes; to Narrabri, Muswellbrook, and other places along that line.

1197. What further information have you? I have a return made out by the Brewarrina Inspector of Stock, showing the number of stock moving in the Brewarrina sheep district during the year 1896. The return is as follows:—

ANNUAL Stock Traffic, Brewarrina Sheep District.

Road.		Annual Stock Traffic.		
From.	To.	Horses.	Cattle.	Sheep.
Toulby <i>via</i> The Culgoa and Biree	Brewarrina	400	6,250	325,000
Brenda <i>via</i> Goodooga and Bokhara	Brewarrina and Walgett	800	35,000	450,000
Barwon River and Brewarrina	Marra Creek and Bogan River	450	22,000	340,000
	Total	1,650	63,250	1,115,000

1198. That is the return of one inspector. None of the stock are counted twice? No; it is the return of one inspector. It shows the stock moving backwards and forwards, south and north. I have also a detailed list giving the names of all the holdings within the area marked on the map submitted to me, and the number

G. C. Yeo. number of stock on each holding. This area takes in portions of the Bourke sheep district, and the Walgett sheep district, and the whole of the Brewarrina sheep district.
19 Oct., 1897.

ALPHABETICAL List of Stockowners, with their Addresses, and Number of Stock in a portion of the Sheep District of Bourke, for year 1896.

Names of Owners in alphabetical order.	Name of Run or Holding.	Nearest Post Town	No. of Horses.	No of Cattle	No of Sheep.
Randall, F. H.	Tarcoom	Byrock	85	380	19,000
Foley, S., & Co. ....	.....	Gongolgon	29	16	3,500
		Total	114	396	22,500

ALPHABETICAL List of Stockowners, with their Addresses, and Number of Stock in the Sheep District of Brewarrina, for year 1896.

Progressive Number	Names of Owners in alphabetical order	Name of Run or Holding	Nearest Post Town	Acreage	No of Horses	No of Cattle.	No of Sheep	No of Pigs
1	Aborigines Protection Association	Mission Station	Brewarrina	5,600	20	41	734	6
2	Avery, T. H.	Enlorel	Angledool	7,953	11	10	2,195	
3	Arnold, H.	Munglty.....	Goodooga		5			
4	Atchin, C.	Albemarle	Brewarrina	1,200	2	20		
5	Barrd, S. & M. H.	Quantambone	"	215,000	227	213	75,910	5
6	Barton, Pearce	Thebarton	"	40,730	50	80	8,400	2
7	Barton, Pearce	Keribar	"	12,500	2		3,000	
8	Bank, N.S.W.	Wirra Warra	"	12,400	42	40	7,500	
9	Bayes, W. H.	Coobienda	Goodooga	15,000	18		5,110	
10	Burke, R., & Sons	Merringina	Brewarrina	20,480	53	15	12,007	2
11	Bacon, F. W.	Dumble	Goodooga	84,000	50	13	13,000	
12	Brooks, W.	Gidgea	Brewarrina	5,760	15	50	2,900	
13	Boosley, T.	Willobo	"	31,000	20	80	9,500	
14	Brooks, C.	Gughett	"	2,560	56	5	773	
15	Brown, J. L.	The Brigalow	Warren	43,000	28	200	20,306	
16	Beatty, J.	Neebine	Brewarrina	2,500	21	21		
17	Brown, W. L.	Brewarrina Common	"	20,000	...	4		
18	Brown, T. T.	Gidgerah	Warren	8,005	5			
19	Burdekin, V. B.	Willoh	Brewarrina		10			
20	Brady, T. H.	Marra Creek Junction	"	6,795	16	50		
21	Boatwright, G. H.	Bokarah Common	Goodooga		15	.....	
22	Biles, Helen	Common	Brewarrina		4			
23	Bywater, T.	"	"		64	111		
24	Berrell, M.	Culgoa Downs	"	10,240	6	24		
25	Bailey, W. J.	The Close	"	2,560	2	4		
26	Bank N.S.W.	Yucarie	"	10,240	...	...
27	Baker, J. T.	Carbean	Goodooga	640	23	27		15
28	Brown, Eliza	Whybrook	Brewarrina		3	.....	
29	Colless, J. G.	Abydos	"	18,339	19	10	5,720	
30	Carter, E. C.	Goonoo	"	7,630	15		3,500	
31	Cornish & White	Tara	"	29,940	10	15	6,040	
32	Curtin, C. J.	Papperton and Bowrale	"	20,000	15	36	6,090	
33	Connolly, J. P.	The Retreat	Goodooga	6,776	20	20	1,500	
34	Cornish, T.	Womboni	Brewarrina	50,000	62	230	30,808	5
35	Cross, T. M.	Mildool	Goodooga	7,899	8	65	2,529	6
36	Clemson, H.	Glenalba	Brewarrina	5,000	8	6	1,400	
37	Cullen, M.	Wattle Valley	Goodooga	5,653	7		2,000	
38	Canning, F. T.	Sandalwood	Brewarrina	1,687	8	6	503	3
39	Crowley, W.	Collywarry.....	"	38,000	70	400	7,000	
40	Capp, J. J.	Boyd Park	"	10,240	7	40	4,200	
41	Caton Bros. & Sons	Esperance, Back	"	31,340	67	50	10,384	
42	Carter, J. R.	Bogandera	Goodooga	10,240	3	4	2,000	
43	Carter, E.	Mugaldi	New Angledool	10,240	4		4,700	
44	Crothers, W. W.	Old Gnomery	Goodooga	20,470	20	20	5,000	
45	Comerford, E.	Waratah	Brewarrina	20,480	43	30	2,770	...
46	Colless, Caroline	The Retreat	"	5,000	26	5	800	
47	Codrington, E. W.	Moodonody	Angledool	10,240	18			
48	Cornelius, J.	Common	Goodooga		2			
49	Colless, W. C.	Sunnyside	Brewarrina	2,640	8			
50	Caldwell, J. O.	Common	Goodooga		1	...		
51	Clark, H.	"	"		6	8		
52	Crothers, Lily A.	Vermont	"	7,443	1			
53	Creed, H. G. P.	Common	Goodooga		3	.....	
54	Cowell, J.	"	Brewarrina		26			
55	Cullen, T.	Wattle Valley	Goodooga	40	10			
56	Callaghan, W. J., & Co.	Common	"		5	1		
57	Carr, J.	"	"		5			
58	Cullen, J. A.	Glendon	"	1,195	13	39		1
59	Colless, A.	Moorabilla	Brewarrina		12	8		
60	Cunneen, P.	Common	Goodooga		12	8		5
61	Cohen, A.	"	"		11	.....	
62	Cathe, H. L.	The Rocks	Brewarrina	798	9		30	
63	Cullen, Miss J. A.	Glendon	"	300			316	
64	Christian, J.	Ballan Run	Warren		5	19		
65	Dalgety & Co.	Talawanta and Toulby...	Brewarrina	172,311	226	333	53,781	...
66	Dickson, W. and L. C.	Yarrawin	"	208,500	180	800	58,000	
67	Dalgety & Co.	Gnomery	Goodooga	103,000	65	1,231	37,096	2
68	Doyle Bros.	Muckerawa	Brewarrina	58,833	47	62	15,007	
69	Dalgety & Co.	Milroy.....	"	211,000	320	125	68,702	4

G. C. Yeo.

19 Oct., 1897.

Progressive Number	Names of Owners in alphabetical order.	Name of Run or Holding	Nearest Post Town	Acreage	No of Horses	No of Cattle	No of Sheep.	No of Pigs.
70	Dumas, R.	Common	Goodooga		1	...	.....	..
71	Doyle, P. J.	Muckerawa Run	Brewarrina		7	...	.....	..
72	Dewn, J.	Barwon	"	160	2	3	.....	..
73	Davis, S. S.	"	"	2,500	2	9	.....	..
74	Dagg, J.	Dagworth	"	2,560	6	...	1,400	..
75	Drinkwater, C.	Weilmoringle	"		8	...	.....	..
76	Enlle, O. A.	Toorak	"	6,042	4	...	1,300	..
77	Elhott, T. J.	Booka Booka	"	16,000	25	143	7,025	..
78	Elhott, F.	Finger Post	Goodooga	1,900	3	...	.....	..
79	Fennell, S., Exrs	Wolkana	Brewarrina	81,498	54	18	16,996	..
80	Frater, G.	The Springs	Angledool	20,240	6	250	3,500	..
81	Flood, W.	Yandilla	Brewarrina	84,946	52	36	29,333	5
82	French, R.	Common	"		19	6	.....	..
83	Frost, W.	"	"		9	...	.....	..
84	Flood, Margaret H.	Yandilla Run	"		6	54	.....	..
85	Floyd, J. E.	Common	"		15	24	137	140
86	Green, J.	Mindadoo	"	16,635	40	45	12,106	..
87	Gideon and Sharply	Willawillinga	"	17,510	33	70	7,930	..
88	Guthrie, M.	Milhe	Angledool	8,029	5	20	536	..
89	Geach, Agnes	Common	"		7	21	.....	..
90	Gunning, A. B.	Avonridge	Brewarrina	320	9	...	19	..
91	Hoskins & Co.	Willamurrah	"	33,000	5	50	12,900	..
92	Hellman, J. V.	Yanta, H.L.	"	10,240	5	...	3,052	..
93	Hope, P.	Flat top	"	2,560	3	...	1,200	..
94	Hall, E. S.	East Bogan No. 15	"	23,709	10	380	3,000	..
95	Harding Bros.	Common	"		22	...	.....	..
96	Hobkirk, H.	"	Goodooga		5	...	.....	..
97	Hanson, H.	Cowley's H. L.	"	200	4	5	.....	..
98	Hickman, J.	Gera	Brewarrina	2,560	5	45	.....	..
99	Harris, T.	Common	"		2	20	.....	..
100	Johnston, W. A.	Innesfall	"	6,000	21	70	3,506	..
101	Jameson, Keats Bros.	Weilmoringle	"	340,444	226	192	47,410	..
102	Johnston, E.	Weeh West	"	5,760	12	...	.....	..
103	Jameson & Co	Common	"		11	...	.....	..
104	Johnston, E. C	Idavale	Brewarrina	6,000	16	24	240	6
105	Kee Quoy	Common	Goodooga	80	5	...	.....	..
106	Kirkpatrick, J. C.	Finger Post Holding	"		17	50	.....	..
107	Kee Quoy	Common	Brewarrina		4	.....	.....	..
108	Kelly, A. J.	"	"		20	.....	.....	..
109	Kirkup, J. S.	Bundulla Run	"		17	...	.....	..
110	Kerrigan, A.	Common	"		34	14	.....	..
111	Kerrigan, J. C.	Kerritar	"	2,560	20	41	.....	..
112	Low, R. A.	Cedar Glen	"	10,240	30	7	4,923	..
113	Little, M. J.	Marion H. L.	"	5,804	8	3	1,400	..
114	Lee, J. M.	Bantam Grange	"	10,000	6	7	2,220	..
115	Lindsay Bros.	Chailton	"	150,000	44	20	22,680	3
116	Lynch, E. G.	Templestowe	"	21,494	20	30	6,180	..
117	Lee Chong	Common	Goodooga		12	...	.....	..
118	Longford, A. W.	"	"		8	...	.....	..
119	Lynch, J.	Wolkana Run	Brewarrina		6	...	.....	..
120	Langham, J.	Common	"	17	3	8	6	..
121	Murray, W.	"	Goodooga		2	3	.....	1
122	Murphy, J., junr.	"	Gongolgon		14	...	.....	..
123	Mulholland, A.	"	Goodooga		1	...	.....	..
124	Martin, R. D.	Finger Post Holding	"		1	...	.....	..
125	Martin, J. M.	Martindale	"	5,600	31	14	.....	4
126	MacKay, J. K. and W. H.	Brewon	Brewarrina	80,000	...	...	29,575	..
127	Mannix, J.	Cato H. L.	"	10,240	18	18	3,720	..
128	Mannix, Mrs. T.	"	"	10,240	8	6	2,725	..
129	Maunsell, E. O.	Cuttabinda	"	18,000	34	24	17,371	..
130	Machattie, R. R.	Mapoga	"	10,240	1	...	2,800	..
131	Machattie, M. K.	Common	"		21	20	.....	..
132	Mills, J.	Gilgoon Run	"		9	...	.....	..
133	Moote, W. R.	Mogila	Goodooga	37,000	48	132	8,259	4
134	Mackenzie, J., senr.	Upper Bendabulla East	Brewarrina	22,394	60	330	7,130	..
135	M'Neill	Common	Goodooga		6	...	.....	..
136	M'Mahon Bros.	River View	Brewarrina	1,280	19	20	.....	..
137	M'Leod, W.	Gilgoon Run	"		5	1	.....	..
138	M'Kaig	Common	Goodooga		3	...	.....	..
139	M'Dougall, W.	Tarrion C.P.	Brewarrina	520	20	14	...	..
140	M'Instosh, Mrs. S.	Common	Goodooga		16	5	.....	..
141	Norton, W.	"	Brewarrina		10	20	.....	..
142	Nelson, H., & Co.	"	Goodooga		12	...	.....	..
143	Nibbs, J.	Gilgoon Run	Brewarrina		24	...	.....	..
144	Nesbit & Mitchell	Narrawin	"	38,675	41	37	19,833	1
145	Neale, J.	Moorabilla	"		17	13	.....	..
146	Nugent, E.	Whybrook	"	1,173	1	...	.....	..
147	Nugent, Miss M.	"	"		4	...	.....	..
148	Nugent, J.	"	"		4	...	.....	..
149	O'Neill, J., junr.	Quantabone	"		14	12	.....	..
150	O'Neill, R.	Common	"		1	...	.....	..
151	O'Hea, P.	"	Goodooga		9	...	.....	..
152	Olsen, O. N.	Tamin Irrigation	Brewarrina	100	4	...	.....	..
153	Peel River L. & M. Co.	Currawillinghi	"	54,900	20	...	11,775	..
154	Popplewell, H.	Cobram	"	10,240	17	15	5,127	..
155	Pigott, W.	Elersley	"	1,000	19	1	.....	..
156	Pratt, E.	Common	Goodooga		2	3	.....	1
157	Patt, J. J.	"	Angledool	7	7	3	.....	..
158	Plowman, J.	Beemery Run	Brewarrina		10	...	.....	..
159	Pollard, T.	Common	"		5	...	.....	..

G. C. Yeo.
19 Oct., 1897.

Progressive Number.	Names of Owners in alphabetical order.	Name of Run or Holding.	Nearest Post Town.	Acreage.	No. of Horses.	No. of Cattle.	No. of Sheep.	No. o Pigs.
160	Parkins, F. J.	Never Dry	Brewarrina		2	27		
161	Pollard, G.	Common	"		6	10	9	
162	Prentice, A.	Hemerville	Angledool	660	16	70	25	
163	Richards, T.	Tipley	Brewarrina	9,075	4		1,528	
164	Roberts, Elizabeth	Glenogie	Angledool	10,240	12	30	3,500	8
165	Ryan, J.	Wycheproof	Brewarrina	10,240	30		800	
166	Ryan, E.	Rosehill	"	10,240	26	32	3,159	
167	Ridley, D.	Merriman Run	"		6	7		
168	Read, E.	Common	Goodooga	5,000	2			
169	Rooney, J.		Brewarrina		4			
170	Robertson, J. M.	Malcomliddy	"	160	30			
171	Ryan, M.	Booksville	"	10,240	8	7		
172	Robins, C. H.	Common	"		2			
173	Richards, T., junr.	"	"		8	25		
174	Rogers, W. H.	"	"		9		6	
175	Rouse, Z. H.	"	Goodooga		12	11	13	
176	Staggs, H.	Urie Parial	Brewarrina	30,000	14	24	10,160	
177	Smyth, E.	Cawwell	"	8,023	7	6	2,400	1
178	Saunders, A. T.	Gidgea	"	8,217	15	10	3,020	
179	Staggs, I.	Pebblebank	"	10,240	9	40	2,941	
180	Staggs, J.	Boree	"	10,240	7	50	2,215	
181	Staggs, E.	Pinegrove	"	10,240	7	6	3,500	
182	Sawers and Wilson	Bundabulla	"	84,668	138	95	43,300	
183	Saunders, E. J.	Biree View	"	5,700	21	40	984	
184	Smith, R.	Warracknabeal	"	23,040	55	30	7,985	
185	Sherwin, T. & Co.	Mullawa	Angledool	58,000	130	550	18,267	
186	Sullivan, A.	Williebingbone	Brewarrina	15,600	26	10	4,000	
187	Sullivan, J. J.	Cowga	"	13,051	13	10	2,089	
188	Sullivan, P.	Billiebingbone	"	15,910	2		3,000	
189	Shadforth, R. J. M.	Yolands	"	2,559			1,103	
190	Sullivan, Catherine	East Bogan	"	30,014	5		7,151	
191	Spencer, H. J.	Retreat Paddock	"	640	17			13
192	Stevenson Bros.	Angledool	Angledool	1,250	42	30		9
193	Stevens, J.	Glendon Run	Goodooga		19			
194	Samuel, R.	Common	"		3	1		
195	Simpson, D. A.	"	"		4	4		
196	Sunderland, J.	Mulbane	Brewarrina	1,135	10	66		
197	Stephens, J.	Glendon Run	Goodooga		30	5		
198	Sowden, J. W.	Gilgoin Run	Brewarrina		10	18		
199	Sully, D.	Willawillingah Run	"		10			
200	Simpson, J.	Paisley	"	10,240	15	40	80	
201	Shaw, Mrs. C. A.	Maylands	"	10,240	36		160	
202	Sunderland, W.	South Bank	"	651	5	14		
203	Shearer, W.	Ypley	"	10,240	5		500	
204	Thompson, G. H.	Womble	"	2,560	14	10	2,100	
205	Tyrell (Exrs. of), Bishop	Brenda	Goodooga	42,720	103	250	10,070	
206	Tursh, R.	Hillsley Vale	Brewarrina	6,800	30	70	1,000	
207	Troy, Caroline	Common	Angledool			2		
208	Troy, C.	"	"		2			
209	Taylor, E.	Wilga Hill	Brewarrina	1,280	6	27		
210	Vanstone, W.	Chip's Folly	"	10,240	25	5	4,612	
211	Vandeleur, F. E.	Denman	Goodooga	14,000	50	70	7,047	
212	Woods, G.	Yambacoona	Brewarrina	24,000	30	20	7,945	2
213	Williams, W.	Maybrook	"	12,140	12	12	3,000	
214	Wood, Wild, & Caton	Ballaree	"	31,340	60	250	6,600	
215	Woolfrey, E. O.	Common	"		7	20	22	6
216	Wilson, J.	Midonna	"	2,560	30			
217	Willis, J.	Milloe	"	2,860	7	70		
218	Wong Ah	Common	Goodooga		9			
219	Wolstenholme, J.	"	"		2			
220	Winter, H. S.	"	Angledool				65	
221	Webster, J.	Moredun Run	Brewarrina		27			
222	Wolfrey, W. M.	Homestead Selection	"	1,173	4			
223	Yeomans Bros.	Gilgoin	"	100,000	95	120	51,000	
224	Young, S.	Langboyd	"	200	9	14		
225	Yeo, S.	Yarrowin Run	"		14			
				3,490,660	4,983	9,265	1,003,892	264

ALPHABETICAL List of Stockowners, with their Addresses, and Number of Stock in portion of the Sheep District of Walgett, for year 1896.

Names of Owners in alphabetical order.	Name of Run or Holding.	Nearest Post Town.	Acreage.	No. of Horses.	No. of Cattle.	No. of Sheep.
Bush, F.	Horseshoe Lagoon	Walgett	379	20	10	60
Langhman Brothers	Homebush	"	40,960	100	700	11,130
Mein, G. A. and P.	Boorooma	"	315,330	439	82	120,372
Howlett, T.	Stony Crossing	Boorooma		26	2	5,540
Pedley, A. D.	Morindah	Walgett	55,000	18	11	30,000
Simpson, J.	Moorlands	"		60	111	9,200
Total.....				663	916	176,302

I also hand in a map showing the driftways of stock in the district. Upon it the various travelling stock reserves are tinted green, and I have shown by brown lines the roads referred to in the returns I have read. 1199.

1199. Your returns show that within the area marked on the map there were held 5,760 horses, 10,577 cattle, 1,202,694 sheep, and 264 pigs? Yes. G. C. Yeo.
1200. Have you any information in your office as to the average clip from that district? I do not think so. 19 Oct., 1897.
1201. You do not know what full-woolled sheep average there? No.
1202. The stock in the district are held by 233 different owners? Yes.
1203. After examining the map submitted to you by the Committee, and which was prepared by a resident of the district, are you inclined to think that his ideas and yours in regard to the traffic of the district closely resemble each other? In what way.
1204. That the bulk of the stock passing through that part of the country travel through this district? Yes.
1205. There are not many crossing-places in this part of the country? The nearest crossing-place on the east of Brenda is Mungindi, and on the west Barrington.
1206. The driftways within the area shown on the map are very important, and that is why so many stock pass through the district? Well, I do not know that there are more stock passing through that district than pass through other districts. A great many stock pass through Barrington and Hungerford.
1207. But Brenda is the chief crossing-place between Barrington and Mungindi? It is the only crossing-place.
1208. These are the only crossing-places within the western district? Well, if you go further west there is Wompa.
1209. But Barrington is the crossing furthest west? Yes, of the three I have named.
1210. The Mungindi crossing is largely used by stock going to Moree? Yes.
1211. The Brenda crossing is largely used by stock going to Bourke and to Dubbo? Yes.
1212. *Mr. Wright.*] Are you aware that a great deal of the stock crossing at Brenda goes to Bourke to be boiled down there? No, I am not.
1213. You are not aware that a great number of sheep go to Bourke to be boiled down? No, though my returns show that a great many sheep go to Bourke from Brenda.
1214. Are you aware that the bulk of those sheep go to Bourke, not to be trucked, but to be boiled down, or otherwise dealt with at the local meat-works;—stock coming from the Narran country to the meat-works at Bourke would come to Bourke whether the railway were constructed or not? Yes.
1215. Can you tell us the total number of sheep sent to Bourke during 1896? No; but I will get you the information.
1216. Would you also get us the same information in regard to Nyngan, and in regard to Byrock? Yes.
1217. Are the returns which you have placed before the Committee copies of the sworn returns sent in by the pastoralists? They have been compiled from the returns made under the Pastures and Stock Act.
1218. A stockholder has to send in a return if he only owns four or five head? If he only owns a single beast.
1219. Therefore your returns would give us the actual number of stock in the district? Yes.

WEDNESDAY, 20 OCTOBER, 1897.

Present:—

THE HONORABLE FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and further examined:—

1220. *Vice-Chairman.*] You have seen the map handed in by Mr. Sawers on which is marked the area from which he thinks produce would come to the Brewarrina line? Yes. J. Harper.
1221. You have also seen a list of the stations within that area? Yes. 20 Oct., 1897.
1222. Are you of opinion that the wool and live stock from all the stations mentioned in the list would be sent by way of Brewarrina? With the exception of two or three, which I think will always send to Girilambone.
1223. Which are they? A few holdings in the south-east corner of the area marked on the map, namely, Burren, Brigalow, Ballaree, and Calga.
1224. Have you information as to the number of sheep upon those stations? No; but I can tell you approximately the number of bales of wool sent from them.
1225. How much wool would be sent from those places? 1,000 bales—about 200 tons.
1226. Then, with the exception of 1,000 bales, all the wool from the area marked on plan 2 would reach Brewarrina? It would reach Brewarrina. I do not say that it would come from Brewarrina by rail. It would either reach Brewarrina or it would come to some point on the line between Byrock and Brewarrina.
1227. Will you give us a detailed estimate of the quantity of wool that would probably be received from the area shown on Mr. Sawer's map, excluding the stations which you have mentioned? In the estimate which is now before the Committee I have included practically every one of the stations within that area. I have given the quantity of wool coming from places between Byrock and Brewarrina, and going up stream towards Walgett. The wool traffic from all this area I estimate at 3,400 tons.
1228. Are you dealing now with the area shown on plan 2? Yes.

1229.

J. Harper. 1229. Will you give us the details of that wool traffic? I will give you the figures for the year 1893-94, relating to the traffic from Brewarrina, Goodooga and district, and then I will give you the traffic from Walgett and district:—

Abydos	94 bales.	T.B. over Willot	187 bales.
Coolaburra	95 "	Wirrah Warrah	90 "
M.R. over Brewarrina	40 "	Walkharra	295 "
J.M. over Cato	208 "	D. over D.D. and Warrawin... ..	1,170 "
Guisely	301 "	Yambacoona and G.W.G.	104 "
Gnomery	872 "	R.V.R. over Yurcurrie and	
Gilgoin	523 "	Mapoga	"
L. Brothers over Homebush... ..	129 "	Small clips	853 "
TRS over Lipsley	48 "	By river	172 "
Lolleep	61 "	Ballandool and Dumble	1,117 "
Milroy... ..	1,422 "	Bunna	129 "
Morrabilla	98 "	Brenda	1,421 "
Muckerawa	364 "	Bundebulla and Bokhara	861 "
Mogilla	184 "	Bogundra and R.C.B.	154 "
Nullawa	548 "	Chip's Folly	116 "
H.Z. over Oakleigh	180 "	Coobiendfa	135 "
Quantambone	1,150 "	Cuttabundya, Coobung, and	
Robb & Co. over Talawanta... ..	1,057 "	W.E. over Narran	138 "
R.A.L. over Tarrion	663 "	Denman	142 "
W.N.W. over Tarrion	179 "	Weilmoringle... ..	1,429 "
Tarra... ..	181 "	Woolerina (Queensland)	960 "
Willawillingdah	107 "	Small clips	31 "

1230. *Mr. Wright.*] You have not included Boorooma in that list? I have included it in the Walgett district. It is included in my estimate of the traffic coming to Brewarrina; but I have distinguished between the Brewarrina and the Walgett portions of that traffic. These are the figures for Walgett and district:

Brewan	35 bales.	Llanillo	967 bales.
Boorooma, Brina, and Mein		Milroy... ..	433 "
over Narran	1,955 "	Moorabie	347 "
Barwon Vale	130 "	Moorlands	186 "
Bell Brothers, Flemington, and		Mayfield and Myhan... ..	63 "
J.D. over J.B.	168 "	Piangobla	168 "
Craigmore	169 "	Ulumbie	256 "
Dungalear	1,500 "	Eulah	249 "
Euroka	654 "	White Wood	115 "
Gingie... ..	1,650 "	Small clips	225 "

From Tarcoom and district—that is, the intermediate district between Brewarrina and Byrock—we got:
Charlton 522 bales. Tarcoom 209 bales.

Altogether, we received 1,253 bales at Byrock and 26,449 bales at Bourke.

1231. *Vice-Chairman.*] I make the total 27,702 bales? Yes; that is about it.

1232. *Mr. Lee.*] Those figures include the Walgett district? Yes.

1233. *Vice-Chairman.*] What portion of that wool do you say would reach Brewarrina, supposing the proposed railway were constructed? Do you put aside all other considerations? I have received notice to attend here later on, to give evidence upon the proposed railway from Narrabri to Pilliga.

1234. I think that you had better explain that in the event of other lines being constructed, deductions will have to be made? Yes; in the event of a railway being made to Walgett or to Collarendabri the traffic to the proposed railway would be considerably affected.

1235. But supposing no other line were constructed, this traffic would probably go by way of the proposed line? No. It might reach Brewarrina; but I am not prepared to say that it would go over the Byrock to Brewarrina line.

1236. Not any portion of it? I daresay part of it would.

1237. I want you to make a distinction? I cannot do that. I cannot say what the river competition will be.

1238. Then how did you arrive at your estimate? I have obtained the figures for the traffic from the district; but I leave it to the Committee to consider what are the probabilities of that traffic coming by river to Bourke, or finding its way on to the railway at Brewarrina.

1239. How many tons of traffic would 27,000 bales of wool give? The year for which I have given you the figures was an exceptionally good one—in fact, the best year we have had. Roughly speaking, that number of bales would represent about 4,000 tons. The average traffic for the four years 1893 to 1897, taking the same clips, has been 3,422 tons. Of course, there is some scoured wool among this.

1240. How many tons do you estimate will reach the Brewarrina railway? I estimate that 3,100 tons will reach Brewarrina, and that 330 tons will join it at intermediate points, or 3,430 tons altogether.

1241. You say that, assuming that the whole of the wool from the stations you have named reached the railway at Brewarrina, the tonnage would not be greater than that for which you have allowed in your estimate? That is so. I am absolutely clear upon the point.

1242. Have you estimated in the same way the number of live-stock that would probably come to the railway? No; but I have taken out the actual number of live-stock trucked at Bourke and at Byrock.

1243. Have you given us that information? Yes; but I will repeat it. In the year 1893-4 there were 235 trucks; in the year 1894-5, 319; in the year 1895-6, 634; and in the year 1896-7, 862 trucks—an average of 512 trucks per annum.

1244. Coming from those stations? From the area marked on Mr. Sawyer's map [*plan 2*], as taken from our books at Byrock and at Bourke.

1245. For how many truck loads have you given credit in your estimate? For 1,000—practically double the average number sent at present, 1246.

J. Harper.
20 Oct., 1897.

1246. *Mr. Wright.*] I suppose the returns regarding the number of bales of wool sent from the district are taken from the railway books at Byrock and at Bourke? Yes.
1247. Piangobla is not within the area marked on Mr. Sawers' map? No.
1248. Neither is Llanillo? No.
1249. Nor Euroka? I think Euroka is.
1250. Gingie is also outside that area? Well, the estimate is a most liberal one. It practically includes all the wool coming in to either Walgett or Brewarrina.
1251. Boorooma wool would go to Brewarrina? I think it would go to Walgett if the railway were taken to Walgett. We have to face that possibility. I have included it within the Brewarrina traffic; but I must keep my eyes open to the fact that I shall very shortly be examined by the Committee in regard to another railway proposal.
1252. Is the wool from Compton Downs included in your list? No; it is a question whether that wool would come. The clip is only a small one, and would probably go down to Girilambone.
1253. Have you included Collawaroy? That wool must have gone to Girilambone in the year I quoted—1893-4. In the year 1895-6 we got 134 bales from that station.
1254. Do you include Brenda in the Walgett list or in the Brewarrina list? In the Brewarrina list.
1255. And Dumble also in the Brewarrina list? Yes.
1256. I suppose it is owing to the difficulty of identifying these places that you have given us the names of some stations outside the area marked on Mr. Sawers' map, and have not given us the names of others inside that area? There are one or two inside the area which I have omitted. For instance, there is Ballaree, which is a cattle station, and there are the others which I named.
1257. What wool comes from Gingie, Euroka, and Llanillo? 3,271 bales, or about 500 tons.
1258. How did you get your stock returns? They were taken from the live stock contract-book, and every consignment was identified.
1259. You have given the number of stock trucked to Sydney from this district? Yes.
1260. Both from Bourke and from Byrock? Yes; every entry in the live-stock book for these years has been gone through, and each consignment identified.
1261. A great deal of stock has gone from the Narran district to be trucked at Bourke? At Bourke there were trucked in the year 1893-94, 71 truck-loads; in the year 1894-95, 13 truck-loads; in the year 1895-96, 224 truck-loads; and in the year 1896-97, 102 truck-loads. From Byrock were sent in the year 1893-94, 164 truck-loads; in the year 1894-95, 306 truck-loads; in 1895-96, 410 truck-loads; and in 1896-97, 760 truck-loads.
1262. Taking the best years of each place, it only gives a little over 1,000 truck-loads? Yes; but that is taking one year for Bourke and another for Byrock.
1263. Do you know what number of stock is trucked lower down the line? I do not; but, as a matter of fact, some of the stock trucked at Byrock travelled down from Bourke. A great deal of the stock that is trucked at Byrock comes from Bourke. It travels parallel with the line down to Byrock.
1264. Is not a great deal of stock consumed at the Bourke boiling-down works? A great many have been in past years. Lately, very little has been done there.
1265. So that a considerable number of stock have gone there to be treated locally? Yes.
1266. That would decrease the number of stock to be carried by rail? Yes.
1267. A witness who represents a small firm in the city has told us that in nine months he has received nearly 500 truck-loads of stock from Byrock alone, and he estimates that his business affects between 25 and 30 per cent. of the stock trucked from that district? He may have had that quantity of stock from Byrock; but it does not follow that it came from Brewarrina way. We frequently have sheep travelling along the railway, while they are waiting for a market.
1268. He was of opinion that this stock came from the country about Brewarrina and north of that place? I cannot say where it came from; but I have taken my figures from the signed contract-books of the Department.
1269. You give the wool traffic of the proposed line as 3,430 tons? Allowing $5\frac{1}{2}$ bales to the ton, that would represent about 18,000 bales.
1270. In your evidence you say that during 1893-4, 18,000 bales were carried, and of that quantity 13,000 bales were taken by the river. Now, you submit an estimate showing the wool traffic from the district to be 27,000 bales? Yes; but this latter return is for the very best seasons we have ever had. The average traffic for four years was 22,000 bales.
1271. That would be 4,000 bales more than you previously estimated;—have you looked over Mr. Sawer's evidence? I have glanced through it.
1272. In making your calculations have you remembered that possibly all this traffic may not be secured by the proposed line if it is constructed? I have allowed for everything likely to be carried on the line. In regard to the goods tonnage, there was nearly double the usual tonnage carried during the years 1893-4 and 1894-5, because of the great quantity of wire-netting that was being sent to Queensland.
1273. But having consulted the railway books, you wish us to understand that inasmuch as nearly the whole of this traffic comes to the railway at Bourke, your figures are as reliable as they can be? Yes; I knew that adverse statements had been made, and, therefore, I had my figures checked and brought up to date. Every reliable source of information was exhausted in obtaining them.
1274. *Mr. Hoskins.*] Do you know what is the average charge for conveying wool by river between Brewarrina and Bourke? That is a rather serious question. I do not want to give the carriers away. The Committee can understand the delicate position in which they may be. It may suit them to carry more cheaply for one man than for another, and I am sure that honorable Members do not want me to give them information in regard to other people's business. I can say, however, that things have been carried for 12s. 6d. a ton.
1275. We have had it stated in evidence that the usual charge is 25s. a ton, and a witness has told us that he can send by team from Brewarrina to Bourke as cheaply as by steamer, and that he would rather send by team? Well, he may have been able to make a good bargain with the teamsters, while the boat proprietor may have wanted to make a good bargain with him. In collecting my information, I am, to a certain extent, taken into confidence by business firms, and it would be the last thing the Committee would wish that I should give them information which I had obtained in this way.

J. Harper. 1276. We have been given to understand that the river would prove a formidable competitor with any railway, and, on the other hand, we are told that the average charge upon the river is 25s. a ton. If the river rates were only £1 a ton the railway ought to be able to compete? Yes; I would point out to the Committee, however, that before the railway was taken to Hay the rate through to Melbourne was £7 a ton, and of that amount the steamer companies got £5 a ton. Now they are glad if they get £1 a ton. There is not the least doubt that if the proposed railway were constructed, the same thing would occur between Bourke and Brewarrina. In my report to the Railway Commissioners, I said:—

Under the circumstances of an ordinary river, which has up to the present remained unimproved by snagging operations or otherwise, the rates between Brewarrina and Bourke have varied between 12s. 6d. and 20s. per ton.

1277. *Mr. Lee.*] In what year was that report written? In the year 1895.

1278. *Mr. Hoskins.*] The Murrumbidgee was a very different river from the Upper Darling? Yes; but you can see how the construction of the railway affected the steamer rates on the Murrumbidgee, and I would be the same on the Darling. Since my report was written, the river has been improved to a certain extent by the construction of a weir below Bourke, and I am in a position to inform the Committee that docks are to be built at Bourke. A crane and a wharf are to be provided there, and, in all probability, the railway will, in a very short time, be extended to the river side. The existence of docks in Bourke will make a great deal of difference to the steamers. Now they have to go down to Adelaide every year to be overhauled for insurance purposes; but when the docks are finished they can be overhauled at Bourke. There is another phase of the question: If the river were navigable from Walgett, wool put on board a steamer at Walgett would not stop at Brewarrina; it would go right down to Bourke.

1279. If the proposed railway were constructed, I suppose the charge for goods sent over it would be about 10s. a ton? I have put down 10s. a ton; but that is an arbitrary rate, based on a charge of 2d. a ton per mile.

1280. How far is it by river from Brewarrina to Bourke? About 119 miles, as the river people measure it.

1281. *Mr. Lee.*] I have in my hand a return submitted by the Stock Department, showing the number of sheep carried on the holdings within the area marked on Mr. Sawers' map—the number of sheep within that area is 1,003,892;—can you estimate the wool clip from a certain number of sheep? Generally speaking, it is regarded as a fair thing if you get fifteen bales of wool from 1,000 sheep. There are very many districts in the Colony where they do not get as much. The figures I have given, however, are absolutely correct.

1282. Your estimate of the wool traffic on the proposed line is 3,430 tons—Mr. Sawyer's estimate is 4,750 tons? I should like Mr. Sawers' estimate to be correct.

1283. But you think it is too high an estimate? I think so; compared with the traffic that we do now.

1284. Do you think it ever will be realised? Well, we have not had as much as that even in the best year; we have only got a little over 4,000 tons.

1285. Mr. Sawers estimates the goods traffic up stream from Bourke to Brewarrina at 2,450 tons;—you allow nothing for probable traffic of that kind? I allow 2,000 tons.

1286. That is the tonnage which now goes up stream to Brewarrina, but which, if the proposed railway were made, would go by rail? Yes. The average goods traffic for the four years I have mentioned was 2,892 tons, but those years included two years in which between 2,000 and 3,000 tons of wire-netting were carried under special circumstances.

1287. You estimate the live-stock traffic at 1,000 truck-loads, while Mr. Sawers estimates it at 3,000 truck-loads? We cannot get away from the solid facts before us. I am not going to say that the traffic might not grow to 3,000 truck-loads; but I cannot deal with possibilities of that kind.

1288. How many sheep would 3,000 truck-loads represent? About 300,000, which would be about 33 per cent. of the stock of the whole district. That would be a very heavy draft of fat sheep.

1289. You think that Mr. Sawers' estimate cannot be realised? I do not say that it cannot be realised; I simply lay the facts before the Committee as I find them.

1290. Do you think it will be realised? I am very doubtful about it.

1291. The estimate that seems to me very doubtful is the estimate of passenger traffic—1,500 passengers a year? Yes; about ten a day.

1292. Five passengers each way? Yes.

1293. That would be only thirty a week? Yes; I think the estimate is about correct.

1294. Do you not think it too small for so long a line? I do not.

1295. During 1896 some 2,000 tickets were issued at Byrock? Yes; but probably most of them were issued to the next platform. Besides, Byrock issues tickets from all the platforms between it and Bourke.

1296. But only half of that traffic would give 1,000 tickets? Well, I allow 1,500 passengers at a full fare each. I do not say that there will not be more than 1,500 passengers travelling between intermediate stations. I only give credit for through travelling. If you doubled my estimate the return from passenger traffic would not be very much. There is absolutely no settlement between Byrock and Brewarrina.

1297. Would not the railway induce a larger number of the Brewarrina people to travel? Well, if they all took two or three journeys a year it would not increase the estimate very much.

1298. You see no reason to doubt your figures? No.

1299. If the passenger traffic has been estimated at 6,000 people, do you think the estimate is likely to be realised? I do not.

1300. You estimate the traffic from the proposed line at £3,691 15s., supposing the traffic arriving at Brewarrina for and from Walgett and above stream were excluded? Yes.

1301. At present that traffic comes to Brewarrina? It comes to Bourke, and I am not going to say that it would not come to Bourke if the proposed railway were constructed.

1302. You have already said that in your opinion goods put on board the steamers above Brewarrina would go down to Bourke? Yes.

1303. Why? Because it would be in the interests of the steamship owners to quote reduced through rates. It is the loading and unloading that costs the greater part of the freight. The towing down stream costs comparatively little, and very little time is consumed in the work.

1304. How often is the river navigable from Walgett to Bourke? During the year 1893-4 it was closed for twenty-eight days; during the year 1894-5, for eighty-three days; during the year 1895-6, for 311 days; and I have no returns for 1896-7. The returns show that it is open about half the year on an average.

1305. The river was closed during nearly the whole of 1896? Yes; and probably it will be open all next year. J. Harper.
1306. When the river was closed, to what point on the railway was the wool sent? In 1896 over 10,000 bales of wool came to Bourke from Brewarrina, Goodooga and district. Only seventeen bales came from Walgett and district. Nearly all of the Walgett wool came to Narrabri. Whenever there is no river, the Walgett wool generally goes to Narrabri. During 1896, 2,687 bales came to Byrock. Even in 1896 we managed to send some of the wool down the river, 2,400 bales coming that way. 20 Oct., 1897.
1307. That is very much below your estimate? Yes; but that was the year of the drought.
1308. Is it the usual practice, when there is no river, for the up-stream clips to find their way across to Narrabri? Yes; though a number of circumstances control the destination of the wool.
1309. Do you know whether the river is open, as a rule, during the wool season? Yes; it is during the season. It generally comes down in the early part of the year during the wool season. At all events, it has done so very often.
1310. When the river is not navigable owners must send by dray? Yes.
1311. Since you were here last have you further considered the question that was put to you as to whether the construction of a line out towards Brewarrina would attract traffic which our railways do not at present get? I cannot say that I have thought of it since then, because I have thought of it so frequently before. During the last three or four years we have never left off thinking about how to get the Queensland trade. If it is found that the £2 10s. a ton duty is not enough to keep the wool from coming this way, the Queensland people are prepared to charge a higher duty.
1312. You lose no traffic in that district? No.
1313. The trouble is that you do not attract traffic from the neighbouring colonies? Yes; traffic which has always been ours, and which would be ours now if the duty were taken off.
1314. Do you know if the Queensland people are pushing out their lines? Yes; they are pushing on to Cunnamulla, and they are talking of going to St. George.
1315. Do you think that they will attract traffic from our side of the border? I do not think so, though they would like to get the wool taken to Brisbane, and then sent down to Sydney for sale.
1316. If the Queensland people push their lines out close to our border, and we stop where we are, will we not have to face a ruinous competition, such as we have to meet on the southern border? Well, they cannot make any further allowance; they cannot go any lower. I think we shall be able to look after our trade.
1317. Only by a reduction of rates? Well, this is not a line which will affect the matter about which you are speaking. I think, however, that if action had been taken four or five years ago the line to Cunnamulla would probably never have been built.
1318. Is what has happened on our southern border likely to happen in this district? I do not think so.
1319. We slept rather long in regard to the southern trade;—is it possible to avoid a recurrence of what has taken place down south? I do not think that the same thing is likely to occur again.
1320. Cannot it be avoided by judicious railway extension? Even if to-morrow we pushed our lines to the Queensland border, going through Brewarrina, or from Bourke to Barrington, we should be met at the border with an absolutely prohibitive tax to prevent the export of wool from Queensland. They do not make any secret about it in Queensland. They say that if a tax of £2 10s. a ton will not stop the wool from coming this way, a tax of £5 a ton will. They have the courage of their policy over there.
1321. *Mr. Hoskins.*] They do not prevent some of the wool from coming to Moree? The Australian Pastoral Company's wool comes to Moree; but that is the only Queensland clip of importance.
1322. *Mr. Clarke.*] There appears to be a great discrepancy between Mr. Sawers' estimates and yours;—you adhere to your original statements? Yes, decidedly.
1323. How do you get your returns—from the books at the various trucking places? Yes.
1324. Then they must be pretty correct? They are absolutely correct. We have been paid freight upon these statements.

THURSDAY, 21 OCTOBER, 1897.

Present:—

THE HONORABLE FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).	
The Hon. JAMES HOSKINS. The Hon. WILLIAM JOSEPH TRICKETT. HENRY CLARKE, Esq.	CHARLES ALFRED LEE, Esq. FRANCIS AUGUSTUS WRIGHT, Esq. FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

John Simpson, leaseholder, Narran Creek, sworn, and examined:—

1325. *Mr. Hoskins.*] Is your holding situated between Byrock and Brewarrina, or is it beyond Brewarrina? It is about 45 miles beyond Brewarrina, in a north-easterly direction. J. Simpson.
1326. Is it anywhere near the Narran Lakes? Yes, it is close to them. 21 Oct., 1897
1327. Do you depasture sheep or cattle? Sheep.
1328. Where do you send your wool? To Byrock.
1329. And thence to Sydney? Yes.
1330. Do you sell your sheep as fat stock or as stores? As fat stock. This time last year I sent 2,500 fat sheep to be trucked at Byrock.
1331. You nearly always send your sheep to Sydney? We always send them to the Sydney market.
1332. How far is your place from Bourke? About 130 miles.
1333. How far is it from Byrock? About 110 miles by the road we have to go.
1334. Do you ever send any of your wool to Bourke? No; we always send it to Byrock.
1335. Then you do not use the river? Not now. When I was manager of Boorooma I used to use the river.
1336. How far was Boorooma from the river? Boorooma is alongside the river. We used to shear on the banks of the river.

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- J. Simpson. 1337. What did you pay to send wool from Boorooma to Bourke by steamer? It depended upon the condition of the river. When it was necessary to trans-ship at Brewarrina we paid 50s. a ton. When we could go right through, we paid 30s. a ton.
- 21 Oct., 1897. 1338. Boorooma is above Brewarrina? Yes; it is 42 miles on the Walgett side of Brewarrina.
1339. Was 30s. a ton the usual price for conveying wool from Boorooma to Bourke when the river was navigable right through? I never paid less.
1340. What was the average charge when the river was high? Thirty shillings a ton from Boorooma. I was manager on Boorooma for seventeen years.
1341. *Mr. Wright.*] Boorooma is practically half-way between Brewarrina and Walgett? Yes; we call it half-way.
1342. *Mr. Hoskins.*] Is the number of steamers plying between Bourke and Walgett increasing? I do not think so. During the last three years they have not been able to run for more than about two months in the year. Most of the wool was carted last year.
1343. Where to? A great deal of it went to Byrock.
1344. And some to Bourke? Yes.
1345. I suppose Bourke is the centre for all kinds of business on the Upper Darling, for the reception of merchandise and produce, and despatch of goods? As a rule, we do not deal much with Bourke we deal with Brewarrina.
1346. Do the storekeepers at Brewarrina get most of their merchandise from Bourke, or do they get it from Byrock? I am not in a position to say.
1347. Do you think that if the proposed railway were constructed, the people would prefer to use it, instead of using the river, supposing the river were navigable? Yes; I should prefer to do so.
1348. Is it not a fact that squatters prefer to send their produce by the cheapest route, which is generally the water route? Well, the river is most unreliable. It is very likely to be down at the time that you want to get your wool away. If the proposed railway were made, you would always be certain of getting your wool away from Brewarrina without any trouble. I send my wool to Byrock.
1349. What do you pay a ton? £3.
1350. What is the average charge for carting from Brewarrina to Bourke? I do not know. The charge from Brewarrina to Byrock is £1 a ton.
1351. If the proposed railway were constructed, the probability is that the Department would carry wool from Brewarrina to Byrock for 10s. a ton;—do you think that that rate would be sufficiently low to prevent the wool being taken by steamer? I should think so. I should be only too glad to avail myself of the opportunity of using the railway. I think that it would be a great boon to our district.
1352. Do you think it would be to the interest of the residents of the district to have the proposed railway constructed? I feel certain that it would. The proposed line would draw trade from the Queensland border, which now goes elsewhere.
1353. Does the trade from the Queensland border now go to Bourke or to Brewarrina? I believe that if the railway were constructed to Brewarrina, it would attract trade that now goes elsewhere.
1354. How far is Brewarrina from the Queensland border? Seventy-six miles I believe.
1355. The country between Byrock and Brewarrina, and from there on to where you live, is all pastoral country? It is very good grazing country. There is no better country in the western district.
1356. There is no other pursuit followed there? No, not extensively.
1357. The business of conveying stores to a pastoral district and bringing away produce is conducted within five or six months of the year? Yes, mostly.
1358. Then if the proposed railway were constructed, for half the year it would have very little to do? It would have fat stock to carry, and there would be the passenger traffic.
1359. The passenger traffic would be very small indeed? The railway would create a lot of passenger traffic which does not exist at the present time.
1360. Is there a coach running between Byrock and Brewarrina now? Yes, five times a week.
1361. *Mr. Wright.*] What have you had to pay for cartage from Boorooma to Brewarrina? We usually paid 25s. a ton.
1362. If you paid 25s. a ton to Brewarrina, and 15s. a ton on the proposed railway, it would cost you £2 a ton to get to Byrock, whereas you say that when there was a good river you used to be able to get to Bourke for 30s. a ton? Yes; but it very seldom happens that there is a good river at the right time. The river is very uncertain.
1363. If you were managing Boorooma, and you could get your wool taken to Bourke by steamer for 10s. less than it would cost you to send it by rail, which way would you send it? No doubt I should send it by the cheaper route; but you have not a good river every year.
1364. Have you much knowledge of the trade of Brewarrina? No.
1365. Can you give us any approximate idea of the quantity of wool coming from the district of which Brewarrina is the depôt, including the wool coming through from the north, and from the Narran country? I could not give you anything beyond Boorooma.
1366. Do you think the wool from that district would amount to 20,000 bales? I think it would be more than that. The average clip at Boorooma during twelve years was 1,500 bales.
1367. You think that more than 20,000 bales would come from Brewarrina? Yes.
1368. Would there be 25,000 bales coming from there? I should think that there would be fully that number. It is a very rich pastoral district, and heavy carrying country. It is all good country. There is none of it bad.
1369. You spoke about the possibility of Queensland traffic being attracted to the proposed railway; are you aware that in Queensland there is an export duty upon wool of £2 10s. a ton? I was not aware.
1370. As long as that duty is in existence there will not be much wool coming from Queensland? If it were removed—for instance, as a result of Federation—the wool would come into New South Wales, and would increase the traffic of the proposed railway. It is all rich pastoral country up the Narran, and the Balooone.
1371. Are you aware that the Queensland Government are thinking of extending their railways to St. George and to Cunnamulla? Well, that would affect the traffic to some extent. Of course, the wool will go to the nearest railway.
1372. If the Queensland railway were extended to St. George, you could not expect to get much wool from Queensland? No; but the Sydney market is the best market we have for wool. 1373.

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1373. Do you think that the port, from which the wool is shipped, has an effect upon its price in the London market? At one time it had.
1374. In the event of the Government determining to construct a railway to Walgett, what effect would that have upon the possible traffic of the proposed line? I do not think it would interfere with it very much.
1375. Would it interfere with the Narran country? I do not think so, unless it were pretty far up.
1376. Would it affect Brenda? No.
1377. The distance from Walgett to Newcastle would be much less than the distance from Brewarrina to Sydney, and the freight might be less;—what effect would that fact have upon the clip of the district? Fifteen years back I could get wool taken to Newcastle at £9 a ton; but I preferred to give £10 a ton to let it go the other way.
1378. Wool would come more expeditiously to market if it came down the Western line? Yes; they have better means of getting it to market that way.
1379. What effect do you think the construction of a railway to Walgett from either Coonamble or Narrabri would have upon stations like Boorooma? If there were no river Boorooma wool would still come to Brewarrina.
1380. You cannot speak about the other stations up there? No; but I suppose they would avail themselves of the nearest railway.
1381. From your general knowledge of the district and its requirements, do you think that the proposed railway would pay? Yes.
1382. If the Committee have been informed by competent authorities that the tonnage coming into Byrock and district is about 2,000 tons per annum, do you doubt the correctness of the statement? I should not like to give an opinion about it.
1383. You are not in a position to contradict it? No.
1384. Still, having lived in the district so long, you should be able to form a rough idea of the consumption of a number of the stations there? In some years, when we were making improvements, we consumed 50 tons of stuff.
1385. All kinds of stuff? Wire-netting, and general requisites for station use.
1386. What quantity of stuff would a station like Boorooma require, including general supplies, wool-packs, and wire-netting? I have never gone into figures; but I know that at Boorooma we use a very large quantity of supplies. I remember getting 50 tons of wire and wire-netting.
1387. How many wool-packs alone would you use; the clip often amounts to 2,000 bales? We have clipped 3,000 bales.
1388. You would want 60 bales of wool-packs for 3,000 bales of wool? Yes.
1389. They would weigh about 15 tons? Yes. I should think the annual consumption of the station would be over 100 tons per annum.
1390. If one station in the district consumed 100 tons in a year, could you give a guess at the total consumption of the district? No.
1391. If there were twenty stations there the consumption would be 20,000 tons? Yes; but I am not prepared to say what the consumption really is.
1392. Do you know the district within the area bounded by a red line on plan 2? Yes.
1393. If it has been stated that the total export of wool in that district would be from 18,000 to 20,000 bales per annum, is that an under estimate? I think that the production of wool in that district would be fully 20,000 bales per annum. I would sooner say more than less.
1394. It is more likely, you think, to be over 20,000 bales than to be under that quantity? Yes.
1395. It has been said that wool has been taken from Brewarrina to Bourke for 12s. 6d. per ton? I never heard of so low a charge being made.
1396. What is the usual rate you have heard quoted between Brewarrina and Bourke? I have had no experience. I always send my own wool to Byrock.
1397. Do you think that wool has ever been taken from Brewarrina to Bourke for 12s. 6d. a ton? I do not think so.
1398. If the river were made permanently navigable, do you think wool could be carried at a profit from Brewarrina to Bourke for 10s. a ton? I do not. I do not think they could exist on that.
1399. You cannot give us any information as to the rates between Brewarrina and Bourke? No.
1400. What rates did you have to pay for sending stores from Bourke to Brewarrina by steamer? Well, I usually got my stores landed at Boorooma.
1401. That is only in recent years? I did that for the last ten years.
1402. You are not in a position to say what rates are paid by the storekeepers for carriage to Brewarrina? I am not.
1403. You say that the carriage between Brewarrina and Boorooma would be about 25s. a ton? From £1 to 25s. a ton.
1404. Have you had much stuff sent over that road? I have had my clips carted several times. When they were carted, they were carted to Byrock.
1405. What do you pay to send to Byrock? Fifty shillings a ton.
1406. If you could get your wool carried from Brewarrina to Byrock for 15s. a ton, it would pay you better to send it that way than direct to Byrock? Yes.
1407. Do you support the railway? Yes.
1408. *Mr. Trickett.*] Your holding is north of the Narran Lakes? A little north-east of the Narran Lakes. It is really situated in what is called the Walgett district; but we never send to Walgett; we send to Brewarrina.
1409. Is yours a very large holding? I and my sons hold 50,000 acres.
1410. What number of sheep do you carry? About 20,000 sheep.
1411. Is your run of about the average carrying capacity? Yes.
1412. It is a fair sample of the land in the district? Yes; the country there is all about the same.
1413. What is your experience as to the size of the holding that a man could live upon in that district? It depends upon the position he means to keep up. Homestead lessees can make a good living upon holdings of 10,240 acres.
1414. What is your experience of the people who have taken up homestead leases in the district? Nearly all of them are prosperous.

J. Simpson. 1415. It has been stated by a Government officer that there were 153 homestead leases in the district, and that it was currently reported that a large number of these were not occupied? That is not my experience.
21 Oct., 1897. 1416. This is the evidence we have had upon the subject:

There are 153 homestead lessees, but it is currently stated that a large number of these are not occupied by the lessees. This is to a certain extent verified by the fact that the last sworn stock return only indicated 118 holders of stock in the whole district. When I was at Brewarrina an impression prevailed amongst those who were candid enough to admit it that this number would continue to decrease.

That seems to imply that homestead leasing has been a failure? I do not think that it has been a failure.

1417. Have some of the homestead leases become merged in the larger holdings? I do not think so.

1418. Do you think that the people who have taken up these leases are still living upon them? All that I am acquainted with—and I know a good many—are doing so.

1419. How many? Fifty or sixty.

1420. All those homestead lessees are sticking to their holdings? Yes, I believe so.

1421. They are occupying the holdings which they have taken up? Yes.

1422. You have had considerable experience in sending stock to market? Yes.

1423. We have been told this:

During a good season owners are not anxious to join a railway at the nearest point. They frequently make the stock travel far longer distances parallel with the railway than the distance between Brewarrina and Byrock.

What do you say to evidence of that kind? I feel certain that all owners of stock would avail themselves of this railway. The track into Byrock is very bad for stock. There is no water, and no grass, between the Bogan and Byrock.

1424. What is the effect of driving fat stock long distances;—does it improve them? It knocks the fat off them. The further you drive them, no matter how careful you may be, the more they lose weight.

1425. Although there may be exceptional circumstances, what is the general practice of owners of stock;—do they truck at the nearest railway station? Yes, I think so in nearly every case now. In former times the stock might have been travelled more. We should be able to get stock into Brewarrina quite fresh; but if we took them further from there on to Byrock, there would be no water or grass, and they would get knocked about and all the fat taken off them.

1426. Although a little railway freight may be saved by driving stock, you think that more is lost by the deterioration of the animals? Yes; they lose condition and thus their market value depreciates.

1427. Do you know what it would cost to send in wool from a place like yours to Brewarrina by team? I suppose I would get my wool brought in for about £1 15s. a ton.

1428. If, in addition to that, you had to pay 15s. a ton to have it taken from Brewarrina to Byrock, you would save upon what it at present costs you to get to the railway? I should save 10s. a ton.

1429. The Commissioners have put down 10s. a ton for the conveyance of wool from Brewarrina to Byrock; but you could afford to pay 15s. a ton? I would rather pay 15s. a ton than send my wool down the river. There is always a great risk in sending by river, and the insurance rates are high.

1430. There is also the extra handling and carting? Yes. The reshipping tears the bales to pieces. It is much better for a man to send directly from the station to the trucks. The wool gets less knocked about in transit, and arrives in better condition.

1431. During a severe drought, how does the Brewarrina district compare with other parts of the Colony? I think very favourably.

1432. Is it likely to continue a large sheep-breeding district? I think so.

1433. *Mr. Lee.*] It is estimated that if the line is constructed there will be an annual loss of £4,000 a year upon it;—can you show us how that loss could be made up in the future? No, I am not in a position to do that.

1434. *Vice-Chairman.*] What is the nature of your holding? It is a leasehold.

1435. How many tons of wool do you send to Byrock in the course of a year? About 30 tons.

1436. And how many tons of goods do you get back? From 10 to 12 tons.

1437. What number of live stock do you annually send away? From 2,500 to 3,000 sheep.

1438. To Brewarrina? Through Brewarrina. They are trucked at Byrock.

1439. Do you agree with Mr. Sawers that the area enclosed within the red lines shown on his map would be served by the proposed railway to Brewarrina? Yes, I think that that area would be served by the proposed line.

1440. Are there any stations within that area which would send wool to Bourke or to Walgett, or to any railway station other than Brewarrina? I think that the wool from the whole of that area would come to Brewarrina.

William John Callaghan, storekeeper, Goodooga, sworn, and examined:—

W. J. Callaghan. 1441. *Mr. Trickett.*] In what direction does Goodooga lie from Brewarrina? It is north-east from Brewarrina.

1442. How many miles distant? Seventy-six miles.

21 Oct., 1897. 1443. Have you been there long? Since 1890.

1444. How do you get your supplies? Principally from Byrock or from Bourke. It all depends upon where the carriers are, and upon the state of the roads. Lately I have been getting my goods from Byrock, because the feed is good on that road; but generally I have got things from Bourke, there being a good agency there.

1445. You do not use the river at all? I get my goods carried from Bourke to Brewarrina by steamer when the river is navigable; but it is always a risk.

1446. What is the ordinary rate of carriage from Byrock to Goodooga? £3 a ton.

1447. What is the rate of carriage from Bourke to Goodooga, *via* Brewarrina? £3 a ton.

1448. Is it always the same? It very rarely varies. It depends upon the feed along the road. Sometimes it is as high as £5 a ton.

1449. Do you know the rate of carriage by river from Bourke to Brewarrina? Twenty-five shillings, and it costs £2 a ton to get things from Brewarrina to Goodooga, or £3 5s. a ton altogether.

1450. It has been stated that the rate of carriage on the river between Bourke and Brewarrina varies from 12s. 6d. a ton to 25s. a ton;—have you ever known the rates to be as low as 12s. 6d. a ton? No; not even if you took a steamer load, which would be about 90 tons.

1451.

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1451. When the river has been navigable for two or three seasons in succession have the rates ever been reduced to that extent? No.
1452. If there had been such a reduction, you would have heard of it, and would have got the benefit of it? Certainly.
1453. Then the statement was a mistake? Yes.
1454. I suppose all your transactions are outwards towards Goodooga? Yes. We cannot go over the border.
1455. You have had no experience in sending goods from Goodooga to Byrock? I have simply seen the wool go through.
1456. You are not a carrying agent? No.
1457. Your interest in the goods traffic is confined to getting up goods to your own store at Goodooga? Yes.
1458. Which do you think is the best route for you to take? The road from Byrock.
1459. Why? For one thing, it is better than the other road; but sometimes I cannot get things any other way. After heavy rainfall it sometimes takes three months to bring things from Bourke to Goodooga.
1460. Is the road bad between Brewarrina and Byrock? No; the road is good between Brewarrina and Byrock.
1461. Is the rest of the road fairly good, too? Yes.
1462. How does the road to Byrock compare with the road to Bourke? There is no comparison.
1463. Do you get goods from Queensland? No.
1464. What is your experience in regard to wool coming from Queensland into New South Wales? I think that wool would go to the nearest railway.
1465. Does much wool come into New South Wales from Queensland? The Queensland wool all goes Narrabri way. The country adjacent to us belongs to the Australian Pastoral Company. The Queensland Government have offered them special facilities; but they are so far from the railway that it would pay them, allowing for the rebates allowed to wool from Queensland, to pay the export duty and send their wool into New South Wales. There is a better market for wool in Sydney than elsewhere.
1466. If the railway were constructed to Brewarrina would that draw any of the wool traffic from Queensland? Yes, a considerable amount of it. There are three large stations close to the border the wool from which would, I know, come to Brewarrina if a railway were made. If wool can be carried from 12s. 6d. or 15s. a ton from Bourke to Brewarrina by rail, it is certain that it will come to Brewarrina.
1467. Where does that wool go now? To Brisbane.
1468. Do you think that if the proposed railway were constructed, it would pay better to send it to Brewarrina? Yes, there would be a margin of profit in favour of sending it to Brewarrina.
1469. That is, taking the duty into consideration? Yes.
1470. How far are the stations you speak of from the nearest Queensland railway? I think about 200 miles. Mitchell is the nearest railway station.
1471. How many miles journey would they save by going to Brewarrina? I do not know that they would save any great distance, but the carriage would be less. When they sent to Brisbane there would be carriage down from there.
1472. By sending to Brewarrina, it would only have one handling? Yes.
1473. Is that a great consideration? It would be.
1474. Is Goodooga a town of any size? No; it is only a small town.
1475. How many inhabitants does it contain? I suppose 200.
1476. Do you know what tonnage of wool would come from your locality to Brewarrina if the proposed railway were constructed? All the wool from there goes to Brewarrina now. Wool goes to Brewarrina from Goodooga, and from the Bokhara, the Birie, and the Culgoa country.
1477. Do you know to what extent this traffic would be increased if the proposed railway were constructed? I am not able to say.
1478. You have no data to go upon? No.
1479. With regard to the stations in our own Colony, do you know if there would be an increase in the quantity of wool produced, supposing that the proposed railway were constructed? I could hardly say.
1480. Mr. Sawers has told the Committee that all the traffic from the district enclosed within red lines on plan 2 would come to Brewarrina? That is the country I spoke about just now—the Birie, the Narran, and the Culgoa country.
1481. Do you think that that country would feed the proposed railway with wool and with stock? Yes; the roads are well grassed and well watered.
1482. How long does it take you to get up supplies? It all depends upon the state of the roads. In rainy seasons it takes three months.
1483. Where does the principal delay take place? Between Bourke and Goodooga.
1484. How many miles is it from Bourke to Goodooga by road? I suppose it is 140 miles.
1485. About the same as to Byrock? Yes.
1486. Have you often had as long a delay as three months in getting up goods? Yes, pretty well. In dry times, when they can travel quickly, it may take three weeks.
1487. How far is it from Brewarrina to your place? Seventy-six miles. The road is much better into Brewarrina. There is not the same network of creeks to cross, or as much swampy country.
1488. When your goods come that way do you have as much delay? No; it is all red-soil country around Byrock. They can travel there in almost any weather.
1489. Have you had any experience in connection with homestead leasing beyond Brewarrina and Goodooga? Yes.
1490. What is your experience in regard to the system? I think that all the steady and industrial lessees have made money.
1491. Do you know if many of the leases have been abandoned? They have not been abandoned, though some of them may have been sold to people wanting an investment. None of them have been thrown up.
1492. If the number of occupiers has decreased, it has not been because of their failure to make a living; but because they were able to get reasonable terms on parting with the land? Yes; in which case someone else takes their place. Lots of the men who have given up were, I think, single men, and they probably sold out to men having wives and families.

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1493. We have been informed that there are 153 homestead lessees in the district; but that the number of occupiers is decreasing;—is that your experience? No. The leases have increased in value every year since they were first taken up. There may be fewer original lessees; but the people who have purchased are residing upon the land.
1494. They are not all rapidly selling out to the larger holders? No; that is being done only in a few cases. I know three or four homestead lessees who have sold out; but they sold out on favourable terms.
1495. They probably sold to men who had families, and who were increasing their holdings? Yes.
1496. People are not clearing out of the district, because it is not profitable to hold land there? Certainly not.
1497. Are the people with whom you have business transactions fairly prosperous? Yes.
1498. Do they pay their way pretty well? Yes.
1499. Do you consider the district to be a prosperous one? Yes.
1500. A district eminently suitable for pastoral purposes? Yes.
1501. Do you agree with former witnesses that the Brewarrina district withstands drought as well as, or better than any other part of the Colony? Yes, as far as my knowledge of other parts of the Colony goes.
1502. In your trade relations, have you always dealt only with New South Wales? Yes, since I have been at Goodooga.
1503. *Mr. Clarke.*] How long have you been a resident of the district? Eleven years.
1504. I suppose you have a thorough knowledge of the country through which it is proposed to take the railway? Yes.
1505. Are goods generally taken more care of when they are being carried by railway than when they are being carried up a river by steamer? Yes.
1506. How is that? When goods are taken by a steamer they often have to be transhipped once or twice, and dragged up the steep banks of the river. I daresay we could afford to pay 5s. a ton more to have things carried by train. In sending things by river you take the risk of damage, and have high insurance rates to pay.
1507. If the charge by river were the same as the charge by rail, would you prefer to send by rail, and would you be ready to pay even a little more to avoid sending by river? I would not pay more; but I would be willing to pay the same.
1508. Is there a large passenger traffic from Byrock to Brewarrina? I cannot speak definitely about it. From Goodooga there are two lines of passenger coaches running, and the passengers average about thirteen a week.
1509. Would the passenger traffic increase if the proposed railway were made? Yes; we should then have a great command of the Queensland traffic. The wool from these stations now goes to Eulabah, or to the north-western railway. Of course, in any case this traffic would come to our railways; but owners prefer to send their wool by the quickest route.
1510. Are the roads in your district good? In dry times they are good; but in wet times they are very bad.
1511. Would it be expensive to make roads through the district? It would not be possible. There is no stone within 100 or 200 miles.
1512. I suppose the expense of making a road would be almost as great as the expense of making a railway? That I cannot say; but I should think so.
1513. Are you aware there would be a loss of about £4,300 per annum on the proposed line? I was not aware of it; but I know that when the question was first mooted, interest upon the cost of construction was guaranteed by certain people.
1514. I suppose the country is nearly all taken up by homestead lessees? Yes, whatever country has been available for settlement has been taken up. Of course, the pastoral leaseholds are the property of the Crown.
1515. If the proposed railway were made would there be any expense for compensation? None whatever. The land is all Crown land.
1516. Is this a purely grazing country? From Brewarrina to Goodooga it is; but between Byrock and the Bogan, the country is suitable for wheat-growing. Of course, it would want a certain amount of clearing.
1517. We have it in evidence that wheat has been grown not far from Byrock? Yes, and successfully grown.
1518. Will the production of wheat be likely to increase? Certainly, as settlement becomes thicker and the railway is extended. It would be of no use to grow wheat unless there were a provision for taking it away. One man has tried wheat-growing and has made money out of it. During the first year he planted 50 acres of wheat, and this year he has 300 acres.
1519. It is only in favourable seasons that wheat can be grown? Yes.
1520. In dry seasons it will not be possible to grow it? No. The district would then fare like any other drought-stricken district.
1521. Is the rainfall in the district sufficient for wheat-growing? I think so, in two seasons out of three. The yield of wheat is so good that it would more than compensate for any failure during one year.
1522. Does the rain come in at the right season for the growth of wheat and other cereals? Yes.
1523. When does it generally fall? It is generally falling from February to June.
1524. After what Mr. Deane has said, would you not require a larger rainfall before putting in the crops? I am not a sufficiently good farmer to be able to give you reliable information on the subject; but we get showers throughout the year which would be sufficient to freshen up the crops.
1525. Do you think that in favourable seasons a large quantity of wheat is likely to be grown? Yes.
1526. As far north as the Bogan? Yes. I do not think that any wheat could be grown beyond the Bogan.
1527. Is the country too dry? It is not too dry, but it would not be suitable for wheat-growing.
1528. You think that a good deal of wool would come to Brewarrina from Queensland if the proposed railway were made? Yes; from stations near the border.
1529. Would not the Queensland wool duty make it difficult for them to send their wool to Brewarrina? Yes; but if the railway charges from Brewarrina to Byrock are only 12s. 6d. or 15s. a ton, they would probably send to Brewarrina.

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1530. The competition between the Queensland and New South Wales railway authorities is very keen? Yes. Of course, if the Queensland people found that their wool was coming this way, they would still further reduce their rates.
1531. Are you aware that the railway authorities of this Colony make special arrangements in regard to Queensland wool? I know that a certain rebate is given, but I do not know how much.
1532. *Mr. Lee.*] Do you live near the Queensland border? Yes.
1533. How far from it? Six miles in a direct line, or 9 miles from the Custom House.
1534. Do you live on a road going into Queensland? Yes; on the main road from the Bokhara.
1535. Where does that road go to after it crosses the border? In one direction it goes to Cunnamulla, and in another to St. George.
1536. Do you know if much wool came from Queensland before the export duty was imposed? Yes. All the Woollerina wool came into New South Wales. The present clip will be, I suppose, about 1,500 bales.
1537. The export duty has completely prevented this traffic? I think the special reductions offered by the Queensland railways have done more than the export duties to keep the traffic from coming to New South Wales.
1538. What is the nature of the concessions you speak of? I do not know.
1539. Do you know if the Queensland Government has been making contracts for the conveyance of wool from the runs right to Brisbane? I am not aware.
1540. If the Queensland Government is in a position to offer very favourable terms to wool producers on the other side of the border, how would the proposed railway attract the traffic to Brewarrina? Well, Brewarrina would be very much nearer. When I spoke of the Queensland wool coming to Brewarrina, I was basing my opinion upon conversations which I have had with managers upon the Queensland side, who have spoken to me about the trouble of getting their wool away. They would like to see a railway made to either Brewarrina or Walgett, but to Brewarrina for choice.
1541. Brewarrina is 80 miles from the Queensland border;—how far is Cunnamulla? It is 180 miles from Goodooga.
1542. There is a railway station at Cunnamulla? Not yet. The line is in course of construction.
1543. When that railway is completed, will it not serve the stations on the border? No; Eulabah will still be their nearest point.
1544. The conditions which existed before Queensland extended her railways out into the interior are very different from the present conditions. The question is whether the railway to Cunnamulla will not attract wool that used to come to our railway? It may take some of the traffic; but it will not take traffic from the Goodooga side.
1545. When that line is made, it will be used to compete with our railway, and to secure trade which Queensland never got before? Yes.
1546. Can we reasonably expect any large quantity of wool or stock from Queensland in the future? Yes, I think so; because we have the better market. The conditions being equal, the stock and wool would come this way.
1547. Stock coming to New South Wales have a choice of roads. They can go to Byrock, to Brewarrina, to Dubbo, or across to Narrabri. As a matter of fact, it would not cost much more to drive stock to Bourke than to drive to Brewarrina? No; but there would be the loss in condition.
1548. If people are able to send their wool by train to Brisbane, and thence to Sydney, in less time than it takes to carry it by team to Brewarrina, and thence by train to Sydney, will they not send to Brisbane? That is only natural.
1549. The present rate for wool from Brewarrina to Byrock is about 25s. a ton? I do not know.
1550. You know that it is proposed to charge 10s. a ton upon the Brewarrina railway? Yes; that would give a saving of 10s. a ton on wool coming from Goodooga.
1551. But that would be the only saving? Yes; but the people out there do not want that saving. I am sure that they would be content to pay £1 a ton to have their wool sent by rail from Brewarrina to Byrock. They would then be paying no more than they pay now, and they would get their wool carried much more quickly.
1552. Could the nearest stations on the Queensland side send wool to Sydney *via* Brewarrina more quickly than *via* Brisbane? Yes.
1553. Much more quickly? Yes.
1554. What would the difference in time be? In wet weather it might be two or three months on the road.
1555. Would it not be the same on either side of the border? No, because on the Queensland side they have a network of creeks similar to that between Bourke and Goodooga.
1556. But in rainy seasons, all the roads in these districts are pretty well impassable? The roads on the New South Wales side are better than the roads on the Queensland side.
1557. But are they not all bad? Yes. The road from Goodooga to Brewarrina is always passable. It is bridged now.
1558. It is made, but not metalled? Yes. There is natural water all the way, and a telegraph line.
1559. Then how does it come about that you have your goods sent from Bourke? They come through Brewarrina.
1560. You have them sent by train to Bourke, thence by river to Brewarrina, and thence by team to Goodooga? Yes.
1561. When the river is not navigable, do you still go to Bourke? Yes.
1562. You have a long way to cart? Not further than to Byrock, and there are more teams available at Bourke than at Byrock. Trade has drifted towards Bourke, because it is an old-established place, and because the large agencies are there.
1563. Most of the wool is sent to Bourke, and you take advantage of the teams to get up back loading? No, that has nothing to do with it, so far as I am concerned.
1564. If you have a good road from Goodooga to Brewarrina, and from Brewarrina to Byrock, why do you not avail yourself of it? Because there are no teams and no agency at Byrock. I get my goods sent from Byrock whenever I can.
1565. It is because carriage from Bourke is more reliable that you send goods that way? Well, Bourke is the depot, while Byrock is only a passing station. I would far sooner send to Byrock.

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1566. If there were the same number of teams at Byrock as at Bourke, which place would you get your goods from? From Byrock. There would not then be a ton of stuff sent to Bourke from Brewarrina or Goodooga.
1567. I suppose all your goods are conveyed on drays, not on camels? Yes.
1568. Apart from the actual saving in cost and in time to the people of the district, what good would the construction of this line do to the country? It would bring in a lot of fat stock from Queensland, and a lot of stock that now travel all along the Bogan would be trucked at Brewarrina. A lot of stock which go right down to Nyngan would be trucked at Brewarrina. The stock route to Bourke is very bad.
1569. Does most of the stock go to Bourke? Yes, in anything like a good season.
1570. If the proposed railway were made, and the road from Goodooga to Brewarrina were very bad, whilst some other road was good, the probabilities are that the stock would follow the good road. The conditions out in that part of the country are very variable? They are more equable there than in other places I know of. Cattle can travel there when they cannot travel in any other part of the country. There is always grass there.
1571. Do you see any probability of a further development there? I think that all the country between Byrock and the Bogan will be thrown open for settlement.
1572. What about the country between your place and the river? That is already held in small holdings.
1573. There is no room for expansion there? No.
1574. It is held under settlement leases, and there is not likely to be any subdivision of them? Not so far as I know.
1575. For further settlement we must look to the area between Brewarrina and Byrock? Yes.
1576. It is estimated that the proposed railway would start with a loss of over £4,000 a year? I hardly know how that can be.
1577. Can you tell us if, in your opinion, the district would progress so greatly after the construction of the railway as in a short time to make up for the loss? No, I cannot speak as to that. Of course, an increase in population would naturally follow the construction of the railway.
1578. You are not prepared to go into estimates of traffic? No, I am not able to do that.
1579. The real object of your attendance here to-day is to inform the Committee of the disadvantages under which the settlers in that part of the Colony live, and the necessity for bringing them closer to market, if possible? Yes.
1580. *Mr. Wright.*] I think you said in answer to a previous question that you were not aware that many homestead leases had been transferred? I am aware that there have been sales of homestead leases.
1581. Homestead leases out there are too valuable to abandon? Certainly. I do not know one that has been abandoned.
1582. Although there has been a decrease in the number of homestead lessees, that has been caused by the fact that the leases have been sold to pastoralists and to others? Yes.
1583. You have said that you are not aware that the number of homestead lessees has decreased very largely? I am not aware of it.
1584. Does not a pastoral lessee sometimes rent a homestead lease for the grass upon it? I have known that to be done; but I do not know of half a dozen such cases.
1585. How many homestead lessees are there on the resumed area of Dumble? I think five. All the original lessees, except one, are there.
1586. Can you name the people who are there? There is Mr. W. R. Moore, of Mogilla; his son, William Moore; and his son, Charles Moore.
1587. Are all the members of the Moore family still in possession? Yes; they have been there ever since they took up the land.
1588. Is it your experience that the homestead lessees have been successful? Yes.
1589. Is it not a fact that in many places homestead leases are held in groups by, perhaps, a father and two or three sons, and in that way a large extent of country is acquired? Yes.
1590. Where homestead leases have been taken up in the Narran country the lessees can always command a good rental for their land? Yes; or get a good price if they want to sell out.
1591. That is proof positive of the value of the country? Yes.
1592. You said that you believed that some people at Brewarrina had formally guaranteed the interest upon the cost of the proposed line;—were they substantial guarantors, who could have met the obligation? I believe so; but this was some years ago. Things may have changed since then.
1593. Do you think the Wooleerina wool will come to New South Wales while the export duty is in force? I think it might. The New South Wales Commissioners allow a large rebate.
1594. They would have to carry the wool from Brewarrina to Sydney for £2 a ton if they allowed a rebate to the amount of the stock tax? Well, that is a matter for them to deal with.
1595. Do you think there is a possibility of any portion of that wool coming to New South Wales, seeing that the Queensland Government are offering very low rates, and are acting as forwarding agents? I should not think so.
1596. Therefore, we cannot put much faith in the Queensland traffic? That traffic would have to be competed for very eagerly.
1597. From your knowledge of the district and its possibilities, do you think that the proposed line should be constructed? Yes.
1598. Could you give the Committee any idea as to the tonnage taken into the district? No.
1599. If we have been told that the tonnage going into Brewarrina is about 2,000 tons, what would you say? I think that is inside the mark.
1600. Do you think that the estimate is too low? Yes.
1601. It has also been stated that the average quantity of wool produced within the area shown on plan 2 does not exceed 20,000 bales per annum? Well, I have seen 23,000 bales at Brewarrina.
1602. You think the estimate of 20,000 bales for that district too low? I think so, for a good season.

FRIDAY, 5 NOVEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
 The Hon. JAMES HOSKINS.
 The Hon. CHARLES JAMES ROBERTS, C.M.G.
 HENRY CLARKE, Esq.
 CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.
 THOMAS HENRY HASSALL, Esq.
 GEORGE BLACK, Esq.
 FRANCIS AUGUSTUS WRIGHT, Esq.
 FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

George Charles Yeo, Stock Branch, Department of Mines, sworn, and further examined:—

1603. *Mr. Wright.*] Can you now furnish the Committee with a return of the stock which were treated at the meat-works at Bourke during 1896? It is as follows:—

G. C. Yeo.
 5 Nov., 1897.

How treated.	Cattle.	Sheep.
Boiled	2,537	28,258
Chilled	1,506	21,279
Preserved	280	.....
Total	4,323	49,537

1604. Have you brought a return of the stock which came into Bourke during 1896? Yes; it is as follows:—

Road.	Horses.	Cattle.	Sheep.
From north-west to Bourke	630	25,968	152,901
From north to Bourke	1,072	67,535	319,743
From north-east to Bourke	437	2,250	121,600
Total	2,139	95,753	594,244

1605. That return only includes the horses, cattle, and sheep which came in by the roads from Narran, Hungerford, and Wanaaring? Yes.

1606. Can you furnish a return of the stock trucked at Bourke during 1896? In that year 1,299 horses, 23,555 cattle, and 99,837 sheep were trucked at Bourke.

1607. Have you a return of the stock which came into Byrock during 1896? By the road from north-east to Byrock, 230 horses, 750 cattle, and 57,335 sheep.

1608. Have you a return of stock trucked at Byrock during 1896? 113 horses, 835 cattle, and 66,415 sheep.

1609. These figures you have obtained from your own inspector? Yes.

1610. You desire to correct the answers which you gave to Questions 1200 and 1201? I desire to state that the area indicated by the red line on the map submitted by the representatives from Brewarrina yielded 2,551 tons of wool in 1896. That clip is described by our local stock inspector as being fairly good.

1611. The clip on the whole of the stations within that district indicated by the red line was 2,551 tons in the year? Yes.

1612. You now desire to correct the answer you gave to question 1,201. "Do you know what full woolled sheep averaged in there"? I am now in a position to answer that question. Sheep in the grease, 6 lb; sheep scoured, 3 lb. 8 oz.; lambs in the grease, 2 lb. 4 oz.; lambs scoured, 1 lb. 4 oz. That is the average clip for 1896 in the Brewarrina district.

1613. *Mr. Fegan.*] How do the figures for 1896, with reference to stock coming into Bourke and Byrock, compare with the figures for last year? I did not work out the figures for last year.

1614. Will you supply the figures for last year? I will.

1615. *Mr. Lee.*] I think you now have a return in the Department showing the estimated losses in that district during this year? I believe we have.

1616. Was it a particularly severe year owing to the drought? I could not well answer the question.

1617. Were the losses caused by starvation from the drought? Starvation.

1618. And by cold weather after shearing? The greatest number of losses were owing to the drought.

1619. The losses were supposed to be heavy last year? They were not so heavy in that district as they were in some of the others. They had a fairly good season towards the latter end in that district.

1620. Have you reason to believe that last year would be an average year? It would be about an average year.

1621. It would follow that there are fairly heavy losses every year? Yes.

1622. If we take the figures for last year, it would be about as close an approximation as we could get? Yes.

1623. Will you forward to the Secretary a return of the losses for this year? Yes.*

THURSDAY,

* NOTE (on revision):—Horses, 500; cattle, 1,000; sheep, 50,000; lambs, 150,000.

THURSDAY, 11 NOVEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

Charles Louis Shainwald (E. Rich & Co.), Sydney, sworn, and examined:—

- C. L. Shainwald,
11 Nov., 1897.
1624. *Mr. Hoskins.*] Do you reside in Sydney or Bourke? In Sydney, but I visit Bourke and the district every month.
1625. Are you engaged in business in the Bourke district? I am manager of branches for E Rich & Co., Limited. They have their office here, and branches inland at Bourke, Walgett, Brewarrina, and Wilcannia.
1626. Does your firm send much loading or merchandise from Bourke to Brewarrina? Yes.
1627. Can you give a statement of the quantity? I have a statement here which I laid before the Committee on the inquiry into the lock and weir on the Darling, and that covered practically the same question. Freight from Bourke to Brewarrina and district in 1892 amounted to 2,192 tons; 1893, 2,078 tons; in 1894, 1,893 tons.
1628. Has your experience since 1894 led you to form the opinion that in 1895 and 1896 the average of the traffic was the same as in the years quoted? No; I should say it was slightly less, for the reason that at that time there was a very large increase in the traffic owing to the fact that the stations used wire netting, on account of the rabbits. That caused a large volume of traffic.
1629. Has the traffic since diminished? Yes.
1630. Seriously? I could not say seriously. It is only a matter of estimate, for after 1894 the river has been hardly navigable for any length of time, and there were no means of arriving at the river traffic after 1894.
1631. Am I to infer that the traffic on the river from Bourke to Brewarrina has diminished during the last three or four years in consequence of the river not being navigable? Yes, because of the smaller demands on the part of the residents. There have been no improvements going on. The demands of the residents for traffic have been less since 1894.
1632. Has that arisen from any of the runs being abandoned from the serious loss of stock, or from the general adversity which may have prevailed? I should say it has arisen from the serious loss of stock and the depression in the Colony everywhere.
1633. Prior to 1894, were you in the habit of receiving much wool from the Brewarrina district? Yes; I have a return which I laid before the previous Committee as follows:—Wool from Brewarrina and district, 1892, 15,960 bales; 1893, 14,592 bales; and 1894, 12,749 bales.
1634. Has your firm an office at Brewarrina? Yes, and a staff of employees.
1635. Are there other forwarding agents there besides Rich & Co.? Yes, Wright, Heaton, & Co. have a representative there. I think that is all.
1636. In the years you have quoted did Wright, Heaton, & Co. forward wool from the Brewarrina district to Bourke? Yes, and that wool is included in my return, which represents the whole of the traffic.
1637. How far does the range of your Brewarrina business extend? It is very difficult to say, because the Brewarrina office is the centre for the Walgett business as well, and all the Walgett traffic filters through Brewarrina.
1638. Then the wool which you specify as coming by steamer to Bourke might have come by Walgett as well as Brewarrina? No; I have taken the stations separately.
1639. Is your firm or any other forwarding agents stationed at Walgett? I do not think there is another firm of forwarding agents with an office at Walgett. I am not positive.
1640. Do you forward much wool through your Brewarrina office by carriers to Narrabri? Not from Brewarrina at all—from Walgett to Narrabri. We limit our business wholly to the Bourke and Brewarrina district.
1641. Do you do business with Walgett? Yes, but only in general merchandise.
1642. Have you been in the habit of forwarding wool from Brewarrina to Byrock? Yes.
1643. Has the quantity of wool forwarded from Brewarrina to Byrock during the last three years increased in volume? I have no return, but I should say it has increased, for the reason that there has been no river traffic.
1644. What is the average rate charged per ton for the conveyance of merchandise from Bourke to Brewarrina, and for the conveyance of produce—wool, &c.—from Brewarrina to Bourke by river? That is a point that I would not care to state, because it would be, to some extent, divulging certain business arrangements, and it depends wholly upon what the traffic will bear. It depends upon what we can get.
1645. What has been the average rate? The rate varies. It has been low in some instances and high in others.
1646. Can you give a maximum and minimum? I would answer that question by saying that under existing circumstances the minimum rate has been 12s. 6d. and the maximum 25s.; but what the rate will be when there is a railway I am not prepared to say.
1647. When was it as low as 12s. 6d.? With the high river in 1892.
1648. Has the construction of the weir near Bourke facilitated navigation in the Darling? I do not think it has. I do not see how it could. There is only one weir. It throws the water back 25 miles, and you might get blocked at that point. It is only in an experimental stage.
1649. Is it the general opinion that the experiment will be successful, if other weirs were constructed, in keeping the river open? Personally, I do not think there is any question about it, nor do I think that those who have seen the weir would question the practicability of doing so.

1650. Since the weir has been constructed, has there been any heavy floods calculated to injure it? There have been two floods which covered the weir absolutely since it was constructed, but they did no injury. I think the highest flood this year, was when the river was up 28 or 29 feet at Bourke. The weir is covered when the river is 15 feet at Bourke. So the weir was practically covered by 14 feet of water, and it was again covered in the late flood.

C. L.
Shainwald.
11 Nov., 1897.

1651. Do you consider that if the navigation of the Darling were improved by the construction of weirs between Bourke and Brewarrina, the owners of steamboats and punts could convey loading to and from Bourke and Brewarrina at a lower rate than it could be conveyed by rail, and yet pay? Yes.

1652. Have you heard many people complain of wool being knocked about when sending it by river? Yes.

1653. Still they do not hesitate to send it when the river is navigable, when there are facilities? The facilities are now being improved. A contract has been let, I think, by the Harbours and Rivers Department for the construction of a wharf and crane accommodation at Bourke, which will, of course, lessen the handling of the wool very materially. In addition to that, the use of the lock and weir has been approved of by the Department for the docking of steamers, which will obviate the necessity of sending the steamers to South Australia for that purpose. The result of that will be that the running expenses of the vessels will be very materially lessened, and the cost of running as a whole will be reduced.

1654. What fuel is used? Wood.

1655. Is there any difficulty in obtaining wood? No; it costs from 4s. to 6s. a ton. I wish to substantiate some figures which I gave to the Committee in connection with the Locks and Weirs inquiry. Some doubts have been expressed as to their correctness. In order to place those figures in proper comparison with the figures already submitted to the Committee, I obtained from the Secretary the evidence given before this Committee, especially that given by Mr. Harper and Mr. Sawers. I now beg to refer categorically to that evidence. In reply to question 201, Mr. Harper gives the following figures as to the receipt of wool at Bourke from the Brewarrina district:—

	1893-94	1894-95.	1895-96.	1896-97.
River	13,000 bales.	12,528 bales.	209 bales.	2,608 bales.
Road	5,000 "	4,940 "	9,791 "	7,268 "
	<u>18,000 "</u>	<u>17,468 "</u>	<u>10,000 "</u>	<u>9,876 "</u>

In reply to Q. 202 and Q. 203, Mr. Harper adds:—

	1893-94.	1894-95.	1895-6.	1896-97.
Walgett	9,270 bales.	8,500 bales.	2,462 bales.	2,061 bales.
	<u>27,270 "</u>	<u>26,268 "</u>	<u>12,462 "</u>	<u>11,937 "</u>

The figures given by me (p. 16, Locks and Weirs evidence) were made up from January 1st to December 31st of each year, whereas those given by Mr. Harper are apparently made up from June of one year to June of the following year, as is the railway practice. The statement made by Mr. Trickett (Q. 219 and Q. 220) is incorrect in that it declares my figures in the Locks and Weirs evidence to have been given for the season 1893-94. On the contrary, the figures are for the years 1893 and 1894 individually. Nevertheless, taking the series of years 1892, 1893, and 1894, my figures will be found to agree substantially with Mr. Harper's, thus:—

1892.	1893.	1894.
28,245 bales.	27,120 bales.	25,071 bales.

The small discrepancy is accounted for by my having included intermediate wool, which Mr. Harper quite properly rejects as outside the scope of the present inquiry. Q. 296.—Mr. Kerrigan's statement cannot be treated as statistically correct, as he has had no books from which to arrive at figures with any exactness. When he states that the traffic is 10,000 tons he is making a manifest over-estimate. In no one year has the traffic reached that quantity. The figures I have already given were taken from our books at Bourke, where only the complete records are kept. Q. 471.—Mr. Bacon says that a lot of wool from that portion of the Colony of Queensland, North of Goodooga, comes into New South Wales now. Stations partly in Queensland and partly in New South Wales can hardly be included wholly under the category of Queensland stations. I know of no wholly Queensland wool, except Kinglibilla, from that section coming into New South Wales at present, nor is the railway likely to bring it. Q. 719.—Mr. Sawers credits the Boorooma wool to Brewarrina. I believe with a railway to both Walgett and Brewarrina, it would go to Walgett, for the reason that the rate thence is lower, *vide* Mr. Harper's evidence, Q. 186:—Walgett to Newcastle, £3 9s.; Brewarrina to Sydney, £4 10s. In same question, Mr. Sawers states the cartage at Bourke at 3s. 6d. At present it is 2s. 6d., and will probably be further reduced when the wharf and crane accommodations at Bourke (for which tender is let) are completed. The estimate of river freight is capable of reduction under the late altered conditions whereby a dock is shortly to be completed at the Bourke weir, thus reducing the maintenance expenses of steamers very materially. Hitherto it has been necessary to include in estimated expenditure the cost of a voyage every two years to South Australia for docking, which will be done away with when the dock is completed at Bourke. Mr. Sawers credits Brewarrina with an average wool traffic of 17,934 bales, but this has not been reached in any one of the years 1892, 1893, or 1894 specified in my evidence on the Locks and Weirs inquiry. The highest was in 1892, in which year it was 15,960, or, say, 2,000 bales less than Mr. Sawers' estimate, and this 15,960 bales includes intermediate wool between Brewarrina and Bourke. It is for the Committee to say whether, with the evidence of Mr. Harper on river competition before them, Mr. Sawers' estimate is likely to be reached. Mr. Sawers bases his wool tonnage on an average of $5\frac{1}{2}$ bales to the ton, but I have here a return covering 21,333 bales received at Bourke in years 1892 and 1893 from the Brewarrina and Walgett districts indiscriminately, on which the average is $6\frac{2}{3}$ bales to the ton, so that Mr. Sawers' tonnage calculation is very materially over-estimated. For example, Mr. Sawers states that his estimate of 17,934 bales is equal to 3,416 tons at $5\frac{1}{2}$ bales. The same number of bales of wool on the proven average, as shown herewith, of $6\frac{2}{3}$ bales to the ton, is only 2,686 tons, an over-estimate of 730 tons. A further deduction of 300 tons (2,000 bales) should be made representing the difference in the average (17,934 bales) claimed by Mr. Sawers and that proven by my figures (15,960 bales). A further deduction should be made of intermediate wool between Brewarrina and Bourke, which in season 1892-93 was 391 tons, and in season 1893-94, 437 tons (see return), or, say, 400 tons average, thus leaving the wool tonnage on Mr. Sawers' own figures 1,986 tons, against Mr. Harper's 1,500 tons. Of the two, I believe Mr. Harper's to be nearer to

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to actual figures, and in support of same I have here a return prepared of wool in tons actually received by my firm at Bourke, made up from June, 1892, to June, 1893, and June, 1893, to June, 1894, as follows —

Wool loaded at Brewarrina	1892-3	1893-4
Wool loaded above Brewarrina, and at Walgett ...	1,443	1,445 tons
	1,641	1,659 „

This substantially represents the whole of the wool traffic, as probably four-fifths of it is handled by our firm. Shortly then, the foregoing statement may be summarised as follows —

Mr Sawers estimates the Brewarrina average wool traffic	Bales	Tons
From which I deduct over-estimated weight	17,934	3,416
		730
Leaving tons		2,686
I next deduct the difference in average traffic	2,000	300
Leaving	15,934	2,386
I then deduct intermediate wool between Brewarrina and Bourke		400
Leaving tons		1,986

The Committee have, therefore, these three results — Mr Sawers, 1,986 tons, Mr Harper, 1,500 tons, my figures, 1,445 tons. I would also hand in to the Committee the following detailed returns —

Return of wool actually loaded at Brewarrina, and between Brewarrina and Bourke, by E Rich & Co. (Ltd)

Season 1892-93	Ton cwt	Season 1893-94	Ton cwt
Deduct intermediate—	1,833 0	Deduct intermediate—	1,882 4
Abydos	8 7	Abydos	17 3
Beemery	100 1	Beemery	168 9
Wolkara	81 10	Coolaburra	15 13
Warraweena	182 4	Wolkara	34 18
Yambacoona	18 16	Warraweena	168 10
		Oakleigh	22 5
		Yambacoona	10 10
	390 18		437 8
Net tons	1,442 2	Net tons	1,444 16

River Wools—Season 1892-3 Return showing Average Weights, &c.

Station	No of bales	Weight				Station	No of bales	Weight			
		Tons	cwt	qr	lb			Tons	cwt	qr	lb
Abydos	54	8	7	3	24	Lipsley	78	12	12	0	1
Collawaroy	11	2	0	1	0	Langboyd	43	5	12	0	25
Brenda	1,150	202	13	1	0	Mayfield	105	15	3	3	11
Boganderra	73	11	4	2	7	Muckerawa	307	47	5	0	0
Boorooma	2,100	282	8	0	11	Milrea	328	56	12	2	4
Beemery	1,182	201	11	2	8	Milroy	1,382	144	10	0	2
Bundabulla	665	115	5	3	12	Moorlands	62	9	8	2	16
Barwon Vale	127	20	9	1	14	Mission Station	30	2	13	0	3
Burren Burren	134	23	19	2	19	Mercadool	218	30	17	1	2
Bundabulla East	71	8	15	2	25	Morendah	373	66	7	2	5
Bree View	15	2	1	3	4	Mapoga	31	5	17	0	25
Bunna Bunna	134	24	0	0	3	Narrowin	56	9	17	1	6
Cuttabundia	319	50	14	1	5	Narran Point	51	7	12	1	0
Chipp's Folly	106	16	10	1	11	Piangobla	73	8	7	3	7
Coolabuna	58	8	8	1	14	River View	62	8	14	0	6
Craigmore	38	5	15	2	14	Do	48	7	1	0	27
Cato Creek	185	29	18	2	21	Quantambone	1,049	126	6	0	17
Coobendfa	112	17	7	2	11	Tara	130	23	3	0	5
Denman	117	20	4	0	5	Talawanta	918	148	15	1	5
Dunglear	598	85	18	1	7	Tarrion	259	42	15	0	17
Euroka	616	105	13	0	15	Do	47	5	18	2	9
Embrah	60	13	4	0	14	Ulah	187	33	5	2	23
Engun	71	8	17	0	27	Ulumbie	271	49	10	2	18
Finger Post	28	4	9	3	7	Wirra Warra Station	170	24	6	3	3
Flemington	139	20	5	0	12	Willowillingbah Station	142	23	10	1	3
Glen Alpine	38	7	15	2	16	Willoh Station	104	18	2	2	25
Gnomery	590	100	9	0	22	Woolerina Station	751	91	11	2	1
Gingie	1,738	317	17	1	13	Wolkara Station	721	81	10	1	16
Goonoo	17	2	10	1	20	Warren Downs Station	88	11	2	2	2
Grawin	57	10	10	1	27	Woodlands Station	45	5	6	2	14
Gerongra	35	3	8	1	24	Wingalah Station	76	11	13	2	19
Glendon	39	6	17	2	4	Yarrowin Station	978	116	7	0	16
Guiseley	48	9	9	1	23	Yambacoona Station	120	18	16	0	11
Homebush	101	13	6	1	23	Youcurrre Station	118	21	15	1	20
Holmwood	54	8	3	2	0	Whitewood Station	100	17	7	1	25
Jubilee	30	4	19	3	18						
Lolleep	116	21	18	2	13						
Llanillo	786	123	8	2	14						
							21,333	3,230	17	3	3

Average weight per bale, 3 cwt 0 qr 3 lb, or 6½ bales to the ton

1656 Have you any doubt in your mind that if there were a favourable river between Brewarrina and Bourke, the greater portion of the traffic of Brewarrina would be sent to Bourke by river? I feel satisfied that, with a favourable river, the traffic would always go to Bourke.

1657 Why? It is a matter of price

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1658. Would the loading be carried cheaper by the river to Bourke than from Brewarrina to Byrock? Yes, especially from above Brewarrina, because there would be no trans-shipment necessary at Brewarrina.
1659. If a railway were constructed from Byrock to Brewarrina, would your firm enter more vigorously than it has done into the forwarding business at Brewarrina? By all means.
1660. *Mr. Trickett.*] We have had a number of witnesses before us, and we have asked them if they ever heard or knew of the rate of carriage by river from Brewarrina to Bourke being as low as 12s. 6d. per ton. In every case they denied the statement. Mr. Bacon said that he has lived in the district for seventeen years and he never paid less than 25s. a ton, and that he has frequently paid from 30s. to £2 a ton for up loading. The statements are so very conflicting that I should like to ask you whether the rate you mentioned of 12s. 6d. per ton was an isolated case? It was certainly an isolated case.
1661. I suppose it is not intended by you to put that down as a kind of average? As bearing upon the present inquiry, I should say yes, because it shows the minimum rate that we have been charging, and we might be prepared to go under that if a railway were constructed.
1662. That would be a cutting rate? Exactly.
1663. Would 12s. 6d. per ton give you a profit? That is very hard to answer.
1664. Would insurance have to be added on to that rate? Yes.
1665. Would cartage from the wharf at Bourke to the railway have to be added? No; we give our rates through to the railway. Only insurance would have to be added.
1666. Does Mr. Harper estimate the rate of carriage from Brewarrina to Byrock and *vice versa* at 15s. a ton? He estimates goods traffic at 10s. a ton, wool at 10s. a ton, and intermediate wool at 7s. 6d. a ton.
1667. If you were to come down so low as 12s. 6d. per ton, why would people pay 12s. 6d. when they could send their goods by train for 7s. 6d.? We do not say that we would come down to 12s. 6d.
1668. You say you might come down to that? No; we say that that has been the maximum and minimum rate up to the present, but we do not say what we are prepared to charge if a railway is constructed.
1669. Are you likely to come down to 7s. 6d.? I cannot say.
1670. I suppose you concede that with regard to stock carriage the railway would always be used in preference to the river? There is no question about that; but I do not concede that we are not in a position to carry stock by the river.
1671. Still the stockowners prefer the railway? There would be less handling by train.
1672. What has been the effect of the construction of the weir at Bourke? After the first flood we had a splendid sheet of water from 20 to 25 miles north of Bourke.
1673. Therefore, with a view to improving the depth of water at Bourke, and a few miles above it, the weir is performing the work expected of it? Unquestionably.
1674. Mr. Sawers was asked to supply certain information, and to produce a block map showing the area of country that he thought would feed the Byrock-Brewarrina railway if it were constructed. He supplied the plan which you have before you, and a list of stations;—what is your opinion with regard to that map? Looking at it very roughly, I would draw the line on the east side of the Culgoa River. All the country east of the Culgoa is flooded when the river is high.
1675. What stations are comprised in the area you mention? From Milroy, with high water, the wool would just as likely go to Bourke as it would go by road to Brewarrina. At present it goes to Bourke by road. The bulk of the stations mentioned are quite correct. Boorooma is doubtful as far as the Byrock to Brewarrina railway is concerned. I happened to see the manager of that station a fortnight ago, and I asked him casually which way he would be likely to send his wool in the event of a railway being constructed to Walgett and also to Brewarrina, the rate from Walgett to Newcastle being £3 9s. per ton, and from Brewarrina to Sydney £4 10s. a ton. With these figures before him, I asked him which way he would send his wool. He said to Newcastle, as being the nearest and cheapest point to the sea-board. Milroy, Boorooma, Weilmoringle, Kunreebree are doubtful. The latter station appears as Kerreebree in the evidence. Calga is doubtful. The others are unquestionably correct.
1676. Are they doubtful only in the alternative of a railway being constructed to Walgett, or are they doubtful if there is only the railway to Brewarrina? Boorooma would be doubtful, leaving out the question of river competition. The wool from Weilmoringle would go to Brewarrina when the roads were dry. In wet weather it would go to Bourke by road, where it goes at present. Kunreebree the same. There would be three very bad creeks to cross before reaching Brewarrina.
1677. Are all those stations which you have named very large stations? Yes.
1678. Would that make a considerable reduction in the traffic? Yes, over 5,000 bales. In really bad weather we have had Weilmoringle wool coming in by Engonia. It is never shipped.
1679. Have you gone very carefully into this question of the estimated traffic? There is no difference between Mr. Sawers' figures and mine. I took Mr. Sawers' figures as a basis. I have given you other figures to show where I think he makes an over-estimate. He has made an over-estimate in averaging the bales at $5\frac{1}{2}$ to 1 ton. I estimate that there should be $6\frac{2}{3}$ bales to 1 ton.
1680. Do you give an estimate of the wool which would be sent by those stations which you say are doubtful? I can safely say that the quantity would be over 5,000 bales.
1681. Why do you think that none of the Queensland traffic would come over this way? As far as that section of the country is concerned, the Queensland Government are already considering the extension of the railway to St. George, which would take much of that traffic. We never had a very large section of that traffic even before the Queensland Government brought in the border tax. The only large station we had was Woolerina. Even without the border tax, I do not think it would come in, because they have moved the head station 70 miles away from where it was before, towards the Queensland railways.
1682. Are the Queensland Government competing very hard for that traffic? Yes.
1683. Is it a fact that they are going in for contracting on the Queensland railways? They did so some time ago. Whether they are doing so at present I cannot say. They give the station-owners a through rate from the stations. They pay the cartage themselves.
1684. Are they going on with that? I cannot say.
1685. Supposing weirs were constructed in preference to a railway, would your firm, or any other firm, come forward to make fixed charges for carriage to last for a considerable time, the same as the railways make fixed rates? I think they would be in a better position to do so than at present. With a settled river, there is no doubt there would be competition between the boats themselves. At present the river

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is so uncertain that it does not pay boats to compete. If there were a fixed river, there would be competition, and rates would have to be fixed, and fixed pretty low.

1686. With regard to the two systems of carriage, what is your experience as to which is the most availed of—where there is a railway and where there is a river? I should think that, all the world over, river traffic has the preference over any other method as being the cheaper.

1687. *Mr. Hoskins.*] Is there much wool sent by river from Bourke to Melbourne or South Australia? Very little.

1688. *Mr. Clarke.*] You have stated that in the event of the river being navigable, the traffic from Brewarrina to Bourke would go by river in preference to a railway? Yes; on the assumption that the rate would be lower.

1689. During the last two or three years the weather has been very dry, and the river could not be taken advantage of? Quite so.

1690. How do they convey the wool? To the railway at Bourke or Byrock.

1691. Is the land-carriage from Brewarrina to Byrock cheaper than the water-carriage? The land-carriage to Byrock is higher than the water-carriage from Brewarrina to Bourke.

1692. If a railway were constructed from Byrock to Brewarrina, is the traffic likely to increase? I cannot see from what source it can be increased. It would simply take the traffic away from some other point.

1693. Would there be much probability of the loss on the railway being recouped? I cannot see it.

1694. Would a railway be more convenient on the whole for the people about Brewarrina and the adjoining country than going by way of Bourke by water and thence by rail? Yes; under existing conditions.

1695. *Mr. Humphery.*] I think you contrasted the traffic on the Western and North-western systems of railway, favouring the North-western system, because of the favourable difference in the railway rates? I do not think I made a contrast, except in the case of one station—Boorooma.

1696. Upon the assumption that it would be worth while for that station proprietor to send his wool by the North-western system instead of by river down to Brewarrina and Byrock, and by the Western system, what would be the effect of the construction of the Narrabri-Walgett railway on the river traffic now going to Bourke;—would it be the means of attracting traffic up stream to Walgett? Up to a certain point it certainly would. The river competition would be the same at either point.

1697. To what extent would that affect the prospects of the railway? I should say that any station from Boorooma north would be just as likely to go to Walgett as to come down the river.

1698. What stations, included in the red boundary, would send their wool by Walgett in the event of a railway being constructed to that point? If a station like Boorooma, which is the largest, took the step which the manager said would be taken, I should conclude that any station north of that point would do the same.

1699. Mention the stations that would be similarly affected? Moonabie, Gingie, Euroka, Llanillo—there are a great number of selections around there—Ulah, Milrea. These are the largest stations on the river from Boorooma north to Walgett.

1700. Do you say that with the rates quoted the probability is that the wool from those stations would go to Walgett up stream instead of to Brewarrina? Yes; leaving out the question of river competition. Purely as a railway matter, if they had those rates before them, they would take the line from Walgett to Newcastle.

1701. How many bales would be sent from those stations? Probably 7,000 bales.

1702. About 1,000 tons? Yes.

1703. At present does the wool reach either one or the other system of railway? Yes.

1704. So that if a railway from Byrock to Brewarrina is made, and also a railway from Narrabri to Walgett, it is just a question whether the wool would come by the Byrock-Brewarrina or the Walgett-Narrabri railway? Yes.

1705. *Mr. Lee.*] Have you examined the names of the stations enumerated in question 974, and are you of opinion that the destination of the produce from some of them would be doubtful; that some would go to Brewarrina and some to Bourke? Yes, under certain conditions of the seasons.

1706. Therefore, if it has been stated that the produce of those stations would be absolutely certain to go by this proposed railway, and that the traffic could not be diverted to any other place, are you of opinion that that statement is correct? No; I would not take it as an absolute certainty, and I would deduct it from the return.

1707. Could any of that traffic be diverted if a railway were made to Walgett, or if a railway were made to Byrock from Brewarrina? Boorooma is the only one.

1708. Supposing the statement is correct? Yes; there is no doubt about it.

1709. Have you dealt with the goods traffic? No.

1710. Have you seen the return given in Mr. Sawers' estimate of the goods traffic? I have not had time to go into the goods traffic very closely.

1711. Have you any reason to question the accuracy of Mr. Sawers' statement in that respect? No reason whatever, but I have not examined it closely.

1712. Is Mr. Sawers' estimate an over-estimate? If it is only the goods traffic as far as Boorooma I should consider it is an over-estimate.

1713. How much? It is very difficult to say.

1714. Do you find a difficulty in dividing the traffic as far as Boorooma and as far as Walgett? Yes, without making a special examination of the traffic, because my estimate includes all the intermediate traffic between Bourke and Brewarrina.

1715. Mr. Sawers has relied upon your figures, and there may be a different destination? The scope of the inquiry was different. That was an inquiry as to all the traffic coming to Bourke as a terminal, whereas the present inquiry is what will come to Brewarrina from that section only. I think that is where Mr. Sawers made a mistake.

1716. Taking it on the Brewarrina basis, and assuming that Brewarrina was the railway depôt, do you think there would be, from that point up stream, 2,450 tons of goods? No.

1717. If you had the whole of the trade dealt with between Bourke and Walgett, it would only amount in the best year to 3,500 tons? Yes.

1718. If a railway were constructed to Brewarrina, with a favourable river, would there be competition from Bourke to a point beyond Brewarrina? Yes, undoubtedly. 1719.

1719. As to the traffic of the western country generally during the past five years, has there been an increase or a decrease, or has it stood still? That is only a matter of opinion. I should say that there has been a decrease. There has been a constant decrease since 1892.
1720. Have there been some special reasons for that—periods of drought or flood? Yes.
1721. Would not that operate against an increase of production? Yes.
1722. Would it be fair to take that traffic as a basis? No.
1723. Would it be reasonable to suppose that we will come back to a period when there was as much traffic as there was in 1892? It is very hard to say, because at that time there were a great many improvements going on. Whether that will occur again I cannot say.
1724. What settlement is there likely to be in that country? I think the general trend in the back country is that with an increase of settlement there will be an increase of production.
1725. Has there been an increase of produce? According to the returns there has not. Whether it is due simply to a bad season, or whether the country generally is in a worse state, it is difficult to decide. There has been more settlement.
1726. Do you handle nearly all the produce in that part of the country? Yes.
1727. Taking all station produce, except live stock, has it increased or decreased? It has decreased in volume and bulk, but it may have increased in the number of growers. The settlement is larger, but the produce has not been commensurate with it.
1728. As far as your returns would show, if any of the stations had been converted from sheep into cattle stations it would show a decrease in your returns, because you do not handle live stock? Yes.
1729. Has there been any such change? No, it is quite the reverse. Some who had cattle at that time have sheep now.
1730. What is your opinion as to the future of the country there;—is it going to increase in production? In the immediate future, say within the next ten years, I do not think so. Within the next quarter of a century I hope to see it a great agricultural country.
1731. What could happen to increase the grazing capabilities of the country? I do not know that I can offer a suggestion to the Committee.
1732. Is the country capable of carrying 50 per cent. more stock than at present? By no means.
1733. Then you are unable to see how the returns are going to be increased unless there is increased agriculture? Unless fresh conditions arise.
1734. Those conditions are not there to-day? No.
1735. If that be the case, and any railway to any point is to be made under the condition of a loss to start with, what prospect can be held out by you and others of that loss being recouped in the near future? Nothing other than a large growth of population in the more populous centres.
1736. Have small settlers in that country been a success? No.
1737. Is the statement correct, that to carry on sheep-farming at a profit in that uncertain country the area must be large and the number of stock carried also large? The area must be large. As to the number of stock, that would depend upon the quality of the country.
1738. Does the history of that country prove that it has always been subject to periods of disaster? Yes; subject to drought and flood.
1739. Is that likely to continue? Yes.
1740. If small settlement has not been established there under the favourable conditions of the land laws what prospect is there of small settlement coming later on? The only way in which I can see small settlement could come there is by using the land for different purposes, as Mr. Barton is doing now, for agriculture. I might say that there is already a lot of land available for that purpose where there is a railway—that is, from Bourke down to Nyngan. But I believe that is what will come eventually. There will be a large agricultural country, but not in this century.
1741. Would you like to embark in that yourself? No.
1742. Then you are utterly unable to show the Committee, if a railway is to be made to Brewarrina which will show a large loss upon its completion, how that loss is to be made up in the future? No; not in the immediate future.
1743. Are you also of opinion that if a railway is made there the river will always compete with it under favourable conditions? When the river is favourable, at all times.
1744. A good season on the river would be disastrous for the railway? Yes.
1745. What could happen to drive all the trade on to the Brewarrina railway and take a certain portion away from Bourke? Only two conditions that I can see—one, that the railway should cut the rates down below their present estimate, or another which would, of course, entail considerable hardship; that is, not to snag the river, so as to prevent boats from travelling.
1746. Or imposing a river tax? Yes.
1747. None of which you advocate? No.
1748. *Mr. Wright.*] You have looked over Mr. Harper's estimate and his estimate of traffic, and also Mr. Sawers—Mr. Sawers says that he bases his figures on your figures, and his deductions from the figures you submitted to the Committee on a former occasion lead him to believe that Mr. Harper has under-estimated the traffic by 50 per cent.? Yes.
1749. Have you shown that Mr. Sawers' figures are incorrect? I say they are over-estimated. I take Mr. Sawers' figures and I show where I think they are over-estimated, and I bring out a result equal to Mr. Harper's figures.
1750. You say that you take an average of 6½ bales of wool to the ton;—is not that very large? I extracted that from my own books.
1751. The number of bales that Mr. Sawers estimates, and the number you estimate is practically the same, yet you bring out the result of 730 tons less? Yes.
1752. Does it all hinge on the question of a certain number of bales to a ton? Yes.
1753. Do you agree that it is a growing practice to scour more wool on the stations which decreases the weight? Yes.
1754. It is also the practice to use a smaller-sized bale? Yes.
1755. Mr. Harper estimates the goods at 2,000 tons, Mr. Kerrigan, your agent at Brewarrina, estimates it at double that quantity. Can you give the Committee any explanation;—do you say that Mr. Kerrigan's estimate is unreliable and incorrect? Yes; he has no books to guide him.

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1756. Are Mr. Harper's figures approximately correct? As far as my knowledge and examination have gone, I should say that Mr. Harper's figures are very nearly correct—quite as correct as I could arrive at them.

1757. Are they correct on the tonnage? Yes.

1758. A great deal of stress has been placed upon the importance of this railway, because it was stated that there was an immense truckage of stock from that district, and that, therefore, the railway is of importance to the stock-owners, and would pay. Mr. Harper estimated that there would be 1,000 trucks of live stock per annum. That was disputed by some people in Brewarrina. One agent said he himself sent 900 trucks of stock from that district. In getting evidence from the Stock Department, we find that Mr. Harper's figures are substantially correct in that respect also;—is there a large quantity of stock taken to Bourke? I am not able to speak on that subject, but there are meat-works at Bourke, and a considerable amount of stock is sent there.

1759. Would not that stock go to Bourke under any circumstances? Yes, unless similar works were constructed at Brewarrina.

1760. Are not the works at Bourke largely owned by people in the Narran district? Yes.

1761. Are they likely to put up works at Brewarrina? I very much doubt it.

1762. Do you say that the prospects of agriculture are great in the future? That is my opinion.

1763. There has been no agricultural settlement of consequence during the last thirteen years between Bourke and Nyngan, and what prospect is there of any immediate agricultural settlement between Byrock and Brewarrina? It is not likely; there is no immediate prospect. Land is being taken up along the railway line between Bourke and Nyngan for agricultural purposes.

1764. What are they growing? Wheat chiefly; there are some very good crops.

1765. You are largely interested in the Bourke business, but disabusing your mind of that, can you tell the Committee whether you think it would pay the State, and be justifiable, to construct a railway between Byrock and Brewarrina? I do not think it would under present conditions.

1766. Unless conditions alter very materially, do you think it would be an unjustifiable expenditure? Yes, taking everything into consideration, especially the competition from other sources for the traffic.

1767. Would the construction of this railway confer a very large benefit on the people around Brewarrina to the north-east and north-west? There is no question it would confer a benefit, particularly on the town of Brewarrina.

1768. Would it confer a great benefit on that large agricultural and pastoral district? I do not think it would confer a benefit commensurate with the loss that would fall on the State.

1769. Would the State be justified in spending £4,000 per annum more than it received to confer a benefit on that particular district? I should say not.

1770. Would it be cheaper for the State to subsidise them by distributing £4,000 amongst the people there, in order to improve their present means of communication? I should say so; because if you did distribute £4,000 you would arrive at an exact figure, whereas if you construct the railway, you do not know where the expenditure is going to end.

THURSDAY, 9 DECEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The HON. FREDERICK THOMAS HUMPHREY.

The HON. JAMES HOSKINS.

The HON. CHARLES JAMES ROBERTS, C.M.G.

The HON. WILLIAM JOSEPH TRICKETT.

The HON. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

Joseph William Boulton, Superintendent of Public Watering-places and Artesian Bores, Department of Mines, sworn, and examined:—

J. W.
Boulton.
9 Dec., 1897.

1771. *Chairman.*] The limit of your artesian water to the south and east is practically a line from Wallangra down to Warialda and south-westerly to Gilgandra, and then going in a westerly direction from Gilgandra, it passes out towards the Cobar country? Yes; we have only been able to get it across the Macquarie in one bore yet.

1772. When from Gilgandra it gets to the Macquarie, that is the limit? Yes; the Warren bore is the one I am speaking of.

1773. The area of the country under consideration extends from Brewarrina to Byrock; taking those two points on the west, and extending easterly along the line just laid down as the eastern boundary of the artesian water, will you tell us where the bores have been a failure, and where they have been a success? I should like to point out that between the North-western railway-line and the Macquarie River, and the Barwon on the north, we have not had a successful bore. The whole of the country to the west of the Bogan—between the Bogan and the railway line—in shown as the older formation, in which it is hopeless to seek for artesian water. Then, east of the Bogan extending up to the Marra Creek, there is a patch of tertiary country running the whole way from the Barwon right down nearly as far as Nevertire. We have put two bores down—one at Narraween and another at a place called Tarrion—neither of which was successful. The Tarrion bore was a failure, and from the Narraween bore we just got a flow and that was all—the water just trickled over the surface.

1774. The Narraween bore would be somewhat south of Brewarrina? It is right on the Marra, pretty well due east from Byrock.

1775. And the Tarrion bore? That is south from Brewarrina about 8 miles.

1776. The Tarrion bore was an absolute failure;—what did you get into? Into granite. We got down to the bed rock.

1777.

J. W.
Boulton.
9 Dec., 1897.

1777. In the case of the second bore at Narraween you got some result? Yes, just a flow; that was all. A very good pumping supply, no doubt. We have not put a pump on it yet. Since that bore was put down, Mr. Pittman has made an examination of the country on the line between the Bogan and the railway, and a discovery was made of some extinct mud springs on Willaroon. That would be pretty well east from Coolabah station, and there is no doubt that portion of the artesian basin comes in there very close to the railway line, and sometime or other I suppose a trial will be made. The mud springs at the time of our visit were practically extinct to all appearances, but we opened them up and they flowed readily.

1778. Is that the nearest place to Byrock on the south that you have any knowledge of? Yes.

1779. And Tarrion would be virtually on the line from Byrock to Brewarrina? Yes.

1780. And between Tarrion and Byrock have you any information? Between them there is no chance of artesian water, because at Charlton and also at Gungahlin, the granite outcrops in the bed of the Bogan itself, and there are several outcrops of granite in between Charlton and Byrock.

1781. That is virtually all the information you can give us with regard to artesian boring? Yes, on that particular line.

1782. Would you care to express an opinion with regard to the class of country there? It is very hard scrubby country between Byrock and Charlton, and also between Byrock and Gungahlin, until you get pretty close up to the Bogan, and then you get on to the river flats which are fairly good; but there is a terrible amount of that box scrub growing all through the country.

1783. Do you regard it as good country between Byrock and Brewarrina? From the other side of the Bogan into Brewarrina it is good.

1784. Is it poor country south from the Bogan? From the Bogan to Byrock, I would not call it first-class country.

1785. Do you regard it as purely pastoral country? Entirely so; although I may say that at the Government tank 16 miles from Byrock, between that place and Charlton, the Crown tenant has grown wheat for hay very successfully. He has grown hay crops on a small area of about 4 acres.

1786. There has not been sufficient agriculture to justify you in expressing a definite opinion? No.

1787. Are we justified then in believing it to be your opinion that from Brewarrina to the Bogan it is a fair pastoral country, and from the Bogan to Byrock it is inferior pastoral country? Yes. There are many thousands of acres of the Byrock country you could not put a plough into, because it consists of hard quartz ridges.

1788. Going east from the Bogan towards the Macquarie, will you tell us what your operations have been there? Following the rivers up from their junction with the Barwon: on the Marthaguy we have the Carinda bore, and on the Macquarie, we have the Warren bore. These two bores are separated by about 130 miles, and the whole of this intermediate country would be artesian water-bearing. On the Castlereagh we have the Euroka bore, about 8 miles from the Castlereagh; and then, following the river after you get to Coonamble, and then to Gilgandra, there are three bores on the river. Between the Castlereagh and the Marthaguy and the Macquarie, we have the Tenandra bore and the Bourbah bore. They are pretty low down. Then between the Marthaguy and the Castlereagh again, we have the Collie bore. That is in progress, and they are down about 2,700 feet. That is due west of Gilgandra.

1789. Then going east from that again? We get nothing then until we reach the other side of the Namoi, and then we have the Woolabra bore, on the Narrabri to Moree railway line, and the Bullyeroi bore on the Thalaba Creek.

1790. The Bullyeroi would be pretty well north of Wee Waa? Yes. The Bullyeroi is near a place called Meriwinbone. It is on the Thalaba Creek. It would be pretty well south-east from Collarendabri, and north-west from Wee Waa. Then we have the bore at Moree. Then north of that we have bores at Wallon, Gilgai, Dolgelly, Tulloona, and another one will be put down between the Gilgai Creek and the Dolgelly bore. That has not been commenced yet.

1791. Does that fairly well prove the country between the Macintyre and Moree? Yes; Dolgelly is the nearest bore to the Macintyre. Of course that will give us a further line. But Mr. Pittman is of opinion that the water-bearing rocks are a long way the other side of the Macintyre.

1792. You mean north? Yes, north-east altogether; so that we should be well within the basin at that place.

1793. You have nothing east from Warialda? No; Mr. Pittman made a careful examination of the country about Warialda, and he was of opinion that that was the extreme limit of the basin.

1794. Then the line goes down tolerably direct to Gilgandra? Fairly direct to there. There is a lot of country there that is overlaid with basalt, and basaltic floaters, so that you cannot see what it is until you actually try it with the drill. Then beyond Collarendabri, going out in that direction, we have on the old 60-mile track the Moongulla, and the Dungle Ridge bores, and right on the border the Finger-post bore.

1795. Near Angledool? The other side of Angledool, to the eastward of Bokhara. We have a bore at Bokhara, which is also called Goodooga. Then between Walgett and the Narran, we have a very good bore where we have just got the flow at a place called Moorameena, a little north-west of Walgett. There are several private bores in the same locality.

1796. The country is proved to the north and north-west of the Barwon River? We might say that the whole of the country between the Barwon and the Queensland border to the Bourke-Hungerford Road, has been proved to be artesian water-bearing. There has been one failure in that area, and that is the Whitewood bore directly north of Brewarrina. That would be on the same line of rock as the Bendemere bore.

1797. Going down to the south-western portion of the area is Warren supposed to be on the limit? No; I think the limit is between Warren and Nevertire.

1798. The line from Gilgandra then would pass north of Nevertire and south of Warren? Yes.

1799. A little south-west of Gilgandra? It would go more south than Gilgandra, in the direction of Dubbo, and then go north.

1800. It would go south immediately it left Gilgandra? Yes; it would go southerly, because there is the bore at Ballymore, which is 20 miles beyond Dubbo.

1801. Then it must go half way between Gilgandra and Dubbo? Yes, fully that.

1802. Looking at the map, you will see a railway line marked from Woolabra to Collarendabri, also a line from Narrabri to Pilliga and Walgett, and a line from Warren to Coonamble; will those three lines all be in country where artesian water is possible? Yes.

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Boulton.
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1803. And as far as your information leads you to believe, the line from Byrock to Brewarrina will not be? As far as the information at our disposal goes, I consider there would be no chance of getting artesian water on the line from Byrock to Brewarrina.
1804. What has been the effect of bores in this country? I do not think that people at all realise what they have got in the matter of artesian boring yet. The only practical experiment that has been made to utilise the water to the fullest extent has been at Pera, and there we have been more than successful. The whole of the blocks that were thrown open have been taken up, with one exception. We are throwing open some blocks at the Euroka bore, and some at Tenandra, and also at Woolabra for small settlement on the same scale as at Pera.
1805. Pera still remains your practical example? Yes.
1806. Apart from irrigation, what do you think will be the effect of artesian water in the country? It will enable the pastoralists to carry 20 per cent. more sheep than they do at present.
1807. *Mr. Lee.*] Does it do so? I do not think it does at present, because I do not think they are dealing with the matter in a practical way.
1808. As a matter of fact, are there not, at this moment, runs upon which they have artesian water where the sheep are dying in hundreds from want of grass? That may be; it has been an extreme season.
1809. Has the artesian water been of any benefit? It has, undoubtedly. You carry the water through your paddocks, and you have a double frontage to the drain, which is far superior to any river. You do not run the risk of sheep bogging; and you do not have the concentration of sheep in large mobs to one watering-place, and the wool does not suffer to the same extent that it does where the sheep have to concentrate to a tank or well, and there is also the advantage that during the lambing season the ewes are able to bring their lambs to the water here, there, and everywhere, instead of having to bring them to one place. Of course, people who do not understand pastoral work would hardly realise what it means.
1810. It has many advantages, even in good seasons? Yes.
1811. In badly watered country it distributes the sheep, and thereby prevents the concentration of stock? Exactly. Another thing is, you can have your stock in a very much smaller paddock, and the stock, when they have the water through the paddock do not travel to the extent they otherwise would, and neither do they destroy so much food. They destroy more grass tramping to and from the water than, perhaps, they eat.
1812. These advantages seem very good in theory; but have they been really proved? I think they have in a few instances. There are station-managers and station-managers. One man will deal with the thing in a practical manner, and the other will miss it.
1813. Has not this taken place—that in consequence of the wonderful advantage afforded by a flow of water in country previously dry, station-owners, in moderate seasons, have been induced to put a larger number of stock on their runs? I would not like to say that, because I have not had experience of it. I am thinking of one station particularly, between Bourke and Barrington, where they seem to have the most intelligent way of dealing with artesian water that I have seen. They have over 30 miles of drains running through their country and they were enabled to carry sheep much longer. During the past drought they would otherwise have been compelled to sell much sooner than they did.
1814. *Mr. Hoskins.*] Does the Government make any charge for the use of the artesian water? Yes; for travelling stock.
1815. In some of the places where they have artesian wells, is not the water allowed to run to waste? I do not know whether you would call it running to waste. The water is allowed to go down the creeks, and the people below derive benefit from it. During the last period of drought the Minister gave directions that the whole of the bores were to be allowed to flow full on.
1816. Does anybody pay for the use of the water coming from the bore at Moree? No; the only people who pay for that water are those having travelling stock. We are cutting up the land there for an irrigation farm.
1817. Has it ever been represented to you that artesian water makes stock pot-bellied, and causes them to lose fat? I have never heard so. I have never heard a single pastoralist make such a complaint.
1818. *Mr. Lee.*] You described the artesian area on the eastern side of the Barwon? Yes.
1819. Some of those bores have been put down for many years, and the station-owners, consequently, have had the fullest opportunity of proving what benefits are to be derived from them? To the east of Barwon, on the Macintyre, there are only one or two station private bores at the outside.
1820. But all through that country, within the artesian area, there are Government bores, and station bores? Yes.
1821. Can you state with any degree of definiteness whether that country is carrying more stock than it was before artesian water was obtained? I could not say. I do not think it is at the present moment.
1822. Does artesian boring bring settlement, bring population, and increase the productiveness of the country? That is what the effect should be.
1823. Have you any data to enable you to say conclusively one way or the other? No.
1824. As the subject under consideration involves the country out towards the Queensland border and the other adjacent districts within the artesian area, have you any reason to suppose that the country would become either more suitable for carrying stock or capable of carrying larger numbers of stock? I think that, with the smaller holdings and with the better improvements and the larger supplies of water which the bores will enable pastoralists to have on the runs, the country will certainly carry more stock; because that is the experience of every pastoralist, that the more water you have and the smaller your paddocks, the more stock you can carry. That is really the lesson that the cutting up of the land into these selections is teaching us. The country that was previously under the Crown tenant is carrying now far more stock under the smaller man, taking it all through.
1825. Are you aware that there is a very unfortunate state of affairs existing out in that country at the present time on the western side of the Barwon? Yes, it is very bad.
1826. You are aware that the loss in stock going on at the present time is very considerable? Yes.
1827. Almost threatening to be one of the worst droughts the country has ever seen? Yes.
1828. That country has had the benefit of artesian water for some years and it does not appear to have mitigated the evil? But they have had an exceptional season. The station of which I used to be manager lost last season 50,000 sheep, and unless something happens they will lose the whole lot; and the station is a well-improved one.

J. W.
Boulbee.
9 Dec., 1897.

1829. The seasons are no worse now than they were years ago before we had any artesian water? I do not remember that there has been such a bad drought since 1879.

1830. We have to take this view of the matter, in considering the construction of a railway, we are told that the country affected will furnish a large traffic in wool. We want to know if it is possible that the country will be habitable under all conditions, and whether the intelligent expenditure of money that has gone on there in the past will be the means of enabling that country to be more reliable than it has been? There is no question that the whole of the country covered by the proposed railway lines is far and away superior as a pastoral country to the country to the west of the Barwon of which I have been speaking. There is no comparison. I was speaking of the country out west beyond the Warrego, or west from the Bourke-Barrigun Road. All that country is suffering severely from drought; but even in the best of seasons it is not comparable with the country in the central division affected by the proposed railway lines. Besides, I believe that the country from Coonamble to Warren is as good agricultural country as you could get anywhere.

1831. But I am speaking of the hundreds of miles of country in a straight line from Brewarrina to the Queensland border? The country to the east of a line from Brewarrina to the Queensland border is very much superior to the country to the west.

1832. But it is now suffering very severely from drought? Yes; it is suffering very badly.

1833. Prior to entering the Public Service, you were a resident out there? Yes.

1834. Before the sinking of artesian bores, droughts came periodically, and the losses in stock varied from 25 to 50 per cent.? Yes.

1835. Does not precisely the same thing go on now. Though the bores have been put down, is not the present drought likely to cause a loss in stock of 50 per cent.? I would not like to say the loss would be as high as 50 per cent all round.

1836. I want to know what alterations the artesian water has made, and whether it has changed the position as it ought to have done? You must remember that the conditions under which the land is occupied at the present day, are entirely different from the conditions a few years ago. Under small holdings the country is carrying, you may say, 50 per cent. more stock than it did previously, and if you were to put the country back under the same conditions that existed when the artesian water was first struck, I daresay you would find that the country would not have carried them through a two or three years drought.

MONDAY, 28 MARCH, 1898.

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.

JOHN LIONEL FEGAN, Esq.

The Hon. DANIEL O'CONNOR.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

Charles Louis Shainwald (E. Rich & Co., Ltd.), Sydney, sworn, and further examined:—

1837. *Vice-Chairman.*] When you were last before the Committee you gave some information with reference to the river traffic, and the road traffic reaching Bourke. Since your examination, local evidence has been taken, and a list of stations has been handed in, some of which were apparently omitted from the estimate which was furnished in Sydney;—will you be good enough to look over the list, and say if, in your opinion, the wool specified in that list finds its way to either Bourke or Byrock, by river or by road? All the wool in the return set before me is included in my statement. It is all wool which has been actually shipped.

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Shainwald.
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1838. Would it be included also in Mr. Harper's estimate? That I could not say.

1839. Have you examined Mr. Harper's estimate? The only thing I can say is that, inasmuch as Mr. Harper arrives at the same result as I do, I should say that the wool was included. I compared my evidence with Mr. Harper's on a previous occasion.

1840. And you say that your total agrees with Mr. Harper's? Approximately, not exactly.

1841. You conjecture, therefore, that the whole of the wool in this list would be included in Mr. Harper's estimate of traffic? I should conjecture that it was included from the fact that we both arrive at the same result. I am not prepared to say that the whole of this list is included in Mr. Harper's estimate; but I am prepared to say that it is included in mine.

1842. In your estimate of traffic did you include all the station produce which arrived at Bourke or Byrock by road as well as that which arrived at Bourke by river? Yes.

1843. You confirm the figures as given in your previous examination? They are absolutely correct; they are taken from our books at Bourke.

1844. Would it be possible for traffic other than that which you have included in your estimate from the Brewarrina district, to arrive at either Bourke or Byrock? Not at Bourke. But certain traffic may have reached Byrock, of which I have no exact figures. In my estimate I made allowance for it; but whether my estimate is correct for that small quantity of traffic I cannot say.

1845. With regard to the river freights the evidence has been somewhat conflicting; what are the prevailing rates at the present time? From 20s. to 25s. I might possibly remove a source of conflict in the minds both of the Committee and of other witnesses who have given evidence locally, if I pointed out that the rates of 20s. and 25s. a ton from Bourke include river freight plus the commission charges and delivery to the ship's side or warehouse. When I say that the rate is 20s. or 25s., I mean that that is the whole charge of handling the produce from the time it leaves the growers until it reaches the agent in Sydney.

1846. Does it include insurance? No. For example we say to the growers "The rate from Brewarrina is 20s. a ton, including all charges excepting insurance and trainage. The 20s. covers the actual rates paid by steamer, the haulage charges at Bourke, the cartage from the river bank to the railway at Bourke, our commission charges in Bourke and Sydney, and cartage from Darling Harbour into the store at Sydney." We calculate that our commission on all these charges, and delivery into the store at Sydney is 2s. 6d. a ton. We calculate the haulage at Bourke at 9d. a ton; the cartage from the river-bank to the railway at Bourke, 2s. a ton. These three charges come to 5s. 3d. If you deduct them from the 20s. which we charge all through, it leaves the actual river-freight at 14s. 9d. on ordinary occasions. I am speaking of Brewarrina, below the Fisheries, as the shipping point.

1847.

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1847. What about the produce reaching Brewarrina by river, and transferred there? When the river is not navigable through, as is the case on occasions, we make an additional charge for landing the wool or cargo at Brewarrina, carting it across to the Fisheries, and reloading it below the Fisheries.
1848. What is the charge for that? It depends upon circumstances. It depends upon what through rate we get from the upper river. It is a matter of the through rate. We make a through rate when the river is navigable throughout, and another rate when the river is not navigable and when we have to re-ship. When competition compels it we make no charge for that re-shipment.
1849. Does the trainage include delivery into the wool-brokers' stores? Yes.
1850. Therefore, when you include that in your charge, it amounts to nothing? It does in a way, because we are responsible for the wool until it reaches the warehouse.
1851. Your responsibility continues, but that is all? There is a certain amount of clerical work to be done, although we do not make a specific charge. We have to maintain a clerical staff to advise the wool in Sydney, to inspect it, and see that it arrives properly. We have also to submit to any reasonable claim which the consignee may make, so that the cost is considerable in the way of keeping up a staff. We make no specific charge to the shipper for that service.
1852. What is the through rate to Sydney *via* the Murray Bridge, or Morgan, from Brewarrina? There is no established through rate. It will depend wholly upon the condition of the river.
1853. Assuming the river to be navigable as far as Brewarrina, what would be the cost of obtaining merchandise by that route? That also is hampered by conditions, because there is no fixed rate. I could give you a maximum and a minimum; but no rate could be fixed with certainty. It would depend a great deal upon the height of the river, the term of navigation, and the rates of insurance, which are sometimes very heavy. We have had freight from Sydney to Brewarrina, by the route you name, as low as £3 10s.
1854. What would be the cost of sending wool from Brewarrina to Sydney, by that route, and under favourable conditions, and in the absence of competition? I could not arrive at that; it would be merely the expression of an opinion which would be of no value to you.
1855. Supposing wool were sent to a South Australian seaport, what would be the charge, without specifying any port? I should say from £3 10s. to £4 a ton. That is purely a matter of opinion.
1856. Will you explain why the wool comes to Sydney now, by way of Bourke, the freight being higher by rail than it would be by river? The uncertainty of navigation, the time of navigation, and the heavy rates of insurance.
1857. Do you think it probable that the wool from the Brewarrina district, which is at present sent from Bourke, would be sent by rail in the event of the proposed branch from Byrock to Brewarrina being constructed,—or would much of it go past Brewarrina and Bourke to South Australia? As a steam-boat owner I should say that if competition of that kind presented itself we must fight it. We must make every effort to obtain the traffic if necessary, and take it to South Australia, if it were forced upon us.
1858. In order that you may retain the river traffic between Brewarrina and Bourke? Yes.
1859. You would not be satisfied to retain the traffic between Brewarrina and Walgett, shipping at Brewarrina instead of at Bourke? It would not pay us with the fleet we have. The traffic would not be large enough.
1860. How do you arrive at your estimate of 6½ bales to the ton? I took the actual weighbills as supplied to us by the station-owners, and totalled the number of bales, greasy and scoured, dividing it by the number of tons railed, and gave that result.
1861. You have no doubt as to the accuracy of your figures? No, I consider that they are absolutely correct.
1862. Did the river steamer "Cato," in which you have an interest, earn during a period of fourteen months a sum of over £4,000? I cannot say positively that I did have an interest at the time, although I should have some knowledge of the running of the vessel from my connection with the firm of Rich & Company, Limited, who are, or were, the agents. I question the correctness of the figures. I was away from the Colony in part of 1891, and I cannot absolutely refute the statement; but Mr. Rich, the managing director of our company, can, I believe, if called upon, say whether or not it is correct. As a matter of opinion, I fail to see how it would be actually possible for the boat to earn the money. The "Cato" and barge when full will carry 700 bales of wool, which is equal to 110 tons of greasy and 85 tons of scoured. To earn such a sum as £4,443 would mean that she would have to carry, on the basis of 25s. a ton freight, all greasy wool, some 3,550 tons. With full loads, which the boats get but seldom, this means somewhat over thirty-two voyages, which has not been accomplished by any one boat in any one year.
1863. Have you taken the traffic one way only? I know it has never occurred that a boat has taken thirty-two voyages and has got a full load every time. I do not think any boat in our fleet ever made thirty-two voyages in a year. I might add to that statement that if Mr. Kerrigan has included the profits on the merchandise which the boat may have carried in connection with hawking business, it would be misleading to the Committee.
1864. What has been your experience since the owners of the river boats formed a company under the title of George White & Co.? My experience has been that they made money in 1892, 1893, and 1894, and that they have lost heavily ever since up to this minute.
1865. Notwithstanding the non-competitive rates? Yes.
1866. Have you distributed any profits during the last past three years? No.
1867. If you have been unable to distribute any profits during the past three years, would it be possible for you to compete against a railway from Byrock to Brewarrina, carrying at about half your present rates? I contend that the conditions would be wholly altered. We should not, as at present, content ourselves with quoting only the rate to Bourke—we should quote from Brewarrina to a South Australian seaport, and I am satisfied that going to one of those ports we could compete with any railway from Brewarrina to Sydney.
1868. Assuming that the growers desired to send their wool to Sydney, would you in that case be able to compete? I think so. The ocean freight from Sydney to Adelaide to-day is only 7s.
1869. You think you would be able to compete against the railway conveying the freight by river to South Australia, and thence around to Sydney? Yes.
1870. I understand that this is the case—that at present it suits you to send all the station produce which you control by rail to Sydney; but that in the event of competition with the railway you could quote terms which would enable you to compete successfully against it? Quite so.
- 1871.

1871. *Mr. Hoskins.*] But freights from Adelaide to Europe would be higher than from Sydney to Europe? There is not very much difference at the height of the wool season.
1872. There would be a difference of 5s. a ton would there not? There would be that difference.
1873. Then, on the basis of the last three years, it is questionable whether you would be able to make any profit at all if you were obliged to quote cutting rates? We have not made money during the last three years, because there has been no river to make it on. Once we got water we should be able to compete with the railway without any question.
1874. You know that more wool than ever is being sold in the Sydney market at the present time? Yes.
1875. Sydney is undoubtedly the best wool market in Australia? Yes.

C. L.
Shainwald.
28 Mar., 1898.

TUESDAY, 29 MARCH, 1898.

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

Charles Louis Shainwald (E. Rich and Co., Ltd.), Sydney, sworn, and further examined:—

1876. *Mr. Wright.*] You were asked yesterday if you could furnish certain returns to the Committee;— have you anything prepared? No. It was impossible for me to get what you wanted in the time.
1877. You have seen a copy of the *Brewarrina Argus*? Yes.
1878. Have you seen the evidence given at Brewarrina before the Sectional Committee as to the wool traffic of the district? Yes.
1879. Did you go through any of the clips named? Yes, generally.
1880. How does the evidence given accord with your ideas as to the quantity of wool sent from the various stations? Looking at the returns generally they seem fairly correct.
1881. How far is Quantambone shed below Brewarrina? I cannot say with certainty; but it is not on the river. Their wool is carted into Brewarrina.
1882. Did you have the contract for the Tallywanta wool for any length of time? Yes.
1883. It is returned at 1,126 bales;—is that substantially correct, or is it an over-statement? I could not say from memory.
1884. The return is for the season of 1894;—was that an exceptionally good year? I consider that 1894 was an exceedingly heavy year.
1885. Does the Brenda wool come into Bourke, or does it go to Brewarrina? To both places. We have had the contract for some years to take it by road to Brewarrina, and thence, river permitting, by steamer to Bourke, or, river not permitting, direct to Bourke.
1886. What is the cost from Brenda to Bourke by road, and from Brenda to Brewarrina by road? From Brenda to Bourke the cost is, approximately, £3 per ton; from Brenda to Brewarrina it would be from 35s. to 40s. per ton.
1887. Brewarrina is the natural destination of that wool under almost any circumstances? I should say so, except during floods.
1888. Have you had the Boorooma wool? Yes.
1889. Have you any idea what number of bales they send away each year? I can only speak approximately.
1890. Their return is 1,897 bales? I should not like to say anything about it from memory.
1891. Have you ever had a contract for the Gingie wool? Yes.
1892. Have you any idea what they get each year? The clip varies very much; but I could not state what it is.
1893. They are returned at 2,195 bales? I should think that would be for an exceptional year.
1894. How far is Llanillo from Walgett? I think about 40 miles.
1895. If the railway were constructed to Brewarrina, do you think that that wool would come down the river to Brewarrina, or would it go to Narrabri? Much would depend upon the condition of the river. The nearest route to the seaboard would be *via* Narrabri.
1896. If there were a river, I suppose it would come to Brewarrina? We should hope to be able to influence it there.
1897. You know Dumble Station? Yes.
1898. The return from Dumble is given at 1,400 bales, and from Ballandoon, which is shorn at Dumble, at 300 bales;—you have never had the contract for that wool? No.
1899. But you supply the woolpacks? Occasionally.
1900. Have you ever supplied 1,700 woolpacks a year? I do not think our firm has ever supplied so large a number as that in one year.
1901. Do you know Milroy Station? Yes.
1902. Have you had the contract for that wool? Yes.
1903. Have you any idea as to the number of bales they shear there per annum? I am afraid I cannot give you the figures without my books.
1904. Have you had the Bundaleer wool? We have had the Bundaleer wool; but it goes to Brisbane now.
1905. You get no Queensland wool now? We get some; but not *via* Brewarrina.
1906. Do the Railway Commissioners still give a rebate of £2 a ton upon Queensland wool? They give a certain rebate; but I am not prepared to say what it is. I can say that it is not £2 a ton; but I should not like to say whether it is more or less.
1907. They give a certain rebate in order to meet the Queensland Border duty? Yes.
1908. You do not care to state what it is? Yes.
1909. Has this rebate enabled you to influence much wool from Queensland to New South Wales? It has enabled us to keep a certain proportion of the wool.
1910. But not all? Not all. I deal with that matter in a statement which I have prepared, and which bears also upon the evidence given at Brewarrina.

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1911. You stated yesterday that the returns you gave were approximately very close to those of Mr. Harper? Yes.

1912. The evidence given before the Sectional Committee challenges both your statements and those of Mr. Harper. The witnesses examined say that a much larger quantity of wool is obtained than either of you give credit for, and they say that if the proposed railway were made a very large quantity of additional wool would be secured;—have you read carefully the statements published in the *Brewarrina Argus*? Yes; I have examined them closely.

1913. Have they shaken your belief in the correctness of your own returns and of those of Mr. Harper? No. The statement I made was prepared from the figures which appear in the books of my company. It was not my personal opinion that I gave you.

1914. Your company have had, for a number of years, practically, the entire command of the traffic of the territory with which we are now concerned? Yes, practically.

1915. You should know almost to a ton, how much goes up the river, and how much comes down the river? Yes, very closely.

1916. Having had the books of your firm at your disposal, you feel satisfied that your statements as to the inwards and outwards traffic of the district are approximately correct? Yes.

1917. You said something yesterday about Mr. Kerrigan's evidence? Yes. I refer to his evidence in the statement which I have prepared, and which, with your permission, I will now read; it is as follows:—

IN reference to the local evidence given before the Sectional Committee at Brewarrina, I find it necessary, in justice to myself, to rebut certain statements made by other witnesses.

These I now propose to deal with categorically as follows:—

Mr. Jameson in his return No. 4, covering alleged Queensland Border wool which would be sent to Brewarrina, claims, Fernlee, Coombura, Wooleerina, and Bundaleer. I contend, and am prepared to prove, that the wool from none of these four stations would reach the Brewarrina railway. To induce the wool into the New South Wales railway from these very stations the New South Wales Railway Department made a special concession almost equal to the amount of the Border Tax imposed, but even this concession was not sufficient to bring the traffic to the New South Wales line. It is quite unlikely that the same wool will be influenced to the Brewarrina railway when exactly the same conditions exist. Mr. Jameson may reply that the Border Tax will be abolished; if this is so the New South Wales rail rate must and will be advanced so that there is no advantage.

These four stations wipe out fully four-fifths of the additional traffic which Mr. Jameson claims from this source.

Mr. Kerrigan states (apparently without any reservation in his evidence) that it takes 8 B/- scoured wool and 5 B/- greasy wool to weigh a ton. I refer the Committee to my previous statement wherein it is shown on figures carefully prepared from the books of my company, that taking the average of wool from the district under discussion it requires 6½ B/- mixed to weigh a ton. For 5 B/- greasy to weigh a ton it would mean 4 cwt. per bale, and I am satisfied if Mr. Kerrigan will examine the matter he will not deny that the bales of greasy wool that weigh 4 cwt. each are very few and far between. Generality is rather between 3 cwt. 2 qrs. and 3 cwt. 3 qrs.

Mr. Kerrigan, in his evidence, states that the lowest fee the company he belongs to (that is, I assume, G. White & Co.) has carried goods, &c., was a £1 a ton. I must take issue on this statement and deny its accuracy. The fixing of the rates has been always placed in the hands of the Bourke office of E. Rich & Company (Limited), the agents for the boat-owners, and at no time has Mr. Kerrigan had authority to fix rates, nor is he in position to state, with absolute accuracy, what the rates have or have not been.

I have already shown the Committee that even granting the minimum rate to be 20/- per ton the deductions for haulage, cartage, forwarding charges, and delivery to ship's side, or warehouse Sydney, leave the steam-boat-owner a net freight of only 14/3 per ton.

Mr. Kerrigan is quoted to have stated that the boats are run under the name of G. White & Co., but that Messrs. E. Rich & Company (Limited), have shares. As this is a most damaging statement and absolutely incorrect I am compelled to give it unqualified denial. The firm of E. Rich & Company (Limited), have never been stock-holders in steam-boat property and are not connected with G. White & Co., in any other capacity than as the agents of this concern.

Mr. Kerrigan is stated to have said that he has as much to do with the boats as myself, thereby apparently conveying an impression upon the Committee that he was in as good position as myself to state the absolute facts. I wish, therefore, again to emphasise the fact that rates in connection with the steamer traffic are absolutely fixed by the Bourke office of E. Rich & Company (Limited), over which Mr. Kerrigan has no control, whereas my management is subject only to the instructions of my board of directors. Mr. Kerrigan is strictly under my orders and has absolutely no independent powers or discretionary rights.

1918. Can you give the Committee any information in regard to Mr. Kerrigan's statement of the earnings of the steamer "Cato"? I can add nothing to what was said yesterday. I can only make a deduction from the premises.

1919. Are you satisfied, from your knowledge of the trade, that neither that boat nor any other boat could earn £4,000 in fourteen months? I think it is impossible that the steamer could have earned that sum in the time.

1920. What is the greatest number of trips made by a steamer between Bourke and Brewarrina in any year? I should say twenty.

1921. Would that number of trips require a full river all the year round? For the greater part of the year.

1922. Given a full river for the whole year, how many trips could both make in twelve months? Allowing for delays in the loading and discharging of cargo?

1923. Yes? Under such conditions a boat might make thirty or thirty-two trips.

1924. That would be an abnormal state of affairs? Yes, absolutely.

1925. If the "Cato" carried a full cargo both ways, and made the maximum number of trips, do you think she could earn £4,000 in fourteen months? I do not think she could earn that amount by carrying cargo. She might earn that sum by carrying cargo, and by the profits on merchandise.

1926. It would be impossible for her to earn such an amount in freight? Yes.

1927. These steamers do a certain amount of hawking? Yes.

1928. If there is a chance of selling 20 or 30 tons of a particular class of goods upon a trip, it is the practice to put those goods on board and allow the captain to sell them at a fixed rate? Yes.

1929. Your contention is that while the "Cato" may have earned £4,000 within fourteen months, part of that amount was probably derived from profits on the sale of cargo? Yes.

1930. You are not prepared to deny that the steamer earned £4,000? No.

1931. You have dealt with Mr. Jameson's number 4 statement. May I now refer you to his statement of the goods and wool traffic. He traverses Mr. Harper's figures, and calculates that instead of there being 5,434 tons of freight there would be at least 10,000 tons of freight;—in your evidence you put the inwards and outwards traffic at about 6,000 tons? I think it would be about that.

1932. In giving evidence before the Sectional Committee which inquired into a proposal to lock the Darling, your agent, Mr. Kerrigan, said that the inwards and outwards traffic would be about 10,000 tons;—you say that it would not be more than about 6,000 tons? Yes.

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1933. Do you still feel confident that your estimate, being based upon actual figures, is a correct one? Yes.

1934. I suppose you know nothing about the stock traffic of the district? I cannot deal with that.

1935. To whose evidence would you attach most importance, to that of a railway expert, whose statements were based upon figures obtained from the books of the Department, or to that of Mr. Jameson revised by Mr. Kerrigan? To that of a railway expert, because his evidence would not be a matter of opinion.

1936. Can you tell us anything about the stock route from the Narran and the country north and north-west of Brewarrina? I do not think I can give evidence with any definiteness.

1937. Does any large number of stock come from that district into Bourke? The stock west of the Culgoa comes to Bourke.

1938. To be trucked? Yes.

1939. And some of it is consumed at the Bourke Meat Works? Yes. They naturally take a good deal of the stock.

1940. A great many stock would come to Bourke even if the railway were constructed to Brewarrina? Yes. There is some risk in crossing the Culgoa, the Biree, and the Bokhara, and for that reason stock-owners would prefer to come to Bourke. There is a good road to Bourke down the Culgoa.

1941. I suppose you know practically nothing about the stock coming to Brewarrina? No.

1942. You are aware that a great deal of the stock passing through Brewarrina has gone to stations other than Byrock? Yes. Some of it goes down the Bogan to Gongolgon, and on to Nyngan or Dubbo, where there are meat works. If you made Brewarrina a trucking depôt you would of course catch a certain portion of the stock traffic.

1943. A considerable quantity of stock goes through Brewarrina from the northern parts of the colony and from Queensland? Yes. Brewarrina is situated upon one of the main stock routes.

1944. When the stock arrives at Brewarrina it disperses, some of it going down the Bogan to Nyngan, some of it going to Dubbo, and some of it going through Warren to Nevertire? Yes.

1945. If the railway were constructed to Brewarrina, do you think the whole of that stock would be trucked at Brewarrina? I do not. No doubt a great deal of stock would be trucked there; but I do not think it would all be trucked there.

1946. You think that a good deal would travel further on? Yes; but how many would depend upon the season.

1947. Is it a fact that owing to the poor character of the country between Brewarrina and Byrock, stock have been driven to Bourke, and travelled from there to Byrock? I cannot say.

1948. But you are not in a position to deny it? I am not in a position to deny it.

1949. Have you ever been north of Brewarrina? Yes; I have been to Goodooga, Currawillinghi, and to Bundaleer.

1950. Do you think that the interests of the district are likely to change? No; except that in the future there may be agricultural interests there.

1951. Do you think that the district is likely to continue for many years a first-class pastoral district? Yes.

1952. Is there any likelihood of the country being divided into smaller areas, and thus carrying a larger number of stock? I do not think one can look for any large increase in the carrying capacity of the district generally.

1953. Do you consider the district fairly well improved? Yes.

1954. It is carrying pretty well its maximum number of stock? It would, no doubt, be able to carry more stock if the runs were subdivided.

1955. That would largely increase the carrying capacity? Not largely, but moderately.

1956. The present leases have nineteen or twenty years' currency? About that.

1957. Until they expire there is not much chance of subdivision? Not unless there is an alteration of the Land Law.

1958. Is this country ever likely to develop into an agricultural district? I think it is capable of such a development.

1959. The country round the Narran, the Biree, and the Bokhara is very rich? Yes.

1960. Is the rainfall sufficient for wheat? I do not know so much about wheat as about other cereals. There is more black soil than red, and I think the red soil is the best for wheat.

1961. Looking at the matter apart from the interests of the firm you represent, and the interests of Bourke, do you think that the Government would be justified in spending between £120,000 and £130,000 in giving railway communication to Brewarrina? I do not think there would be any adequate return from the expenditure.

1962. You do not see much prospect of the population of the district largely increasing? Not in the immediate future.

1963. Or of its production largely increasing? No.

1964. I suppose your contention is that the people of Brewarrina have very good communication with the railway by means of the river now? Yes.

1965. The people of Brewarrina and of the district north of it lay great stress upon the argument that the country is good fattening country, but that the 60 miles of poorly-watered and poorly-grassed country between Brewarrina and Byrock prevent them from sending fat stock to market? The country between Brewarrina and Byrock may be poorly watered, but the country between Brewarrina and Bourke is certainly not badly watered.

1966. So that, although there may be some difficulty in sending stock from Brewarrina to Byrock, there is not the same difficulty in sending stock from Brewarrina to Bourke? Not as regards water.

1967. The rate of trucking is the same from Bourke as from Byrock? I think so, but I am not positive about it.

1968. It is said that if the proposed railway were constructed it would take a large part of the traffic which now goes from Bourke to Byrock, but which pays nothing to the revenue, because the rate is the same from Bourke as from Byrock; and that if 14s. or 15s. a ton were charged as a local rate from Brewarrina to Byrock there would be so much gained? I see the force of the contention, but I claim that the river competition would nullify any possible earning of that kind.

1969. You think that the river rates would be cut so fine that a great deal of wool would continue to go down the river? I feel confident of it.

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1970. And therefore there would not be the anticipated gain? Yes.
1971. Even though the tonnage inwards and outwards is more than you and Mr. Harper have estimated, you think that the competition of the steamers would take away a great part of that traffic, and thus reduce the revenue of the railways to at least the amount estimated by you? Yes.
- 1972, *Vice-Chairman.*] How would growers of wool within 10 miles of Bourke reach the Sydney market;— would they truck their wool at Bourke? You refer to people upon the railway line between Bourke and Byrock?
1973. Within 10 miles of that line? There is a siding, I think, 14 miles on the Sydney side of Bourke where the smaller clips are trucked. Other clips are carted into Bourke.
1974. Do the growers send their wool and other produce through an agent or direct? In some cases, direct.
1975. It costs such growers to send their produce to market £4 a ton for greasy wool and £5 a ton for scoured wool, plus the cartage from their stations to the railway stations? Yes.
1976. Would not that be the total cost to them? Yes.
1977. Would not the total cost to the Brewarrina people be the freight from Brewarrina to Sydney, plus the cartage to Brewarrina? And any charges that might be incurred in Brewarrina. It is all right where people are only 10 or 15 miles from the railway station. Such people can cart their own wool; but where a man is 100 miles from a railway station he will employ an agent.
1978. That would have to be done in any case? I think so.
1979. You fixed 14s. 3d. as the net return to the river steamers? Yes.
1980. That is for carrying goods between Brewarrina and Bourke? Yes; upon the basis of 20s. per ton for a through rate.
1981. As a matter of fact, does it not cost the grower 20s. a ton? Yes, certainly.
1982. If the railway charge from Brewarrina to Byrock were 20s. a ton, it would cost him precisely the same amount as he pays now? Yes; he would have nothing to pay besides the railway rate, and any commission charges in Brewarrina.
1983. The steamers only earn 14s. 3d.; but the sender of the wool pays 20s. a ton? Yes.
1984. If the railway rate between Brewarrina and Byrock were 10s. a ton, the sender would save 10s. a ton upon the present charge? Yes; but the difference between 14s. 3d. a ton and 20s. a ton will gradually pass away. As I stated upon a previous occasion, they are now building a wharf at Bourke, and when that wharf is completed the railway will run right down to the river. That will save the cartage at Bourke, and will take 2s. 6d. from 20s. As conditions alter and improve, the river rates must be reduced. The conditions existing now will probably not exist three months hence.
1985. And the rate instead of being 20s. a ton, will be reduced because of the facilities afforded at Bourke? Yes; facilities now near completion.
1986. With regard to the fat stock sent by rail, is it not a fact that where a railway is within a short distance of the centre of a district, small lots of stock are sent away which would not be sent away if there was any long distance to travel? I think that that is so.
1987. Therefore, it is likely that if the railway were taken to Brewarrina the number of small senders would increase? Small consignors.
1988. Small consignors? I have no doubt the number of small consignors would increase.
1989. That might considerably increase the railway earnings? Well, it is point upon which I cannot speak.
1990. What do you think? I cannot say. Stock-trucking is entirely out of my province.
1991. Is the assumption reasonable? Yes.
1992. Of course you are aware that the advocates of this proposal believe that the earnings of the railway will be sufficient to pay not only working expenses, but interest upon the capital cost? Yes.
1993. So earnest apparently are they that they considered that it would not be unreasonable if the Government increased the rents over the whole of the pastoral area embraced within the red line shown upon Mr. Sawyer's map by something like $\frac{1}{4}$ d. an acre. Is that a view that presents itself to you as a fair one? I do not think that the majority of the run-holders, especially the larger run-holders, would consent to any increase of rent.
1994. Not if they were confident that in a very short time the railway would be self-supporting? I think they would like to see a direct *quid pro quo*.
1995. You believe that if the test were made the run-holders would not be prepared to consent to a small addition to their payments? I do not think they would.
1996. Therefore you doubt their *bonâ fides* in giving this evidence? I do not doubt their *bonâ fides*, but I think that probably their judgment is being a little clouded by local pressure and conditions.
1997. Of course, you recognise that the district is a splendid pastoral district, and it is only a question whether the railway earnings will be sufficient to cover working expenses and give a substantial return upon the cost of construction? Yes.
1998. You are confident that it will not do anything of the kind? I think it will not.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and further examined:—

- J. Harper.
29 Mar., 1898.
1999. *Mr. Fegan.*] In your earlier evidence you estimate the goods returns as 2,000 tons at 10s. a ton; how do you arrive at that estimate? From what I know of the quantity of goods actually carried from our railway-stations, and by steamers to Brewarrina.
2000. You have no idea, as to what quantity of goods is carried by steamer? Yes; I had access to the books of the agents for the steamers.
2001. And you find that altogether by rail and by steamer the goods-traffic amounts to 2,000 tons? Yes.
2002. Would it surprise you to hear that the Sectional Committee have been informed at Brewarrina that the goods-traffic amounts to 10,000 tons? I am never surprised at anything of that kind.
2003. I suppose you had some facility for arriving at an approximate estimate of the number of stock sent by rail, by referring to the books in your department? Every travelling stock permit for four years past was examined. This showed us where the stock came from.
2004. How far down the line did you come from Byrock? I did not come any further down than Byrock, because I could not conceive that any stock reaching the line below Byrock would be driven back to be trucked at Byrock. 2005.

2005. Some of the evidence given before the Sectional Committee at Brewarrina was to the effect that large quantities of stock which now went through Brewarrina to Nyngan would be trucked at Brewarrina if the railway were taken to Brewarrina;—do you think there is any likelihood of that? I do not. J. Harper.
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2006. Do you think that the stock coming from the country north of Brewarrina and going to Nyngan and other places, would be trucked at Brewarrina if the railway were taken to that town? It is possible that some of it might; but I should be surprised if it all were. If the stock routes were open to Nyngan, the stock would be travelled over them.
2007. Do you not think that the seasons would have to be exceptionally good for that to be done? No; an average season would allow stock to travel from Nyngan down the river.
2008. What number of stock would go that way? I have no idea.
2009. The number would not be equal to the difference between 1,000 and 3,000 truck-loads? Certainly not. The thing is ridiculous. I do not think that there are as many stock trucked all the way between Nyngan and Byrock.
2010. You say that the estimate which places the stock traffic at 3,000 trucks is an exaggerated one? Yes.
2011. Have you anything to add to the evidence which you gave in regard to the wool clip? Nothing. I arrived at my estimate after an analysis of the books at the various railway stations.
2012. Other witnesses had not that facility? No; the wool traffic was examined clip by clip, and bale by bale, and the books of the various stations were searched to ascertain the quantity trucked.
2013. This is the evidence given before the Sectional Committee at Brewarrina with regard to the trucking of fat sheep:—
Between 13 and 16 per cent.? I have put it at 12 per cent. to be on the safe side, and that would amount to 210,564 fat sheep. Allowing 90 to a truck—and, as a rule, not more than from 80 to 85 would go in a truck, if they were at all fat—that would be 2,339 trucks. I regard that estimate as being within the domain of absolute certainty, and to show that it is so, I may mention that the actual number of fat sheep sent from this district in the twelve months, 1896-7, and trucked at Byrock, Bourke, Nyngan, and Narrabri, when the greater part of the district was suffering from a severe drought, was 161,200, or 1,791 trucks.
- ? The estimate is an exaggerated one. In the season referred to, that was the only part of New South Wales where there was good grass. They assume that the Brewarrina line is the only line to be considered, as if no other extension into the northern part of the Colony were contemplated.
2014. How far would a railway to Brewarrina influence the entry towards Walgett;—do you think it would secure the Walgett traffic? Do you assume that no railway will be constructed in the neighbourhood of Walgett.
2015. Assuming that a railway is constructed to Walgett, or to some place near Walgett, would such a line interfere very greatly with the earnings of the proposed Byrock line? Decidedly. There would then be no traffic coming into the Brewarrina line from the direction of Walgett.
2016. For what reason? A line going towards Walgett would go nearer to the centre of production.
2017. In estimating the wool traffic, you have not left out of consideration, so far as you know, the traffic from any station whose wool clip would come to Brewarrina if the proposed railway were constructed? No. As a matter of fact, I may remind the Committee again that a certain amount of the traffic credited to the Brewarrina line is common to both the Brewarrina and the Walgett line. I have left it to the Committee to decide where that traffic will go.
2018. *Mr. Wright.*] In your first examination did you state that you had taken into consideration all the stock that came through Brewarrina, irrespective of where it was trucked? No. I think what I said was that I had taken the returns from our books. I know that I did not go as far as Nyngan; but I took the returns shown in the books at Girilambone, Byrock, and Bourke.
2019. I suppose you are aware that some of the stock from the Narran has been sent as far as Nevertire and Dubbo? That is quite possible, and I expect that it will go there again.
2020. Am I right in assuming that you have made a liberal allowance for contingencies? Yes; I doubled the actual figures.
2021. You found, by referring to your books, that a certain number of trucks had been used for the stock traffic of the district, and you estimated for double that traffic? Yes.
2022. Therefore, I suppose you consider your estimate a liberal one? Yes.
2023. It is hardly possible that the traffic would exceed your estimate three times? I am sure that it would not. The stock which can be reckoned as likely to be trucked upon the proposed line could not be three times the number I have estimated.
2024. You do not think the actual stock traffic will be four times the estimated stock traffic? No.
2025. Therefore if the local evidence is that 3,500 trucks would be required for the stock traffic of the district, you are of the opinion that that estimate grossly over-states the case? I am of opinion that the witnesses do not know as well as I do what they are talking about.
2026. Will the same remark apply to the local estimate of the wool traffic? I regard my estimate of the wool traffic as absolutely correct. It is based upon figures obtained from the books of the Department.
2027. The local witnesses took an exceptionally good year—the year 1894? I took the years 1892-3, 1893-4, and 1894-5.
2028. Your estimate is based upon actual facts? Yes; I obtained the weights from our books.
2029. You are satisfied of the correctness of your source of information? Yes.
2030. Do you think it possible that if the proposed railway is constructed the river competition will be so keen as to cause the freights to be largely reduced? Yes. I think that in my former evidence I indicated that that would be so. That has happened wherever the railway has come into competition with water carriage.
2031. Suppose you have understated the traffic by 50 per cent., would the river competition be so keen as to take away half the traffic from the railway? The river competition would very seriously interfere with the railway traffic; and you must also take into consideration the probability of an extension from the north-east.
2032. But considering this line by itself, do you think that, except in times when there was no river, it would obtain the whole of the traffic? No.
2033. *Mr. Hoskins.*] Are you of opinion that, if the line were made the river companies would so reduce their freights to Adelaide as to under-bid the railway? Yes; they could do it at any time, so far as rates are concerned.
2034. And they would still obtain a profit? Yes.
- 2035.

- J. Harper. 2035. Do you think that the danger of a diversion of the wool traffic down the Darling and the Murray to Adelaide, is one to be feared? Yes. That is an ever-present danger, and one that we have to take the greatest precautions to protect ourselves from.
- 29 Mar., 1898. 2036. Do you think that it would be increased by constructing the proposed railway? I do not say that it would be increased; but the construction of the proposed railway would make the river competition a little keener.
2037. *Vice-Chairman.*] If the river steamers are not working at a profit, with the prevailing rates, do you think you need be very apprehensive of competition? I fancy that the people who own the steamers are not likely to work them at other than a profit.
2038. Suppose we have been told that, the steam-boat proprietors have not received any dividend for three years? That may not be because of the lowness of the rates. The proprietors of these boats are also interested in steamers trading in other parts of the river.
2039. *Mr. Hoskins.*] The person who gave us that evidence stated that the wool had been taken to Adelaide in competition with the railway? I cannot speak as to the circumstances of the river companies. It is difficult to say how they make their profits. They may make them by distributing goods which they sell themselves.
2040. *Vice-Chairman.*] Do you think it probable that you would have to reduce the railway rates which you have based your estimate upon? Yes. My impression is that, before very long we should have to charge the same rates from Brewarrina as we charge from Bourke, in order to obtain any business at all. Of course, that does not apply to the stock rates.
2041. Are you not in a similar danger, so far as Bourke is concerned? At Bourke we do not compete with the steamers trading between Bourke and Brewarrina. At the present time those steamers can make the rates what they like, subject to the competition of the teamsters. What we should have to fear at Brewarrina would be the possibility of a through rate.
2042. Must not any through rate include the 20s. now paid between Brewarrina and Bourke? Yes; but in the through rate not more than half that amount might be charged.
2043. The ever-present danger you speak of will not be increased by the construction of the proposed railway? That is so; but if we imposed special rates on the Brewarrina railway it is quite possible we should not get the traffic. The rates upon which my estimate is based are arbitrary rates, and the conclusion I have come to is that, before the line has been made very long, we shall have to charge Bourke rates in order to secure the traffic. Otherwise we may find the steamers taking the wool to Adelaide.
2044. That means that you would have to carry free from Brewarrina to Byrock? Yes; the steam-boat proprietors, rather than take their steamers off this length of river, will be prepared to consider the question of taking wool through to Adelaide. The extension of the railway to Brewarrina would interfere with their trade. These attempts to compete with water-carriage have never succeeded anywhere. The attempt has not absolutely succeeded at Bourke, at Hay, or anywhere where the railways touch a navigable stream.
2045. Do you seriously tell the Committee that the steam-boat proprietors will be prepared to carry wool from Brewarrina to Bourke free? No.
2046. That is really the point;—at the present time the prevailing river freight is 22s. 6d. a ton, and it may come down to 20s. a ton? That is between Brewarrina and Byrock.
2047. Do you say that in the event of the railway being constructed from Brewarrina to Byrock the river steamers would carry freight free from Brewarrina to Bourke? I do not say anything of the kind; but if we compete with the river steamers they will have to quote rates through to Adelaide, and we shall have to fix our rates accordingly. To maintain our connection with the traffic of the district we shall have to quote rates as low as their rates.
2048. *Mr. O'Connor.*] But we were told at Brewarrina that if the proposed railway were made they would not avail themselves of any opportunity to send wool to Adelaide? The people at Hay said much the same thing, but to-day they are availing themselves of the river.
2049. *Vice-Chairman.*] You say that 2,000 tons of goods are taken from Bourke up-stream by the steamers; are you aware that in addition to the goods carried by the steamers a large quantity of goods are taken by teamsters? I have already stated that I have included them in my estimate. I have allowed for the whole of the traffic.
2050. In your estimate of the wool traffic what weight have you allowed for the bale? I have based my estimate upon the actual weights as registered by our weigh-bridges.
2051. But how many bales have you allowed to the ton, distinguishing between greasy and scoured? Some of the clips went about $6\frac{1}{2}$ bales to the ton and some $5\frac{1}{2}$ greasy, while as to scoured wool some clips go 8 bales to the ton, and others $7\frac{1}{2}$.
2052. But what is the average number of bales to the ton? For the year 1893-4 the average was about $6\frac{1}{2}$ bales to the ton; in the year 1894-5, about $6\frac{1}{2}$; in the year 1895-6, about $5\frac{3}{4}$ —there was a larger proportion of greasy that year; and in the year 1896-7, about $6\frac{1}{2}$. The average for the four years, taking the greasy and scoured together, was about $6\frac{1}{2}$ bales to the ton.
2053. With regard to the live-stock traffic, have you made any allowance for the small lots that would probably be sent from Brewarrina, and which are not sent now, owing to the distance to be travelled, and to the bad character of the stock route to Byrock? I have allowed for more than double the actual traffic.
2054. Do you think you have made a sufficiently liberal allowance, taking into consideration the probability that large numbers of stock would be sent in small consignments? I think so. In the four years which I have mentioned the average number of truck-loads per annum was 392.
2055. That was from Bourke? From Bourke, Byrock, and Girilambone.
2056. We were told that a large number of sheep are generally removed from the district between June and December, so that the stock returns which are prepared in December do not accurately show the carrying capacity of the district, and the average number depastured;—is that your experience in connection with other districts? No doubt a great many fat sheep and other sheep are sold off the shears before December. However, so far as my returns are concerned, the figures are taken from the actual traffic.
2057. Assuming the area enclosed by the red line shown upon Mr. Sawers' map to be 4,500,000 acres, and its carrying capacity to be 1,500,000 sheep, how much wool might be expected to come from that district, allowing $6\frac{1}{2}$ bales to the ton? I should like to know how many fleeces would go to the bale there. In some

some districts they get twelve bales from 1,000 fleeces, in others fourteen, in others fifteen, and in some as many as seventeen. If the railway returns had been such as to require further checking, or if there had been any doubt about them, I should have endeavoured to ascertain how many bales were obtained from 1,000 fleeces in the district.

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2058. But what is the average number of bales obtained from 1,000 fleeces? It varies from twelve to fifteen, and in some districts goes as high as seventeen.

2059. You have never known it to go above seventeen? Not throughout a whole district. I consider that it requires a good district to produce fifteen bales of wool from 1,000 fleeces.

2060. You have already said that you regard the Brewarrina district as a splendid pastoral district? Yes.

2061. Therefore, we may fairly conclude that fifteen bales of wool would be obtained from 1,000 fleeces there? Yes; but I do not give that as an expert opinion. I do not want to give an expert opinion upon a matter in regard to which I am not an expert.

FRIDAY, 15 APRIL, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
The Hon. JAMES HOSKINS.
The Hon. CHARLES JAMES ROBERTS, C.M.G.
The Hon. WILLIAM JOSEPH TRICKETT.
The Hon. DANIEL O'CONNOR.
HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
JOHN LIONEL FEGAN, Esq.
THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.
FRANCIS AUGUSTUS WRIGHT, Esq.
FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

William Sawers, grazier, sworn, and further examined:—

2062. *Chairman.*] As one of a deputation from Brewarrina, you desire to make a further statement to the Committee? Yes; I should like to correct one or two of my previous statements, and to add to what I have already said. When giving evidence last October I estimated the weight of wool as five and a quarter bales per ton. Mr. Shainwald took objection to that estimate, and gave as the actual average weight six and two-thirds bales per ton. For the sake of convenience in estimating the wool traffic, I counted it all as greasy wool, and applied the rate of 10s. per ton as a local railway rate. It is quite understood that washed wool always pays about one-fourth more than greasy wool. Mr. Shainwald's criticisms, therefore, appear to me to be of no value.

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2063. What difference is there between your estimate of revenue and Mr. Shainwald's? I have not looked into that. Mr. Shainwald attempted to disparage my estimate by showing that the tonnage would be considerably less; but he did not impugn the correctness of my statement as to the number of bales. I do not know what the proportion of washed and greasy wool is.

2064. Therefore, you are not in a position to tell the Committee what it would mean in revenue if we took your figures and what it would mean if we took Mr. Shainwald's? Washed wool always pays more than greasy wool. If we paid 10s. a ton on greasy wool we should be prepared to pay one-fourth more on washed wool, so that the result works out about the same. I desire to refer to some fresh grounds of contention opened by Mr. Shainwald, and in regard to which he was supported by Mr. Harper. The evidence given before the Committee has proved that a local rate of 15s. a ton between Brewarrina and Byrock would prevent river competition, because, to compete with it, the steamers would have to come down to 10s. a ton, and a charge of 5s. for insurance would make the rates equal. Any wool-grower would be willing to pay higher rates to avoid using the river steamers.

2065. Do you contend that the steamers could not carry from Brewarrina to Bourke for 10s. a ton? We have never paid less than 25s. a ton, and the steamer company has not declared a dividend for three years past. I desire to correct the statements which I made on the last occasion in regard to the freight paid last season. I said that my freight had been reduced to 20s. a ton; but I find that I paid 25s. a ton, and I have never paid less than that amount.

2066. Does that charge include insurance? No.

2067. If insurance is a constant charge, you pay 30s. a ton? The charge, including insurance, would be about 30s. a ton. Mr. Shainwald now raises the fresh objection that the river traffic to South Australia would compete against the railway, and in this he was supported by Mr. Harper. Mr. Shainwald, in reply to Question 1867, says: "We should quote from Brewarrina to a South Australian seaport, and I am satisfied that going to one of these ports we should compete with any railway from Brewarrina to Sydney." I hold this to be simply bluff. It now cost wool-growers 105s. to send wool from Brewarrina to Sydney, or, with insurance added, 110s. a ton. If the railway charge from Brewarrina to Byrock were 15s. a ton, the cost of sending wool by rail from Brewarrina to Sydney would be £4 15s. a ton, or 15s. a ton less than we at present pay to send it by way of Bourke. Yet we hear nothing at the present time about wool going to South Australia.

2068. If there would be danger of river competition at Brewarrina it should be still greater at Bourke? Yes.

2069. Are you prepared to say that the river competition at Bourke is not dangerous? I believe that only a small quantity of wool goes down the river from Bourke, and that wool is sent to Melbourne, *via* Echuca, to suit Goldsbrough, Mort, & Co.

2070. Do you know what they pay to send it from Bourke? No.

2071. *Mr. Hoskins.*] Do you not think that if the navigation of the Darling were improved by the construction of locks, wool could be conveyed by steamer from Brewarrina to Morgan for £3 a ton? Not if the Government tried to get back interest upon the money expended. It is better for the Government to spend money in the construction of a railway, the revenue of which will pay the interest on the work, than upon a work from which they will get no return.

2072. *Chairman.*] The Darling has not been locked yet? No; I understand no wool goes to South Australia from Bourke now.

2073.

- W. Sawers. 2073. But some wool goes down the Darling? I believe that for some special reasons Goldsbrough, Mort & Co. send one or two clips to Melbourne *via* Echuca. Mr. Harper was asked (Question 2033): "Are you of opinion that if the line were made the river companies would reduce the freight to Adelaide so as to underbid the railways?" And he replied, "Yes." Further on, in answer to Question 2034, he said that they would still obtain a profit. In my opinion, that answer shows profound ignorance of the conditions of the wool trade. The steamers could not obtain wool from the Brewarrina district for South Australia even if they quoted a lower rate than the railway. A steamer and barges—and this is a point to which I desire to direct the particular attention of the Committee—loaded with wool, would take, on the average, at least a month to reach a South Australian seaport from Brewarrina. Putting the freight at a minimum, I allow £3 per ton from Brewarrina to South Australia, or, with net river insurance, say 23s. a ton—£4 3s. a ton, everything included.
2074. *Mr. Hoskins.*] How can you prove that it would take a steamer and barges a month to go to South Australia? I know that from reliable information. Mr. Shainwald admitted it himself.
2075. He did not say that it would take a month? He admitted to me that if a trip only lasted three weeks it would be extremely rapid and successful, and he told me, in the presence of my friends, that on the average a trip would take a month. I maintain that, on the average, the steamers would not reach a South Australian seaport from Brewarrina in less than a month.
2076. *Chairman.*] When you say "seaport" what do you mean? I am using Mr. Shainwald's words.
2077. The seaport would be Port Adelaide? Yes; because the wool would either have to be shipped from there to England or sent round from there to the eastern colonies. There is no good wool market in South Australia, so that consignments, if not shipped to London, must be sent to either Melbourne or Sydney for sale. The charge for that, including insurance, would be about 10s. a ton. So that the total cost from Brewarrina to Melbourne or Sydney would be £4 13s. a ton, as against £4 15s. a ton by railway—assuming the local charge from Byrock to Brewarrina to be 15s. a ton.
2078. Would it not be cheaper to send wool to Melbourne *via* Echuca? I cannot say, but I think not. I am simply traversing Mr. Shainwald's evidence. The Brewarrina wool-growers and storekeepers have their business and financial arrangements with Sydney houses, so that the wool must of necessity go to Sydney. If it were sent by rail direct, it would be sold in the best wool market in Australia within a week or ten days from the time of its being trucked. If it were sent round to Sydney *via* South Australia about two months would elapse before the wool could be sold. No wool-grower would dream of waiting so long as that to realise on his wool, although the charge *via* South Australia might be less. The extra handling would be intolerable. I have here a letter which I will leave for the information of the Committee giving quotations of insurance from Brewarrina to South Australia.
2079. *Mr. Wright.*] What percentage do you pay from Brewarrina to Bourke for insurance? I believe that the insurance averages about 5s. a ton.
2080. A ton of greasy wool is not worth £100? No. It varies; but I should put down the value at about £60. People generally insure their wool at its full value.
2081. As a matter of fact, the wool does not pay 5s. a ton, but 5s. per cent.? Mr. Bacon has paid 10s. per cent. Scoured wool is worth £100 a ton. I pay a general insurance from the sheep's back to London, but if I use the steamers between Brewarrina and Bourke I have to pay an additional special insurance, which I think would be about 2s. 6d. a ton.
2082. According to your statement it would not be 5s. per ton, but 5s. per cent.? I am informed that this year the charge was 10s. per cent. I am merely putting it at 5s. per ton to be within the limit of safety. Referring to the recommendation of the Sectional Committee that the Crown lessees of 4,500,000 acres should agree to contribute up to another $\frac{1}{4}$ d. an acre for their land in order to cover any possible loss in the working of the railway, I desire to say that such a recommendation could not be carried into effect. Many would be agreeable to pay this extra amount, but unanimity among the lessees would be impossible. A few of the Crown lessees are hostile to railway extension. In some instances they dread the coming of the railway, because it will mean more stock traffic through their country; while in other instances the lessees are afraid that the railway will mean closer settlement and land resumption. Should the Committee have doubts as to the paying capability of the proposed line, I would respectfully suggest that some other plan than the impossible one proposed should be put into effect. My previous estimate was based on a rate of 10s. per ton, but if a rate of 15s. per ton were required to make the line a paying one we should be glad to pay it. I believe that many of the wool-growers and many of the chief business people of the district are prepared to pay 15s. a ton, and to guarantee to use the railway exclusively. In reply to Question 2011, Mr. Harper says that he considers an estimate of the fat stock at 2,000 trucks an exaggerated estimate. I should like to know what he thinks of my estimate of 3,000 trucks. The opinion of myself and others, all experienced men, who know the capabilities of the district, should surely be of more weight than that of a railway official. The question is not what the district has done, but what it would do if it had railway facilities. I adhere generally to my previous evidence. If the volume of traffic appears to the Committee likely to be too small, that difficulty can easily be met by increasing the local rates. I stated last October that the bogey of river competition would doubtless be raised during this inquiry, and in that expectation I have not been disappointed.
2083. *Chairman.*] You estimate that 18,000 bales would be sent by railway from Brewarrina to Byrock? I claim more than that. I claim that about 1,300 tons of wool would come to the railway from the Culgoa. Mr. Harper gives Bourke credit for that traffic, but we claim that Brewarrina is nearer, and that it would go to Brewarrina instead of to Bourke. If you refer to page 32 you will find that I claim 18,000 bales of wool from the existing river traffic, or 3,450 tons. I take the goods river traffic at 2,450 tons. The quantity of wool now drawn by road to Bourke is 7,000 bales, or 1,300 tons. Then I take the goods and wool traffic, of which Byrock is the depôt, at 2,600 tons, making a total of 10,000 a tons.
2084. You say that a large part of this traffic, if it were carried for 15s. a ton, would save you 15s. a ton? I think that a railway would save the people in the district from 10s. to £1 a ton.
2085. Let us say 10s. per ton? It would be more than that. Most of the large stations lie back from the river. The wool is carted to Brewarrina as the depôt. It is dumped down there higgledy-piggledy, and is taken away by the steamer irregularly, so that when it reaches the sale-rooms it is all mixed up. If it were sent direct from Brewarrina it would be kept together, and the clip would go down in order. At the present time the steamer takes away a few bales of this sort and a few bales of that. This tends to diminish the value of the clips.

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2086. We will take it for granted that the railway will be worth about £6,000 a year to the wool-growers, putting the traffic down as 10,000 tons, and the saving at 15s. a ton;—for what acreage would the holders participate in that benefit? Of course, some people would derive twice as much advantage from the construction of the line as other people would get. Personally, I would sooner pay more for my land than I pay now, if the railway were constructed; but we know as an absolute fact that unanimity on the question cannot be obtained, because certain lessees are actively hostile to railway extension. Even under the present Act land can be resumed, and they are in a funk lest some change in the land laws may be made, and the land resumed more easily.

2087. *Mr. Fegan.*] What are your main objections to the Sectional Committee's report? I have only had an opportunity of glancing at it, but I saw what was printed in the *Herald*. I object to the recommendation of the Committee. With all respect to the Committee, I say that it imposes an impossible condition. If the Crown were to put an extra $\frac{1}{4}$ d. an acre on our land by Act of Parliament, without asking our consent, that would be a different matter.

2088. You would be entirely in favour of the proposal of the Committee if you thought that that proposal could be enforced? I say that, personally, I should be glad to pay the extra amount, but I know that it is absolutely impossible to get all the lessees to agree to that.

2089. Will you tell us how the discrepancy between your estimate of traffic and those of the railway officials, and of the agent for Messrs. Rich & Co., comes about? I am only responsible for my own evidence.

2090. Would you not think that the railway officials, whose duty it is to report on the proposals put before the Committee, and who have the right to enter into any railway station office and obtain the traffic statistics compiled there, would be in a better position than you to give us information? I had command of the same information as they had. You will find it tabulated in the yearly reports of the Commissioners.

2091. Then, how is it that your estimates differ so much? Because Mr. Harper does not give us credit for an amount of traffic which we claim must come to the railway at Brewarrina. He gives credit to Bourke for all the West Cullgoe country.

2092. How many bales of wool do you allow to the ton? Five and a quarter bales of greasy wool. Mr. Harper averages the greasy wool and the scoured wool.

2093. Yes, at six and two-thirds bales to the ton? Washed wool always pays a higher rate than greasy wool.

2094. The additional rate for scoured wool is £1 per ton? Yes; from Bourke. I gave the figures for greasy wool for the sake of convenience. Scoured wool will soon be a thing of the past. If I were dividing the wool into scoured and greasy, I should put down 12s. for scoured wool, and 10s. for greasy wool.

2095. If you allow six bales to the ton, that is a little over 4,500 tons? We can produce 4,500 tons of wool from the area of land shown on my map, allowing a sheep to 3 acres, and 7 lb. of wool to the sheep.

2096. Your suggestion is to increase the local rates rather than to add a farthing an acre to the rent of the land? Yes.

2097. You would not suggest that the line should be run at a loss of £4,000 a year? No.

2098. You suggest that the local rates should be increased? Yes; if there were likely to be a loss.

2099. The higher you raise the railway rates, the greater the opportunity you give to the river competition? I have proved that the possibility of river competition is a myth, which is maintained by the self-interest of the owners of the steamers. Mr. Shainwald in his last evidence seems to have abandoned the contention that the steamers would compete for the wool between Brewarrina and Bourke, and he raised the boggy that the steamers would take the wool to South Australia. It must be evident that no wool-grower, short of an idiot, would send his wool round that way. It is simply nonsense to suggest it.

2100. *Mr. Humphery.*] Would it be possible to obtain unanimity with regard to the increase of rates, and to get an undertaking from the people of the district that all station produce would be sent away by railway, and all goods brought up by railway? I do not think you will get unanimity in these matters; but we have the sworn statements of leading storekeepers and pastoralists that they would send by the railway, if the local rate of 15s. a ton were charged. There are three of us present now who would never dream of using the river if we could get our wool carried to Byrock by railway for 15s. a ton. If it would suit us to use the railway, it would suit others.

2101. I think you said that no one but an idiot would take into consideration the possibility of the steamers successfully competing with the railway? No; I said that no pastoralist who was not an idiot would ever think of sending his wool round by way of South Australia. If he did, he would lose two months before he could get any money back.

2102. What would be the position of the pastoralists, supposing the wool could be sent to Adelaide for £3 10s. a ton? It could not be sent for that price, if insurance charges were added.

2103. What would the insurance charges be? Thirty shillings per cent. That would be 30s. a ton on washed wool, and £1 a ton on greasy wool.

2104. I suppose the wool is worth in round figures £10 a bale? Fully that.

2105. That would be 15s. a ton for insurance? Well, as wool is generally insured at its full value, and as scoured wool is worth £100 a ton, I reckoned it at about 20s. to 23s. as an average.

2106. From £3 18s. to £4 would cover all the charges of sending wool to Adelaide by river? £4 a ton might.

2107. Then the contention is that the freight to London is higher from Adelaide than from Sydney or Melbourne? Yes.

2108. Inasmuch as the cost of sending greasy wool from Bourke or from Byrock to Sydney is £4 a ton, and for sending scoured wool £5 a ton, would not this difference tell in favour of the river;—it must also be remembered that the river steamers might see fit to reduce their present rates? If the practice were to send wool to England there might be something in the arguments; but none of the small settlers and very few of the big settlers in the Brewarrina district do anything else than sell their wool in Sydney.

2109. What is the freight from Adelaide to Sydney? From 5s. to 7s. a ton. With insurance added it would be at least 10s. a ton.

2110. You have to add to the present railway rates 15s. a ton, which would be the local rate from Brewarrina to Byrock.

2111. That would make the railway rate to Sydney from Brewarrina £4 15s. a ton for greasy wool, and £5 15s. a ton for scoured wool? Putting it at £4 a ton to Adelaide from Brewarrina, and 10s. a ton from

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- from Adelaide to Sydney, the cost of sending to Sydney, *via* Adelaide, would be £4 10s. a ton, so that the difference would be in favour of the Adelaide route.
2112. With competition, would not the steamer rates be lowered? I do not think the steamers would take the wool for less than £3 a ton.
2113. We have been told the contrary? The Railway Commissioners could also afford to lower their rates. They are taking wool now from a point 80 miles below Bourke. My great contention is that the loss of time occasioned in shipping wool to Sydney, *via* Adelaide, would prevent the steamers from competing successfully with the railway.
2114. Would not the saving of 15s. to £1 a ton be of great importance to the wool-growers? Certainly.
2115. The whole question is whether the earnings of the railway would cover the interest and working expenses;—the evidence as to the probable earnings of the line is conflicting? The only evidence of any weight against us is Mr. Harper's.
2116. That is very important evidence? Mr. Shainwald's evidence is interested. All I can say is that we are reliable witnesses, and that our knowledge of the district is superior to that of any railway official.
2117. Do you think it would be impossible to obtain the consent of a considerable majority of the Crown lessees in the district to an increase of rent? You might get a majority of them to consent to an increase of rent, but a large part of the district is controlled by mortgage companies, who are notoriously adverse to railway extension. They would sooner see the railway 100 miles further away from Brewarrina, because they are afraid of closer settlement. I daresay we could get a majority to consent to an increase of rent, but these companies control so much wool that it would be hard for us to do more than that.
2118. Do you not think that argument inconsistent with what you said about the direct pecuniary advantages to be derived from railway extension;—I suppose the mortgagees would be beneficially affected by the construction of the line? My experience is that there are pastoralists in this country who are very sorry that the railway ever went past Dubbo. They are afraid of small settlement.
2119. *Mr. Hoskins.*] Suppose the Darling were improved between Brewarrina and Wentworth, so as to make it navigable for nine months in the year, do you not think that the steamers would successfully compete with the railway, and take wool, if not to Adelaide, to Echuca? My answer to that question is that if the Government were willing to do the work without charge the steamers could compete; but that if they tried to get interest on their expenditure the steamers could not compete.
2120. This Committee has been charged with the work of considering a proposal for the locking of the Darling from Bourke to Wilcannia? I carefully investigated the evidence given before the Committee in regard to the proposal to lock the river between Brewarrina and Bourke at a cost of £120,000. I said in my evidence-in-chief that if the Government were to charge tonnage dues to get back the interest upon that expenditure the steamer charges would be higher than the railway charges.
2121. Do you know that the people of Hay asked Parliament to construct a railway to Hay, and at the time expressed the same opinions as the people of Brewarrina are now expressing, but that after the line was constructed they took advantage of the lower steamer rates to send their wool away by river? I do not doubt it; but Hay is in a very different geographical position from Brewarrina. It must have been patent all along that the Hay railway could not compete with the river. In our case, however, self interest would prevent us from using the river.
2122. You said that the Adelaide wool market was of little consequence;—do you know that all the principal wool-buyers go to Adelaide, and that they have regular markets there? I do not know that all the principal buyers go there. Some years ago they made an attempt to establish a market there.
2123. Elder, Smith, & Co. do a large business there? It has pretty well collapsed now, I think.
2124. You said that the Brewarrina people would have to continue to send to Sydney, because of their connection with Sydney houses; but do you know that one of the largest wool-producers on the Lachlan has recently been sending his wool to Sydney instead of to Melbourne, where he formerly sent it? He is nearer to Sydney than to Melbourne, and he finds it more advantageous to send to Sydney.
2125. Mr. Shainwald, the manager of the largest forwarding firm in the western district, said that he felt confident that, if the railway were made, they could reduce the river rates so as to compete against it? That was an utterly ridiculous statement. The steamer company has not declared a dividend for years.
2126. Mr. Shainwald said that they had declared a dividend? There are three or four squatters in the room now, and I dare say they would all be willing to declare upon oath that upon no consideration would they send their wool by river if they could send it by railway.
2127. You admit that wool is now sent by river from Bourke to Echuca? Not from Bourke, I think; but from one or two stations further down the river. The Dunlop and the Tooralic wool come to Bourke, although those stations are 80 miles further down the river.
2128. You feel confident that if the proposed railway be made, we need not fear the river competition? Emphatically that is my opinion.
2129. *Mr. Hassall.*] Is it not a fact that Messrs. Rich & Co. now control the river traffic? They control it by our grace. They take our wool, because we give it to them.
2130. There is no other firm to compete with them? They practically control the traffic.
2131. If you were a member of a firm, you would like the Government to spend £120,000 in locking the river between Bourke and Brewarrina? I cannot think that the Government would enter upon that expenditure simply to benefit Messrs. Rich & Co.
2132. You are practically dependent upon this firm for the conveyance of your wool from Brewarrina? Yes; unless we employ teamsters.
2133. You contend that if the river were locked the tonnage dues would make the rate so heavy as to prevent the river from competing with the railway? Yes; unless the Government made a present of the expenditure to the steamship companies.
2134. You also say that the wool growers in the Brewarrina district would willingly pay 10s. and 15s. a ton to have their wool carried by rail from Brewarrina to Byrock? The great majority have expressed their willingness to do so.
2135. During the last three years the principal sales of wool have been held in Melbourne and in Sydney? Yes; and especially in Sydney.
2136. Sydney is now looked upon as the leading wool market in the Australian Colonies? Yes.
2137. The smaller growers naturally desire to send their wool to the nearest and best market, and under any circumstances they would make use of the railway if it were constructed? They must do so. The importance

importance of the live-stock traffic seems to have been rather ignored. We look upon it as likely to be a great factor in the railway returns. It is monstrous to offer a pastoral community an improved steamer traffic, because we cannot send fat stock by steamer. W. Sawers.
15 April, 1898.

2138. The steamers are of use only for the conveyance of goods and wool? Yes.

2139. *Mr. O'Connor.*] When you are most anxious to get stock away the river is dry? Yes; not navigable.

2140. *Mr. Hassall.*] The country behind Brewarrina is well grassed and watered? There is no finer fattening country in New South Wales than that between the Culgoa and the Narran, and up towards the Queensland border. Mr. Harper says that he has examined the railway books, and that his sources of information enable him to know exactly the number of fat stock coming from the Brewarrina district. I have pointed out before, however, that owing to the want of a railway, and the bad character of the stock routes, most of the squatters have ceased to fatten stock for market, and sell their sheep as stores. Years ago I averaged 10,000 fat sheep a year; but for a long while past I have not sold fat sheep. If we had a railway the district would be in a position to supply Sydney with fat stock. It is not what we are doing, but what we could do that should be considered.

2141. The fattening of stock for market in your district has practically been neglected of late years, because of the difficulty of getting stock away? Yes.

2142. If facilities were afforded you would be able to send fat stock away in large numbers at almost any time? Yes.

2143. The railway would obtain a very large revenue from this traffic? I am confident that my estimate would be realised, and I am in a better position to form an opinion than is any railway expert. I think that it is ridiculous for Mr. Harper's opinion to be offered against that of reliable witnesses upon a question of this kind.

2144. You have asked for the reopening of this inquiry in order that the residents of the district may state emphatically their willingness to pay local rates for the conveyance of produce and stock upon the proposed line to minimise any loss which may occur through the smallness of the traffic? Yes.

2145. You have no fear of the river competing with the railway? None whatever. In my opinion it is absolutely impossible that the river should compete with the railway.

2146. Do you think that the probable loss upon the railway has been very much exaggerated? In my opinion the railway will pay from the jump—that is to say, from within twelve months of its being made. If a railway is not extended to Walgett, when the river is navigable we shall get the whole of the wool from as far as Walgett.

2147. How would a line running between Collarendabri and Walgett, in the direction of Goodooga, affect the Brewarrina trade? If the railway were extended from Narrabri to Walgett, and went to the river, the wool from the sheds on the river would go to Walgett; but if the railway were not taken to the river that wool would probably come to Brewarrina.

2148. Does it not follow that the wool on the banks of the river between Brewarrina and Bourke would be taken to Bourke instead of to Brewarrina? Yes. However, I have not included the Walgett wool in my return.

2149. *Mr. Lee.*] The working expenses and interest charges of the proposed railway are estimated at £9,140 a year, and the earnings at £4,841 a year, showing a loss of £4,299 a year. You estimate the traffic as worth £10,068 a year. While you say that Mr. Harper's estimate of traffic is too low, it may happen that your estimate is too high. If we split the difference between the two estimates that will make the total earnings £7,261, which will make the loss per annum £1,879? On what rate basis.

2150. Adopting your own rates? Well, the loss could be made up by increasing the rates.

2151. Would we be getting close to the actual traffic if we took the mean between your estimate and that of Mr. Harper? You would stand on absolutely safe ground if you did that.

2152. Can you assure the Committee that there is a future for this district which in the course of a few years will enable you to wipe off any loss with which the railway may start? To me that is beyond doubt. The district even from a pastoral point of view will greatly improve in a few years.

2153. But the river competition will be much stronger than it is now, so that it is probable that the river will be improved? All I say is that the district must develop as the years go by.

2154. You are satisfied that increased production will mean increased traffic? Yes.

2155. *Mr. Fegan.*] If it were possible to put into force the recommendation of the Sectional Committee, would you be satisfied with it? Personally I should be satisfied.

2156. You are only speaking for yourself? I cannot speak for the whole district.

2157. *Mr. Lee.*] You express your confidence in the future prosperity of the district;—will you show us how this prosperity is to come about? From increased production. The district could carry more stock than it carries at the present time, if more water were made. It is magnificent country, but a great part of it is very dry, because there are not many natural water-courses. The trouble has been solved in some measure by putting down bores; but bores are too expensive for the ordinary settler. In the old days, tank excavation used to cost 1s. 6d. per yard. The price was then reduced to 1s. 1d. a yard. I have spent at least £10,000 in putting down tanks at 1s. a yard; but now I can get the work done for as little as 5d. and 5½d a yard. At this price the water difficulty is solved, and the settlers can afford to make the district as well watered as it is possible to conceive. When this is done the production of the district in wool alone will be increased by 20 or 25 per cent.

2158. Then in your opinion the grazing interest has not yet been thoroughly developed? Certainly not.

William Dickson, grazier, Yarrawin, sworn, and examined:—

2159. *Mr. Humphery.*] You are a pastoralist, and you have a holding near Brewarrina? Yes, at Yarrawin. W. Dickson.
15 April, 1898.

2160. You desire to add to the evidence which you gave before the Sectional Committee at Brewarrina? I simply wish to give emphasis to the statement of Mr. Sawers, especially with regard to the river traffic. As a wool-grower, I wish to say that the pastoralists of the district would rather send their wool by railway than by river, under almost any conditions. We would never attempt to send our wool to Adelaide.

2161. *Mr. Hoskins.*] Why would you not send by river if you could get your wool taken by the steamers at a much lower rate than by the railway? To send by river means extra handling and loss of time, and time is valuable to us.

- W. Dickson. 2162. Do you sell your wool within the Colony? No; we ship the bulk of it.
 15 April, 1898. 2163. Then time is of little consequence to you? The facilities for sending wool from Sydney are greater than the facilities for sending it from Adelaide. Some years ago we sent wool to Adelaide, but the arrangement was most unsatisfactory to us. It took something like two months for the wool to reach Adelaide, and then we had to pay a higher freight from Adelaide than we should have had to pay from Sydney.
2164. But the traffic to Adelaide has been expedited during the last two years by the improvement of the river? Not to any great extent. The river has been snagged in some places.
2165. Wool is sent now from the Upper Darling to Echuca and Morgan? Not from the Bourke district. Wool may be sent from places lower down than that.
2166. The Committee have been informed by the Manager of Messrs. Rich & Co. that, if the railway were constructed to Brewarrina, the steamboat proprietors could make better arrangements for the conveyance of wool by river, and that they would cut down the rates as low as possible. They could minimise the handling by using derricks as they do at Hay? Hay is much closer to Melbourne than either Bourke or Brewarrina. If wool were put on to a steamer at Brewarrina, that steamer might not have a full load, and she would take on more wool lower down, which would necessitate the shifting of some of the wool already on board. Every handling injures wool.
2167. The experience of the Railway Commissioners is that the producers of low-class greasy wool do not care what means of transit are used, as long as it is cheap? That is not the feeling in the Brewarrina district; the people there would prefer to send away their wool by rail.
2168. They said the same thing at Hay before the Hay railway was constructed, but afterwards they took advantage of the low steamer rates? It is only a short distance from Hay down the Murrumbidgee to the Murray, and the navigation of the Murray is comparatively safe. Besides, the distance is much less than the distance from Bourke.
2169. You believe that if the proposed railway were constructed wool would be sent by it from Brewarrina direct to Sydney? Yes, nearly the whole of it. Our clip and the clips from two adjoining stations have not been included in Mr. Harper's estimate, so far as I know. That wool now goes to Girilambone or Nevertire.
2170. The large financial institutions whose headquarters are in Melbourne control the movements in the wool, and force people to send it where they think proper? To some extent they may do so; but I think that every year the producers are getting more independent.
2171. *Mr. Fegan.*] If the recommendation of the Sectional Committee could be carried into effect would it satisfy your people? I should be satisfied with it, and so would a great many others; but it would be difficult to carry it into effect.
2172. If it were passed into law it could be carried into effect? Then it would be satisfactory.
2173. The condition would then be acceptable to the people up there? Yes; so far as I know.
2174. There is a great difference between your estimate of traffic and that of the Railway Department;—if your figures are correct there is no necessity for making an extra charge upon the land;—you would not advocate a railway which would not pay? We do not wish to advocate the construction of a railway which would be drag upon the resources of the country.
2175. The recommendation of the Sectional Committee, if carried into effect, would get rid of any loss? I should be willing to accept that recommendation.
2176. It would get over the difficulty? Yes; or you could get over the difficulty by charging higher rates. If there were a railway to Brewarrina we should send our wool to Brewarrina. I should also like to state that when we send wool from Brewarrina to Bourke we never pay less than 25s. a ton, without insurance. As a rule, we have paid 28s. 6d. a ton.
2177. You do not send any wool to Bourke? Not during the last three years, except small quantities. Last year we sent about 50 tons to Bourke.
2178. What did you pay then? From Brewarrina we paid about 25s. a ton. The bulk of our clip we shipped there.
2179. The rate from places further up the river was higher? Yes.
2180. In the first place, there is 10s. for the transhipment at Brewarrina? We generally sent our wool away at times when the steamers could cross the Brewarrina rocks.
2181. What services were performed for the 28s. 6d. you paid? Our wool was taken from the river bank at Brewarrina, put upon the river steamers, carried to Bourke, and placed upon the railway trucks at Bourke. We were supposed to pay 25s. a ton for the steamer carriage, and 3s. 6d. for the handling of the wool at Bourke. The wool landed on the trucks at Bourke was in the same position as wool that is landed on the trucks at Girilambone.
2182. The evidence of Mr. Shainwald is to the effect that these rates include carting and the storing of the wool in Sydney? That is absolutely wrong.
2183. This is Mr. Shainwald's evidence:—
1845. With regard to the river freights the evidence has been somewhat conflicting;—what are the prevailing rates at the present time? From 20s. to 25s. I might possibly remove a source of conflict in the minds both of the Committee and of other witnesses who have given evidence locally, if I pointed out that the rates of 20s. and 25s. a ton from Bourke include all charges plus the commission charges and delivery to the ship's side or warehouse. When I say that the rate is 20s. or 25s., I mean that the whole charge of handling the produce from the time it leaves the growers until it reaches the agent in Sydney.
1846. Does it include insurance? No. For example, we say to the growers, "The rate from Brewarrina is 20s. a ton, including all charges excepting insurance and trainage. The 20s. covers the actual rates paid by steamer, it covers the haulage charges at Bourke, the cartage from the river bank to the railway at Bourke, our commission charges in Bourke and Sydney, and cartage from Darling Harbour into the store at Sydney."
- ? I maintain that there are no charges for commission and for cartage in Sydney. The Railway Commissioners convey the wool to the stores without charge. That evidence conveys the idea that something is paid for cartage and commission in Sydney.
2184. Mr. Shainwald goes on to say:—
- We calculate that our commission on all these charges, and delivery into the store at Sydney is 2s. 6d. a ton. We calculate the haulage at Bourke at 9d. a ton; the cartage from the river-bank to the railway at Bourke, 2s. 6d. a ton. These three charges comes to 5s. 3d. If you deduct them from the 20s. which we charge all through, it leaves the actual river freight at 14s. 9d. on ordinary occasions. I am speaking of Brewarrina, below the Fisheries, as the shipping point.
- ? That is, reckoning the steamer freight at 20s. a ton. 2185.

2185. Are those charges the usual charges? I cannot quite understand them in that form. I maintain that the lowest rate we ever paid from Brewarrina to Bourke was 25s. a ton. That included all charges. W. Dickson.
15 April, 1898.
2186. And you have paid as high as 28s. 6d. a ton? Yes.
2187. When you send your wool away by rail what service do you get from the Railway Commissioners? We pay £4 a ton for greasy wool and £5 a ton for scoured wool from Girilambone. We deliver the wool into trucks there, and it is sent to the stores in Sydney without further charge.
2188. Then the figures we have here are misleading? Yes. It has been said that the river may in course of time be locked, and that then the steamers will be able to reduce their rates. It will, however, be many years before the locking of the river can be carried out, and in the meantime the development of the district will be such that the railway authorities may be able to see their way to a reduction of railway freights, which would meet any lowering of steamer rates. It would take probably ten years to lock the river.

William Nicholas Willis, Esq., M.P., sworn, and examined:—

2189. *Mr. Lee.*] You represent the Electorate of The Barwon in the Legislative Assembly? Yes. W. N. Willis,
Esq., M.P.
15 April, 1898.
2190. I understand that you desire to supplement the evidence which you gave before the Sectional Committee at Brewarrina? I desire to supplement the statement I made before the Sectional Committee in regard to the increased rentals that might be obtained from the pastoral and homestead lessees if this railway were constructed, provided a loss accrued from its construction. What I wished to convey to the Sectional Committee was that the land through which the railway will pass belongs to the State, and is subject to reappraisal at intervals of seven years. I think the last reappraisal took place two years ago, so that these lands will be reappraised in five years' time. When the reappraisal is taking place the fact of the construction of the railway will be taken into consideration by the chairman and the members of the Land Board in fixing the new rentals, and no doubt the rentals will be increased because of the advantages given by the railway. If the railway did not pay—though I think it will—the homestead lessees and other Crown lessees would not growl if they were charged a farthing an acre more for their land. In Queensland the Government wanted to make a railway from Charleville to Cunnamulla. I pointed out to the Premier there that a railway should be made to open up that country. Of course, the usual objections were made, especially on the part of the Railway Commissioners. Sir Hugh Nelson called for a report showing how many acres of land would be thrown open for homestead lease, and when he received that report he said, "The best thing we can do if the line does not pay is to charge 1d. for the land, instead of $\frac{3}{4}$ d. an acre." All the land that has been thrown open along that line has been greedily taken up, and people are now waiting to take up any land which may be thrown open at the increased rate. In the Brewarrina district the land is already in the hands of leaseholders, but it will ultimately revert to the Crown. The Government can increase the rent charged for this land apart from the railway. Down about Nyngan, land which, before the railway was made, was leased for $\frac{1}{2}$ d. an acre, is now leased for 2d. and 2 $\frac{1}{2}$ d. an acre.
2191. So that the State is benefited indirectly, if not directly, by the construction of a railway? Exactly. That is what I wanted to convey to the Sectional Committee. I also want to take objection to the proposal to get an undertaking from the Crown tenants to pay $\frac{1}{4}$ d. an acre more for their land before the railway is constructed. Some of the Crown tenants do not want a railway, and would be glad if a railway never came into the district. It is not that they would not be benefited by the construction of the line, but they fear settlement. Under our Land Act, the Government can take away certain areas from the big pastoral holdings, and throw them open for small settlement. I have tried to get land thrown open, but I have always been met with the objection that the settlement would not warrant its resumption. If the railway were made that excuse would be valueless. If, however, the construction of the line depends upon the signing of a guarantee, such as I speak of, we shall never get a railway. While I believe that 75 per cent. of the people of the district would agree to give a guarantee, the other 25 per cent. would not. Personally, I should be only too glad to pay a higher rental.
2192. Would it not follow, as a matter of course, if the railway were made, that the rents would be raised at the next appraisement? Yes. The railway could not be constructed, even if it were sanctioned by the next Parliament, in much less than five years, and the land will then be open for reappraisal. My opinion is that the rents will then be increased, not by $\frac{1}{4}$ d. an acre, but by perhaps as much as 1d. an acre.
2193. Are you of opinion that in the event of the construction of the railway the natural traffic of the district will be sufficient to cover the working expenses and interest? I am clearly of that opinion. The geographical situation of Brewarrina proclaims it to be the natural depot for Queensland sheep and cattle; and meat-preserving works, boiling-down works, and wool-washing establishments would start there if a railway were made. Then, too, a great deal of the land between Byrock and the Bogan, and between the Bogan and the Tarrion will be cultivated. I am prepared myself to clear from 500 to 1,000 acres of land, and to put it under wheat. I would guarantee to do that. According to the reports of the Government Astronomer, the rainfall of Narromine, Byrock, Nyngan, and Gongolgon is about the same. They are growing wheat in the most luxurious fashion in and about Narromine. Some years ago I attended a meeting at Dubbo to protest against the Government raising the rents there above $\frac{1}{2}$ d. an acre. Now all that land is under wheat, and is worth £2, £3, £4, and £5 an acre. I am sending 100 bushels of wheat up now to plant. The rich chocolate flats on the Tarrion would all be cultivated if the railway were made, and that would increase the traffic. There would also be a lot of extra traffic of which no account has been taken.
2194. What has been your experience of the effect of railway extension? A few years ago I had a store at Nyngan, but I did not, in my wildest dreams, imagine that they would ever grow crops there, and I left the place. Twenty years ago, when I first went to Dubbo, if a man spoke about growing crops there, he would be considered a raving lunatic. Now they are growing crops from Dubbo to beyond Nyngan.
2195. Will the effect of the construction of this line be to open up more cultivation? The land will be put to its proper use. People will cultivate it as well as run sheep. Some sort of railway communication must be given to all this country in the interior. That is the only way in which you can get millions of acres of land to be taken up and properly used.
2196. You do not know how the land about Hay compares with the country between Byrock and Brewarrina? No; I have never been there. At Lachlan Downs, which is between Nymagee and Cobar, we grow

W. N. Willis, Esq., M.P. grow crops very well, but we can only grow enough for our own use, because it does not pay to send anything away. I made the proposition to the Government that if they would put the carriage of wheat from Cobar upon the same footing as the carriage of wheat from Wellington, I would guarantee to put 1,000 acres of pine scrub land under crop; but they would not consent to that.

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2197. Do you think that there is a reasonable prospect of this line paying within a few years? Yes; I think that more light lines should be made in this country. I should like to see the Committee put its foot down upon the heavy and expensive style of construction. What does it matter if the trains only run 12 or 15 miles an hour. That is quicker than a bullock-dray can travel. In Queensland they make 4 or 5 miles of railway for what it costs us to make 1 mile, and they get a return from the land, if not from the railway.

2198. Is there any other point you would like to refer to? Only this: that I would suggest that if there should be any loss upon the line the rates should be increased. I paid 25s. last year to send my wool from the Tarrion to Bourke, and I should be glad, if the railway were not paying, to pay 15s. or 17s. 6d. instead of 10s. as a local rate. Three trains a week would be quite enough for the present requirements of the district. I would beg the Committee to remember that the land in this district belongs to the people. Very little of it has been alienated—I suppose not 1 per cent. In making the railway we are improving the estate of the people; and the more you improve this estate the more you get in rent. It is like putting an extra front into a shop, and charging so much more rent for it.

TUESDAY, 19 APRIL, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Byrock to Brewarrina.

Francis William Bacon, grazier, sworn, and further examined:—

F. W. Bacon. 2199. *Mr. Humphery.*] The Committee understand that you desire to supplement your evidence? Yes. Before being examined again, I should like to briefly state the reasons why I and some of my brother graziers have come here again to-day. We saw in the newspaper a *précis* of the report of the Sectional Committee containing the recommendation that the various lessees should agree to pay a farthing an acre additional rent to make up any loss that might occur in connection with the proposed railway. While personally, I should be in favour of making up the loss in that way, I know that it would be impossible to get the lessees to agree unanimously, or with anything approaching unanimity, to such a proposal. They do not desire better means of communication than now exist. Some are actively hostile to railway construction. Many of the large stations in the district are controlled by financial companies, having the expenditure of English capital, and, so long as the properties give a fair return, they do not wish to see the *status quo* altered. As was pointed out by Mr. Sawers last Friday, they do not wish the railway to come any closer to their property than it is at present, because they fear further settlement. In about five years from now, all the properties in this district will be re-appraised, and I should like to point out to the Committee that the last Land Act specially recommends the Chairman and Members of the Land Boards in fixing rentals to take into account the cost of carriage. We therefore know for an absolute certainty that if the proposed railway is made our rents will be increased, and this increase of rental will, of course, be an indirect return to the State from the construction of the line. Another reason why we have come here is because of the evidence tendered by Mr. Shainwald. Early in the inquiry it was stated that the rate of carriage by steamer from Brewarrina to Bourke was as low as 12s. 6d. a ton. Mr. Shainwald, in his supplementary evidence, stated that the rate was £1 a ton, and he went into a number of calculations to show how that rate was made up. I can only regard his evidence as an intentional effort to mislead the Committee. The rate of carriage by river from Brewarrina to Bourke has always been 25s. a ton; leaving out of consideration forwarding charges at Bourke. Mr. Shainwald put down 9d. a ton for haulage, and 2s. 6d. a ton for cartage, but there are not two such separate charges. The wool is taken from the Bourke wharf to the railway station, and a charge is made for cartage; but there is no distinct charge for haulage. This year I paid 25s. a ton to have wool taken from Brewarrina to the Bourke railway station. The insurance, which was extra, came to 3s. 8d. a ton, reckoning 5½ bales of greasy wool to the ton.

2200. So that, with insurance, you paid 28s. 8d. a ton? Yes; in addition to that I had to pay the usual forwarding charge of 2s. 6d. a ton to Messrs. Wright, Heaton, & Co. We are all very indignant about Mr. Shainwald's evidence. He further stated that his firm made a charge for delivering the wool from the Sydney railway station to the stores here; but he must know that no charge is ever made, because the Commissioners deliver the wool to the stores free of charge. Neither Messrs. E. Rich & Co., Wright, Heaton, & Co., nor any other firm have anything to do with the delivery in Sydney. They perform no service beyond putting the wool on the train. The total charge for the wool from Brewarrina free on rail at Bourke was £1 11s. 2d. per ton. Only part of my clip went by river then—about 550 bales.

2201. How did you send the balance? By team to Bourke and to Byrock. For the last two or three years I have been able to send more cheaply by team to either Bourke or Byrock than by steamer from Brewarrina.

2202. What did it cost you to put your wool on the train at Bourke, sending it by team? £2 15s. a ton.

2203. What is the usual charge to take it from the station to Brewarrina? From 35s. to £2 a ton. Taking the lower rate—35s.—and adding £1 11s. 2d., the cost of conveyance by steamer from Brewarrina to Bourke, and other charges which I have mentioned, the total charge comes to £3 6s. 2d., as against £2 15s.

2204.

2204. That naturally suggests the inquiry why you did not send all your wool direct to the railway by team? The shed was blocked up with wool, and we thought it better to pay the extra money in order that the carriers might have a shorter distance to go, and be able to get back more quickly. In some instances they did not consult me about the matter at all, and, yielding to the solicitations of Messrs. E. Rich & Co., they put the wool on the steamer at Brewarrina without my permission. I had arranged with these men verbally that if the wool were shipped they were to pay river insurance; but they were not charged for it, so that I had a further loss to bear.

2205. Have you reason to believe that 25s. a ton was the usual rate for river carriage from Brewarrina to Bourke during the season which is just over? Yes.

2206. You did not hear of any wool being carried for less than that? I did not hear of any wool being carried for less than that. Since 1889 there has been an exceptionally good river. I have lived in the district for more than seventeen years, and for the first eight years after I came there it was almost an unheard-of thing for wool to be sent by river from Brewarrina to Bourke, because the river was barely navigable. At one time I lived near Wilcannia, and it then frequently happened that two clips went to Melbourne together, because of the river not running during one season. Mr. Kerrigan stated at Brewarrina—and he is a partner in the steamship company—that the steamers have paid no dividend since 1894. This has been during a period when the river has been good, and the rate 25s. a ton, so that it is unlikely that they will be able to pay dividends if the rate is lowered and less wool is carried by them. If the railway is made to Brewarrina the rates will have to be lower to compete with the railway, and, in any case, some of the wool will be taken by the railway, so that it seems to me that it will be impossible for the steamers to continue. Mr. Kerrigan stated that in one year, whilst he was sole owner of the "Cato," he made a large sum of money by her, and, tempted by that success, he and others bought other steamers and tried to control the whole of the traffic. Mr. Shainwald has stated—a statement which caused us considerable irritation—that Messrs. E. Rich & Co. do not hold shares in this steamer company. Technically he may be right. The firm may not hold shares in the company, but some of the members of the firm are shareholders, and they practically control the traffic and fix the rates. Mr. Shainwald himself stated that Mr. Kerrigan had no right to make certain statements, because he was not in possession of the necessary information, as all the rates were fixed at Bourke. Whether the railway is made or not, none of our wool will go by the river steamers. This year I have been offered a contract at 5s. a ton lower than the steamer rates. Another point is this: It has been suggested that Messrs. E. Rich & Co., if the railway were made, might influence a lot of wool, and cause it to go to Adelaide. I have an intimate knowledge of the accounts of the stations in the district, and I do not think that the company could influence 1,000 bales. They may have made advances upon small clips, but they cannot control any large clips. It may be said that they would reduce the steamer freights in order to compete successfully with the railway. Assuming that we paid a local rate on the railway from Brewarrina to Byrock of 15s. a ton, that would make the charge to Sydney £4 15s. a ton. Now, I have taken the trouble to get a quotation of the cost of conveying wool to Sydney from the district, *via* Adelaide.

2207. Is that the cheapest route? The cost would be about the same, *via* Echuca and Melbourne. The freight from Brewarrina to Morgan is put down at £2 10s. a ton; the insurance at 32s. 6d. per cent.—taking $5\frac{1}{2}$ bales of greasy wool to the ton, at 17s. 7d.; the freight from Morgan to Adelaide, at 16s. 10d.; the outward wharfage at Adelaide, at 2s. 6d.; the freight to Sydney, £1; the wharfage in Sydney, 3s.; cartage in Sydney from the wharf to the store, $5\frac{1}{2}$ bales at 4d. a bale, 1s. 10d. a ton, or a total of £5 11s. 9d. The insurance rates are guaranteed by quotations which I have received within the last few days.

2208. Are you aware that Mr. Shainwald stated that the freight from Adelaide to Sydney at the present time was only 7s. a ton? I think he said that the freight from Sydney to Adelaide was only 7s. a ton. Sydney, as you know, is now the centre of the re-export trade, and they send wire and heavy things back to Adelaide at a very low rate per ton. Of course, the same rates would not apply to wool, which takes up more room, and has to be stowed.

2209. You say that the freight from Adelaide to Sydney is nearly three times as much as the freight from Sydney to Adelaide? Yes; and I have taken the trouble to obtain quotations from shipping people. There is a difference of 16s. 9d. in favour of the direct route by train from Brewarrina to Sydney. For many years Messrs. William McCulloch & Co., of Melbourne, did a large steamer traffic on the Darling; but heavy losses forced them to sell their steamers, and to give up the business. During the last few years there have been several instances in which great loss has been incurred by the sinking of barges through snags. The river route is a difficult one, and the voyage takes from three to six weeks. Wool 60 and 80 miles below Bourke comes up the river to Bourke, and is sent from there direct to Sydney. Wool comes to Bourke from Currinyalpa, Eldorado, Dunlop, Tooralie, and Wittagoona—all stations further down the river. Another advantage in coming to Sydney is that here you get the best market in the colonies. This year the number of bales of wool sold in Melbourne was 197,000, while the number of bales sold in Sydney came to 425,000, or more than twice as many. Owing to the commercial supremacy of Sydney during the last ten years, nearly all the big Melbourne financial houses have established offices here, and they do not direct wool to Melbourne as much as they formerly did. Of course, there are some strange anomalies. Messrs. Goldsbrough, Mort, & Co., have seven or eight accounts with places near Bourke from which in some cases they send the wool to Melbourne. It may be in one case that the station owner is an old Melbourne man, and prefers to sell there. I know of similar anomalies in other districts. I cannot account for them; but they do not affect the result.

2210. *Chairman.*] What is the cost of sending wool from Brewarrina to Melbourne, *via* Echuca? About £5 5s. a ton, I think.

2211. What is the cost of sending to Adelaide by the cheapest route? £4 6s. 11d. I think the strongest argument against the contention that wool would go to Adelaide, if the proposed railway were made, is the fact that it does not go there now, and that it comes to Bourke from stations further down the river. I am sure that the Railway Commissioners are capable of protecting their own interests. They have obtained this trade for Sydney, and they can be trusted to keep it.

2212. *Mr. Humphrey.*] Mr. Shainwald in his evidence explained that, in the event of competition rendering it necessary, he should quote rates from Brewarrina to South Australia, against which the railway could not compete; what is your opinion on the subject? It is absurd to make such a statement. If Mr. Shainwald's Company saw that a profitable business could be done they would take wool to Adelaide now. But I have already shown that the river trading is not profitable.

F. W. Bacon. 2213. Mr. Jamieson, in his statement, said that wool would be sent to Brewarrina for shipment by train from Fernleigh, Coomبرا, Wooleerina, and Bundalear; Mr. Shainwald took exception to that statement, and said that special concessions had to be made to secure that wool at the present time, these concessions being equal to the amount of the Queensland border duty;—do you think that wool would be sent to Brewarrina? I do. Formerly Coomبرا and Wooleerina wool always went to Brewarrina and Bourke. Fernleigh and Bundalear wool went direct to Bourke. The Queensland Government have now taken off the export duty in regard to stations within 40 miles of the border, so I think that this wool will certainly come to Brewarrina.

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2214. Are the stations I have named within 40 miles of the border? Yes, with the exception of Fernleigh. Wooleerina adjoins a property I own—Ballandool. The Queensland Government last year made special offers to these stations. The season then was better in Queensland than in New South Wales, and a number of New South Wales carriers went there to spell their bullocks. It suited them better to take wool over a route on which they could get grass than to bring it into New South Wales.

2215. Where did they take the wool? To Mitchell, a distance of 150 miles. Wooleerina would be within 115 miles of Brewarrina. The people who control these stations live in Sydney, and do business here. There is another point to which I would draw the attention of the Committee. On the basis of one sheep to 3 acres, allowing 7 lb. of wool to a sheep, a rate of $\frac{1}{4}$ d. an acre would mean a charge of 19s. 9d. a ton upon the wool of the district in addition to the local railway rates.

2216. *Mr. Fegan.*] If the local railway rates were 10s. a ton, the carriage of wool would then be equal to 29s. 9d. a ton? Yes. That, of course, would be a very oppressive charge, though, for my own part, I should be glad to pay it, because of the many advantages given by a railway; but I would point out that the storekeepers, publicans, and other people in the towns who get up large quantities of goods by rail would not have to pay anything towards making good any possible loss. A railway enables a pastoralist to save in a good many ways. As I pointed out before, we have now to import a great deal of our labour, and the item of coach fares is a very heavy one in a year. It came to nearly a farthing an acre upon some land which I had, as I proved to the Land Board. We were paying £500 a year for our leaseholds at the time, at 2-7-5d. per acre, and our coach fares came to £50 a year, or one-tenth of our rental. I should explain that these fares were for people employed on two stations which we worked as one; but you can see that this is a considerable item. A tremendous number of men come into the district from Sydney in the shearing season, and many of them use the coaches.

2217. Not as many come up now as formerly;—you have a large number of local labourers? There are fewer now than we used to have. People do not stay in the district now as they did formerly. Only yesterday I sent up a boy, and now I have to send up a married couple to fill the place of a boundary rider who is leaving. The coach fare is £3 or £3 10s. a passenger, and the fares soon mount up. For a number of years I cut twenty bales of wool to the 1,000 sheep, including a large proportion of scoured wool, so that you will see that in averaging the “cut” of the district as 7 lb. to the sheep I am well within the mark. In my opinion the best way of making up any deficiency on the railway would be by the imposition of an extra local rate. I quite recognise that it is almost impossible to properly adjust the conflicting evidence which has been put before you. Mr. Harper claims for Bourke Culgoa wool, which we think would come to Brewarrina. Lately they have made a number of bridges over the creeks in that district, and the wool will come to Brewarrina if a railway is made, because that will be the nearest point. I suppose, too, that he has not included wool within a certain distance of Walgett, which would come down the river.

2218. *Mr. Humphery.*] Do you desire to say anything in regard to the probable live-stock traffic? The evidence taken upon that point has been very full. I have repeatedly sent stock to Dubbo and to Narrabri, because the road from Gongolgon to Bourke was so bad. When, by driving stock 200 miles instead of 140 miles, you can save 6d. or 9d. a head, you drive the longer distance. If, however, there were a railway at Brewarrina I should only have 70 miles to drive, and a good road. I could come down either the Bokhara or the Brie, over first-rate country. A large number of stock go up the Mara Creek, and up the Barwon, of which, perhaps, no account has been taken.

2219. You think that Mr. Harper has not been sufficiently liberal in his estimate of the earnings of the railway? I think not.

2220. Although he has allowed double the average traffic of the past few years? Yes; a great deal of stock goes by of which Mr. Harper can have no knowledge. A railway will create traffic. It would cause people to fatten stock for market which they do not fatten now.

2221. I suppose a large number of stock would be sent away in small lots which cannot be sent away now? Yes; in lots of from 100 to 1,000.

2222. Mr. Harper seemed to be of the opinion that if the local rate were charged on the railway an agitation would be got up against it later on, which the Commissioners could not resist, and that the steamboat proprietors would take a great deal of the wool to Adelaide. He pointed out that the railways had not been able to compete with the river steamers in other places, and he seemed to fear that it would be the same at Brewarrina? The facts are all against him. As I have already shown, wool comes up the river to Bourke.

2223. But do not the stations which send it get large concessions from the Railway Commissioners? I understand that large concessions are given, but similar concessions are given as at Hay. These concessions are given to prevent the trade from going to Victoria.

2224. *Mr. Hoskins.*] Are not concessions given to the Dunlop and Tooralie stations because of the large number of sheep which in drouthy seasons are sent from there into Riverina and brought back again? I have heard it mentioned that the Commissioners give special concessions to Mr. McCaughey, because of the large number of sheep which he sends backwards and forwards. With regard to the Upper Darling traffic, it is to a great extent a local traffic between Bourke and Walgett, and only lasts while there is a good river. The river is very irregular. Sometimes it is navigable for a few weeks, and then the steamer traffic becomes impossible again. You cannot rely upon the river. I do not think the oldest inhabitant ever remembers the river being so good as it has been during the last nine years. The back creeks have been running almost continuously, but when I went up into the district first we had to make dams across them to save water for stock. When we get back to normal years there will be no navigation upon the Darling. I contend that if the steamers cannot carry the wool to Adelaide now, in competition with the railway, they will not be able to do so when the railway is brought to Brewarrina. I would sooner pay 10s. or £1 extra to send my wool to Sydney, because that is the best market for it. Last year, according to the latest official statistics, the shortage of wool in New South Wales alone was

100,000

100,000 bales, but the wool sales of Sydney showed an increase of 40,000 bales over the sales of the previous year. That shows how people take advantage of the Sydney market. We all want money, and we want to realise quickly. If I could save £1 a ton by sending *via* Adelaide I would not send that way, because I might lose more by a fall in the market. I sold my first lot of wool last year on 7th October, and it brought from 8d. to 8½d. a lb. A month later, practically the same wool brought from 7d. to 7½d. There had been a fall in the value of "tops" at Home, and it was reflected out here. I had only 120 bales to offer at the first sales. 500 bales were detained owing to the scarcity of grass; but if I could have got them down earlier I should have obtained a ½d. a lb. more for the wool. My clip came to about 200 tons, scoured and greasy. Sending it by river the wool comes to the stores irregularly, and there might be a delay of three or four months. As it was, it took eight or nine weeks to sell my wool last year.

2225. *Mr. Humphery.*] The same objection would apply to sending wool to Melbourne as applies to sending it to Adelaide? Yes; if I sent my wool to Adelaide I would ship it from there round to Sydney.

2226. Your contention is that the advantages offered by the Sydney wool market and by the quick railway transit more than cover any savings which might be made by sending the wool down the river? Immeasurably more than cover it. At Sydney, in sending to other places, you can take advantage of the lowest freights, and early and late in the season you can get most advantageous freights. I have had freights as low as ¼d. a lb., with a rebate.

2227. *Mr. Hoskins.*] Are you aware that the Railway Department intends to construct a wharf at Bourke, to enable the steamers to discharge directly on to the railway trucks? I am aware of that.

2228. Will not that reduce the river charges? According to Mr. Shainwald it will make a difference of 2s. 6d. a ton.

2229. Have you heard that it is also intended to make a dock at which the steamers can be overhauled and repaired; this will save them a long river journey, and ought also to lessen the cost of transit? I do not think it would make much difference. Were the steamers to carry for little or nothing the bulk of the wool would go by railway, for the reasons I have given.

2230. Some of the witnesses who have preceded you have stated that it would be impossible to increase the rents as recommended by the Sectional Committee; but they think it would be advisable to increase the local railway charges upon the proposed line if necessary? That is exactly my view.

2231. But by increasing the railway charges you give more opportunity for river competition? No; the two points are not the same. A local rate obtains between Forbes and Condobolin at the present time. We ask for this railway with a high local rate as a condition precedent. We are willing to pay a local rate. If the steamers cannot be made to pay when they are charging 25s. a ton, how could they be made to pay at a rate of 15s. a ton, especially if they got only half the trade that they get now.

2232. Do you place reliance upon the statement that the steamers do not pay? That statement has been made by Mr. Kerrigan and by Mr. Shainwald. You could not have better evidence than that.

2233. You appear to have a preference for a railway, but in other parts of the country there are rich people who, to save trouble, send their wool in by teams? Then they are very short-sighted. I do not think there are any such people in the Brewarrina district.

2234. I suppose you know that the Bourke Meat-works have been purchased by the people who control the Deniliquin Meat-works? Yes; Mr. John Cooke is one of the purchasers.

2235. Will not the existence of these works at Bourke tend to draw the stock traffic there instead of to Brewarrina? Certainly not. At the Bourke Meat-works the meat is chilled, and is then sent by rail to Sydney to be frozen hard for export purposes. It is intended, however, to erect an extract plant. The best thing to do with an ordinary sheep or bullock—that is, with an animal which is not prime fat—is to melt him, and make extract out of him.

2236. Sheep in the Brewarrina district that were not first-class would be driven to the Bourke Meat-works, instead of being sent by rail, from Brewarrina? Certainly. I should never send middling sheep to Brewarrina to be trucked to Bourke. I would drive them direct to Bourke. Fat sheep, however, would have to go to Brewarrina. Medium sheep would not stand the expense of train carriage.

2237. *Mr. Wright.*] You do not consider the recommendation of the Sectional Committee a practicable one? No.

2238. Do you think that the majority of the pastoralists in the district would undertake, for a period of three or five years, to send away their produce by train and to get back their stores in the same way, paying 15s. a ton? I feel certain that most of them would.

2239. The Committee would like a guarantee that the local rates will continue in force for some length of time;—do you think that it could be obtained? I do. Some years ago, when the railway was first mooted, several of the graziers about Brewarrina, including Mr. Dickson, who was here the other day, agreed to enter into a bond to make good any loss amongst themselves. The railway would be of great advantage to the storekeepers and others in the district. To show how uncertain the present means of communication are, I would like to inform the Committee that recently I have been cutting bush hay, but some of the knives having been broken, I have been compelled to discontinue the work, because it will take six weeks to send new knives up to the stations. Occasionally we have paid 6d. a lb. per mile to get things taken by coach, so you will see that we work under great disabilities.

2240. *Chairman.*] If Mr. Harper's figures are correct, you would have to pay about £1 on every ton of wool to make up the loss on the railway? Personally, I should be glad to do so; but I feel certain that Mr. Harper has under-estimated the traffic. The truth, no doubt, lies in the mean. Perhaps Mr. Jamieson's evidence was biassed to a certain extent, and I know that he has made one or two blunders. We feel, however, that Mr. Harper is a special pleader against the railway, and we think that he has not given us a fair show.

Richard Randolph Machattie, stock and station agent, Brewarrina, sworn, and examined:—

2241. *Chairman.*] You are a stock and station agent, residing in Brewarrina? Yes.

2242. *Mr. Humphery.*] You have heard what Mr. Bacon has said;—do you support his statements? I do.

2243. Do you desire to add anything to them? Since I had the recommendations of your Sectional Committee wired to me, I have made it my business to move pretty quickly through the district, and I am under the impression that it would be difficult to get anything like a unanimous approval of the proposal

F. W. Bacon.
19 April, 1898.

R. R.
Machattie.
19 April, 1898.

R. R.
Machattie.
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proposal that the graziers there should consent to pay an additional farthing an acre for their land. The small owners would be willing to pay this charge; but it would be difficult to get the whole body of pastoralists to consent to it. There are a number of associations controlling stations there which do not favour railway construction in the district. I would point out, however, that at the last assessment of rents the most material and pertinent questions were asked by the Land Board as to the distances of holdings from the nearest railway station, and the rates of carriage. It is an undoubted fact that the nearer a property is to a railway the higher is the rent charged. If the recommendation of the Sectional Committee were carried out, publicans, storekeepers, and the townspeople generally would not be called upon to bear their share in any possible loss, whereas I think everybody in the district should bear it. These people have expressed their willingness to assist in paying off any deficit which might occur. When the reappraisements are made, if the railway has in the meantime been constructed, our rents will undoubtedly be increased, so that if there is any loss upon the railway there will be a much greater indirect gain. In my opinion the increase of rent will more than double any loss upon the railway.

2244. When will the leases be reappraised? In less than five years' time.

2245. *Mr. Fegan.*] Is it not a fact that the rents in the district have been reduced considerably;—that was the evidence we obtained from the Chairman of the Local Land Board? In the far west the rents have been reduced materially; but in our district the reductions have hardly been perceptible. In some cases there have been increases.

2246. If the recommendation of the Sectional Committee were passed into law, do you think it would give satisfaction to the people of the Brewarrina district? I believe that if the Committee's recommendation could be enforced by Act of Parliament it would give satisfaction.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

SECTIONAL COMMITTEE.

RAILWAY FROM BYROCK TO BREWARRINA.

REPORT.

THE Sectional Committee appointed on the 11th February, 1898, to inspect, take evidence, and report with reference to the proposed Railway from Byrock to Brewarrina, have the honor to report to the Parliamentary Standing Committee on Public Works:—

The Sectional Committee, consisting of the Hon. Frederick Thomas Humphery, M.L.C., Chairman, the Hon. Daniel O'Connor, M.L.C., and John Lionel Fegan, Esq., M.L.A., accompanied by Mr. G. V. Mocatta, Surveyor, of the Railway Construction Branch, left Sydney at 8 p.m. on the 11th March, and arrived at Byrock on the 12th. There not being any evidence forthcoming at Byrock, it having been arranged that all the witnesses should be examined at Brewarrina, the Sectional Committee left for the last-named town next morning, and, travelling *via* Gongolgon, reached Brewarrina in the evening of the same day.

The hearing of evidence was begun on Monday, 14th March, at the School of Arts, Brewarrina, and the examination of the local witnesses concluded at noon on Saturday, 19th March.

In the course of the week the Sectional Committee made an inspection of portions of the surrounding district, driving on one occasion in a northerly direction as far as the Narran Lakes, and on another proceeding nearly 20 miles up the river by steamer.

In the afternoon of the 19th the Sectional Committee commenced their return journey to Byrock, travelling along the approved route of the proposed railway. Byrock was reached on the evening of the 20th, and, after examining a Departmental witness there the following morning, the Sectional Committee left for Sydney, where they arrived on Tuesday 22nd March.

The proposal under consideration was the construction of a light line of railway estimated to cost about £2,500 per mile. Starting from Byrock, the country, which consists of red soil, is generally free from liability to flood to within 2 miles of the Bogan River, a distance of 32 miles, with quartz and ironstone ridges necessitating small cuttings and a considerable amount of curvature, and some culverts, but no important bridges. Immediately on the other side of the Bogan the country changes to a black soil, and a considerable area of it being liable to flood, several rather large bridges would be required. The first bridge would be at the Bogan River, where a viaduct would also have to be built for about a mile or a mile and a half as a provision against floods. Six miles beyond the Bogan another bridge would have to be built—across the Nyrang Bogan. From that point onwards the line would follow a buddah ridge to within half a mile of the Tarrion Creek, which is an overflow of the Barwon, and thereabouts a considerable area liable to flood would have to be bridged over. The Tarrion Creek is 54 miles from Byrock. For the remainder of the journey, to Brewarrina, about 6 miles, the country consists of open plain, and provision would have to be made to permit of the passage of flood-waters. The line would not be difficult of construction, and ballast could be obtained either from the immediate neighbourhood or from quarries conveniently situated on the main Western line. The station at Brewarrina would be built on Government land—a 60-acre reserve being available for that purpose. The amount that would have to be paid for resumption or severance is inappreciable.

Description of
the proposed
railway.

Suggested extension of the proposed railway.

Although the proposal before the Committee was merely for the construction of a railway from Byrock to Brewarrina, a future extension of the line to Goodooga was urged, in order to secure Queensland traffic principally by tapping the St. George basin country. It was, however, admitted that a line which has been suggested from near Narrabri to a point somewhere between Angledool and the Barwon might attract traffic which it is said would otherwise come to this railway, whether it were or were not extended to the border.

The Sectional Committee were informed that in the St. George basin country from 3,000,000 to 4,000,000 acres have lately been thrown open for smaller settlement, and that some of that land has been taken up by persons who are interested also in pastoral pursuits on the New South Wales side of the border.

The nearest Queensland railway is said to be a considerable distance from St. George, and at the present time large numbers of sheep and cattle cross the border and make their way *via* Brewarrina to some point on the Western railway below Byrock, turning off between Brewarrina and Byrock, because of the badly watered and insufficiently grassed track between the Bogan and the last-mentioned town. Several important stock routes from the Queensland border converge at Brewarrina, and it is asserted that the proposed railway (even if the terminus were at that town) would always secure additional traffic on that account. There is also, the Sectional Committee were told, a movement on foot for the establishment of a meat-works, fellmongery, scouring works, and a boiling-down at Brewarrina, which would be partly supplied with Queensland stock.

River navigation.

In connection with the navigation of the river, in relation to the proposed line, it was pointed out that above Brewarrina there are nearly 60 miles of water navigable almost all the year round, and that goods arriving at Brewarrina by railway could sometimes be conveyed to their destination, between that town and Walgett, fourteen days before the state of the river below Brewarrina would permit of goods being brought up from Bourke, a consideration, no doubt, especially in times of drought.

The rainfall.

The district is watered by the rivers Culgoa, Narran, Birrie, Bokhara, Barwon, and Bogan, also by the Marra, Tarrion, and Womerah creeks; but owing to the severity of droughts some of these watercourses are occasionally dried up for a long period, the average rainfall being between 15 and 20 inches, the quantity varying considerably in different parts of the district.

How the land is occupied.

Most of the land in the Brewarrina district is in occupation under either pastoral or homestead leases, and at the present time there are available for further settlement (excluding the county of Gregory) 50,000 acres. The area at present available for settlement in the Land District of Brewarrina East is 6,400 acres. The leasehold areas expiring in 1900, which can then be made available for settlement, comprise 307,000 acres. The area which could be made available by withdrawal under section 6 of the Crown Lands Act of 1895 is: Around Goodooga, 17,000 acres; around Brewarrina, 30,000 acres; total, 47,000 acres. The area comprised in reserves for railway purposes, 1 mile on each side of the original trial line, and a reserve at the Bogan River, is 73,600 acres; but these reserves cannot all be made available for settlement until the expiry of pastoral leases, about the year 1913.

As regards the area enclosed by the red lines on what is known as Mr. Sawers' map, the particulars as furnished by the officials of the Local Lands Office are as follows:—Total area, 4,505,600 acres; area in pastoral leases, 2,376,000 acres; area in homestead leases, 1,584,000 acres; number of pastoral leases, 35; number of homestead leases, 162; area at present available for settlement, 56,320 acres; area which will be available in 1900 (upon expiry of Central Division leases), 198,400 acres; area of railway reserves not in leasehold areas in Western Division on Byrock-Brewarrina railway trial lines, 13,440 acres, of which 1,600 acres are within the Brewarrina common.

The character and capabilities of the district.

The Sectional Committee were informed that at the time of their visit the season in the Brewarrina district was an exceptional one, owing to a recent abundant rainfall.

Between Byrock and Brewarrina much of the country before reaching Gongolgon was found to be of an inferior description for grazing. However, an improvement was noticeable on approaching Gongolgon, and in going thence to Brewarrina.

After

After crossing the Barwon, and proceeding through Quantambone towards Goodooga, the true character of the major portion of the Brewarrina district was revealed, and during the investigation evidence was given which confirmed the statements of witnesses who had been previously examined before the general Committee, as to the excellence of the pasture for fattening stock.

The importance of the district being evident, the fact should be borne in mind that nearly the whole of the area in question is unalienated, and its development would be much assisted by the proposed railway, with largely beneficial results to those who have already made their homes there.

The testimony of the Chairman of the Land Board, formerly the District Surveyor, who has frequently travelled over all the district, and also the evidence of the Stock Inspector, corroborated by numerous witnesses (the latter of course more or less interested in obtaining the proposed railway), are conclusive as to the superior quality of the extensive area referred to as enclosed by the red lines on Mr. Sawers' map. These lines embrace over 4,000,000 acres that would be served by the proposed railway, and it is estimated that that tract of country is capable of carrying about 1,500,000 sheep. The returns furnished by stock-owners do not show that number, without credit being given for removals during the six months preceding the date upon which information is, according to law, furnished to the Department.

If any further proof of the superiority of the district for grazing purposes were required, it could be found in the fact that the rents of Crown lands in the Brewarrina district are higher per acre than the rents of Crown lands in any other district within the jurisdiction of the Bourke Land Board. With absolutely safe stocking, the Chairman says, 1,450,000 sheep may depasture, and, in his opinion, the carrying capacity of the land could be considerably increased by further improvements.

There are only from 9,000 to 10,000 cattle, and very few of these are fattened there for market.

It is said that the construction of the proposed railway would enable landholders to profitably combine agriculture with grazing, which is practically the only industry now carried on in the district. So far, they have grown wheat and oats merely for station consumption in the shape of hay; but it is believed that a railway would lead to increased settlement, and result in agriculture being carried on upon a larger scale, more particularly as regards cereals and fruits.

There is no doubt that, in fair seasons, a comparatively small area may be cultivated profitably to meet local requirements; but, owing to less favourable climate and other adverse conditions, it is questionable whether the Brewarrina district would be able to successfully compete against districts possessing more suitable soil and having a lower temperature and a greater and more regular rainfall, with the additional advantage of nearness to the best markets for the disposal of their surplus production.

The Sectional Committee, therefore, in dealing with the proposal for a branch railway from Byrock to Brewarrina, have discarded any expectations of traffic not based on results that may be reasonably looked for from what is rightly described by all the witnesses as a splendid pastoral district.

From a perusal of the evidence it will be seen that the case of those who advocate the line rests mainly upon the grounds that they would be greatly con-
 Reasons in support of the proposed railway.
 venienced by having railway communication 60 miles nearer than they have it at the present time; that station produce now sent to Bourke either by road or by river would be put upon the railway at Brewarrina and charged for at local rates; and that, inasmuch as the existing Bourke to Byrock section of the Western line is practically non-productive (the rates for station produce from either of those places to Sydney being nearly the same), the Railway Department would reap the benefit of absolutely new revenue, and the earnings of the branch from Brewarrina to Byrock would be ample to pay interest on its cost of construction as well as the working expenses.

Undoubtedly the residents of the district would be convenienced in having additional and quicker means of transit from Brewarrina to the Western line, and their contention that the section between Byrock and Bourke is unremunerative
 Would the proposed line pay?
 must

must be admitted ; but the Railway Commissioners, through their late Goods Superintendent and present Chief Traffic Manager, Mr. Harper, join issue with the advocates for the proposed railway as to the prospects of its being a paying line, at any rate for many years to come, and estimate an annual deficiency of £4,299.

The Sectional Committee, after carefully sifting the evidence given at Brewarrina, regard the probable volume of traffic as being a very open question.

The Railway Commissioners' opposition to the proposal.

To the fear of indirect disastrous results from river competition, and a possibility of adding another non-paying branch to the list of unprofitable railways, must be attributed much of the strong opposition of the Railway Commissioners ; but if it can be demonstrated that the Department would not suffer any loss from the construction and working of the line, it would be manifestly unfair to the people of the district to deny them the much craved for benefit of railway connection.

The Chief Traffic Manager, notwithstanding the figures and sworn testimony placed before the Sectional Committee, most emphatically insists on the fulness of his estimate of earnings, and that he has given the branch line credit for all the traffic which, under the most favourable conditions, could be reasonably expected to reach it, either at or between Brewarrina and Byrock. He claims to have sources of information which enable him to testify with absolute accuracy as to the tonnage received at Byrock and Bourke, including the weight of the wool-bales (in regard to which there were differences of opinion, even on the part of expert witnesses at Brewarrina) ; and he asserts that, in estimating the traffic belonging to the Byrock-Brewarrina district, he has included every thing brought by road, as well as that conveyed by steamers on the river.

Whilst great weight must be attached to this positive evidence given on behalf of the Railway Commissioners by their trustworthy, able, and experienced officer, the equally positive evidence given by well-informed local witnesses of repute, to the effect that the traffic would be ample to cover both working expenses and interest, cannot be ignored, although, as already indicated, the Sectional Committee do not see their way to accept it as conclusive.

Proposal to levy a special land tax.

The evidence as to probable earnings is so conflicting, and consequently the payableness of the proposed line so much in doubt, that the Sectional Committee are of the opinion the traffic problem might well be solved by the adoption of a course suggested by the evidence of the Member for the district, viz., the making of a slight addition to the rents of the Crown lessees (who would be the principal gainers from the construction of the line) until it can be clearly shown that the railway is self-supporting.

The Sectional Committee, in making this suggestion, bear in mind the fact that several of the witnesses who are engaged in pastoral pursuits expressed their willingness (because it would be worth their while from a pecuniary point of view) to pay for the carriage of their wool from Brewarrina to Byrock, even more than the freight that the Railway Commissioners propose to charge, in preference to using the river.

Fully recognising the claims of the district to generous consideration, the Sectional Committee are indisposed to make an adverse report in connection with the matter entrusted to their investigation if the Railway Department can be protected against the anticipated deficiency, and an arrangement of the nature suggested would give the wool-growers a direct pecuniary interest in the success of the railway, as well as fully provide for the risk of the line entailing an annual loss to the Railway Department.

Therefore, under all the circumstances, they feel justified in recommending that the proposed line should be constructed on the condition, but not otherwise, that the consent of the Crown lessees be first obtained (in such a way as would make the compact legally binding upon them until the railway should become self-supporting), to the payment by them of one farthing per acre rent (additional to their present or ordinary assessment), which on, say, 4,000,000 acres, would yield about £4,000 per annum, and the amount to be credited to the Railway Commissioners.

F. T. HUMPHERY,
Chairman.

5 April, 1898.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

MINUTES OF EVIDENCE.

RAILWAY FROM BYROCK TO BREWARRINA.

[TAKEN BEFORE THE SECTIONAL COMMITTEE.]

MONDAY, 14 MARCH, 1898.

[The Sectional Committee met at the School of Arts, Brewarrina, at 3 p.m.]

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (CHAIRMAN).

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

The Sectional Committee proceeded to consider the expediency of constructing a line of Railway from Byrock to Brewarrina.

Richard James Kelly, chemist and druggist, Brewarrina, sworn, and examined:—

1. *Chairman.*] Have you prepared any statement to place before the Committee? Yes. I have been in Brewarrina thirty-one years. I lived in Bourke four years before I came to Brewarrina. I am of opinion that Brewarrina is entitled to a railway for many reasons. Large numbers of travelling sheep and cattle cross here annually. The Brewarrina district has been favoured by nature in having the Cato, the Bokhara, the Narran, the Birie, the Culgoa, the Upper Barwon, and the Barwon Rivers, besides tributaries to those watercourses. I would point out to the Committee that on several occasions very conflicting statements have been made in regard to the estimated cost of the proposed line from Byrock to Brewarrina; and I think that the estimate given by the Engineer-in-Chief could be reduced, judging by the cost of lines in similar country. He is mistaken when he states that no ballast could be obtained along the route of the proposed line from Byrock to Brewarrina. I think that a reduction of the estimate is a very important matter for your consideration.

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2. Are you speaking of the latest estimate? Yes.

3. Do you know the amount of the latest estimate? I understand that the cost of the proposed railway, as estimated by Mr. Deane, will be £146,350—for about 58 miles, at £2,500 per mile. I think that that estimate might be considerably reduced. One of the reasons why I am in favour of the construction of the proposed line is because it would serve the homestead lessees, graziers, and settlers residing on the Bokhara, the Birie, the Narran, and the Culgoa Rivers, and others in the neighbourhood of Goodooga, and, indeed, a very large population right out to the Queensland border, who now have a very great difficulty in obtaining their supplies. In order to keep that traffic, I think that at no distant date the proposed line should be continued to Goodooga. It has been stated that goods have been conveyed by river from Brewarrina to Bourke for 12s. 6d. a ton; but I know that the freight charged is from £1 to 25s., and even 30s., per ton. I may say that I have seen teams laden with wool going to Byrock, notwithstanding the fact that steamers have been lying here, the people preferring to send their wool to Byrock by road rather than to send it by steamer to Bourke. A great many of the station-holders do not care to send their wool by steamer, on account of the double handling. During the late drought, and also during the many droughts that I have witnessed here, numbers of sheep and cattle might have been saved if we had had an opportunity of getting them away to places where there was plenty of grass and water. During the last big flood—the flood of 1890—we had from 50,000 to 55,000 sheep camped on the common; and in the case of a big flood we are able to save many sheep on account of having the ridges there. I think that this part of the country is well adapted for wheat-growing, or at any rate portions of it are. For some years I kept a very careful account of the quantity of wool passing through Brewarrina and going by teams or by steamer, and during a period of thirteen or fourteen years the average number of bales that passed through each year was from 25,000 to 30,000. I am of opinion that Mr. Harper's statement in reference to the wool is not correct. I think he has been misinformed as to the quantities. I believe that the average number of sheep passing here annually would be something like 700,000 or 800,000, with the addition of from 80,000 to 100,000 head of cattle.

4. Do you mean fat sheep for the market? I would not like to say that all that stock was going to market, though unquestionably many of them were. Whether stock would be sent by the proposed railway from Brewarrina to Byrock is a question that would depend on the railway freight. I do not think that any sane man would drive his stock 60 miles if he could send them by train at a charge of 2d. per head for sheep and 1s. 6d. or 2s. per head for cattle, because travelling them 60 miles by road would reduce the "fats" considerably. I do not see how the construction of the proposed line from Byrock to Brewarrina could be regarded as robbing the line from Byrock to Bourke, seeing that goods are carried to or from Coolabah for £48 10s., and to or from Bourke for £41. I think that the Bourke end of the main Western line is run for nothing in the interests of one firm. The stock-owners in this district are willing to pay from 15s. to £1 a ton freight from Brewarrina to Byrock, and it will be a vast advantage for the Government to be able to get some revenue from the proposed railway from Byrock to Brewarrina. Mr. Harper states that, at the time of his visit to Brewarrina there were 153 homestead leases in the district, and that he had heard that the number of homestead lessees was decreasing. He also states that there were 118 stock-owners in the district, and that their number was decreasing. He likewise states that there are three travelling stock routes between Brewarrina and Byrock, whereas I know of only two. I think he has been misinformed with regard to those matters. I have also heard that the Railway Commissioners have stated that they never recommended this line for consideration. I will later on show you their recommendation. On several occasions in the evidence given before your Committee, some of the witnesses have stated that no wool from

R. J. Kelly. this district passes through Bourke, but I can prove that a good deal passes through Bourke and goes down the river. It is not correct to say that all the wool passing through Brewarrina to Bourke goes on to the railway at Bourke, because some of it has passed through Bourke, and has gone on by the river to South Australia. I am of opinion that if the proposed railway from Byrock to Brewarrina were constructed a boiling-down establishment and a meat-freezing works would be established at Brewarrina.

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5. You have said that later on you would show that certain statements made by Mr. Harper are not correct;—do you not think that it would be convenient for you to state now in what respect Mr. Harper's statement is inaccurate? Yes. As regards the quantity of wool and other things that would be carried by the proposed railway from Byrock to Brewarrina, Mr. Harper, first of all, puts it down at 2,000 tons of goods at 10s. a ton, 3,100 tons of wool at 10s. a ton, and 330 tons of wool at 7s. 6d. a ton, and 1,000 trucks of live stock at 15s. 6d. a truck. I think he would be nearer the mark if he said 4,000 trucks. One firm alone in giving evidence before your Committee said they used 900 trucks themselves. That would leave a very small margin for the other firms. Mr. Harper's statement is also incorrect as to the quantity of wool.

6. Will you be good enough to show us in what respect it is incorrect? Mr. Harper, excluding the traffic arriving at Brewarrina for and from Walgett and above stream, puts down the goods at 1,300 tons, and wool at 1,500 tons and 330 tons, and then he goes on to state that he does not think that even that amount would be reached. I am of opinion that he has estimated the quantity of wool at about 1,000 tons less than would be carried.

7. On what do you base your opinion? I judge from my experience in years gone by, and I say that, as we are now receiving the wool from the district north of Brewarrina, the quantity of wool that would be sent by the proposed railway from Brewarrina to Byrock would be about 5,000 tons, whilst about 5,000 tons of goods would also be conveyed by the proposed line, making altogether 10,000 tons per annum. Mr. Harper does not say where he got his information from.

8. You say you are of opinion that, instead of the quantity estimated by Mr. Harper—1,500 tons—the quantity of wool that would be conveyed by rail from Brewarrina in the event of the proposed railway from Byrock to Brewarrina being constructed, would be 5,000 tons? Between 4,000 and 5,000 tons.

9. But you have not given us any data? I kept returns for several years, but eighteen months or two years ago I gave the proprietor of the local paper those returns, and they have, unfortunately, been burnt. 10. What you have put forward now is simply your own opinion? Yes. I said the same before the Sectional Committee on the proposed construction of locks and weirs on the river Darling about eighteen months ago, when I had the information quite fresh in my mind.

11. Have you any details showing from where the 5,000 tons would be obtained? No; I have not any details, but I know the various stations, and I think that my evidence as to the quantities will be borne out later on.

12. We may regard what you have said as being a matter of opinion that will be supported by evidence yet to be submitted to us? Yes.

13. You say that the 1,300 tons of goods is an under estimate? Yes.

14. What is your reason for challenging Mr. Harper's statement? I myself kept an account for fifteen or sixteen years of the goods in and out carried by teams and other means, and I found that the average was about 10,000 tons annually.

15. Will any evidence be submitted that the probable freight between Byrock and Brewarrina in respect of goods will be 5,000 tons instead of 1,300 tons? Yes; that evidence will be submitted to your Committee. The next matter is the live stock. Mr. Harper gives credit for 1,000 trucks of live stock at 15s. 6d.

16. How many trucks do you say? I shall be nearer the mark if I put down four times the quantity—that is for sheep and cattle.

17. You estimate that there will be 5,000 trucks? No, 4,000—2,500 trucks of sheep, and 1,500 for cattle. I am putting down about one quarter of the number that passes Brewarrina.

18. You say that there are only two travelling stock routes between Byrock and Brewarrina? I went for information to the Chairman of the Land Board, and I could not find that there were more than two stock routes between Byrock and Brewarrina.

19. Will you mention the two stock routes to which you refer? One goes by Gongolgon, and the other by Tarcoon.

20. Do you think that the estimated receipts of the proposed railway from Byrock to Brewarrina would be affected by any error on Mr. Harper's part as to the number of stock routes between Byrock and Brewarrina? I think that his statement that there are three stock routes between Byrock and Brewarrina is an incorrect statement. I am not prepared to differ from Mr. Harper in regard to the amount of passenger traffic put down by him—1,500 passengers. I think that that is as near as we can get in regard to that matter. I have not gone into it carefully enough to understand the matter properly, but Mr. Sawers, who has already given evidence before your Committee in Sydney, has gone into it.

21. The next point to which you referred was that the railway between Byrock and Bourke would not be occasioned any great loss by reason of the construction of the proposed railway from Byrock to Brewarrina;—will you explain why? My reason for saying that is that goods going to or from Coolibah now are charged for at the rate of £48 10s. a truck, and that the charge for carriage to or from either Bourke or Byrock is £41, and if the Government could get 15s. a ton for the carriage of goods on the proposed railway from Byrock to Brewarrina, I fail to see where the loss would come in.

22. What you say is, that, as there would be a local rate between Byrock and Brewarrina, there would be a gain instead of a loss, inasmuch as only a nominal rate is now charged between Byrock and Bourke? That is exactly it. The rate from Bourke down freight is the same as from Nyngan, and therefore the rate that would be charged on the proposed railway from Brewarrina to Byrock, 15s. a ton, would compensate for any possible loss on the back loading.

23. In other words, you contend that the steamer earnings on the river between Brewarrina and Bourke would go to the Railway Commissioners;—is that so? That is correct.

24. You say that a rate would be charged between Brewarrina and Byrock which would be fairly equivalent to that now paid for conveyance by steamer from Brewarrina to Bourke? Yes.

25. And that inasmuch as the freights charged from Bourke to Sydney are similar to the freights from Byrock to Sydney on nearly all classes of goods, there would be a considerable gain to the railways by the running of the proposed line from Byrock to Brewarrina, without any loss to the main line? Yes; Mr.

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Shainwald, in his evidence, stated that it was doubtful whether the owner of Boorooma station would send his wool by the proposed railway, but I have a statement from the late manager and the owner of the station themselves as to whether they would prefer the locking of the river to the proposed railway, and it is to the effect that even if the river were made permanently navigable the owner of Boorooma station would prefer to use the Byrock-Brewarrina railway, and the owner of Boorooma station told me himself personally that he would prefer to put his wool on teams and send it by railway from Brewarrina rather than putting it on the river at all. He said: "I am certainly in favour of the proposed railway from Byrock to Brewarrina in preference to locking the river."

26. When you made a statement as to the rates between Byrock and Brewarrina you said something as to steamer freights—by way of comparison? Yes; I have never known the steamer freight to be less than £1 a ton, and the general freight is 25s. I have known it to be as high as 35s.; in fact, I have paid that amount myself.

27. Do you happen to know the rates at the present time? Yes; the steamer rates are 25s. and 30s. per ton.

28. What are they by team to Byrock? About 25s. or 30s. The people prefer now to put their goods on the teams rather than to put them on the steamer.

29. You contend that if the Railway Commissioners could carry the traffic at half that rate there would be no river competition? None whatever. The steamer proprietors say that the present rates do not pay them, therefore there is a very poor chance of their carrying goods—as Mr Harper says they might—at 5s. or 7s. 6d., even if the river were permanently improved.

30. Do you think that the wool coming into Brewarrina would be sent on to Bourke or would be put on the train at Brewarrina? The wool coming in to Brewarrina would be put on the railway at Brewarrina.

31. You have stated that the rate from Bourke to Sydney is the same as the rate from Byrock to Sydney; therefore wool going from Bourke to Sydney would be taken at the same rate as from Byrock? Yes.

32. Would the wool put on the steamer above Brewarrina go on to Bourke, or, if not, what advantage would it be to the owner to put his wool on the trucks at Brewarrina? I do not think that the owners would put the wool on the steamer at all.

33. You contend that no wool would come down stream to Brewarrina, but that all wool reaching Brewarrina would come by team, and be put on the train at Brewarrina? Yes; that is what I contend, judging from what the owners of the wool have told me. With reference to Mr Harper's statement that there are only 118 stock-owners in the district, I have a reply from the Stock Office, dated 17th November, 1897, in answer to a letter written by me on the subject, and showing that there were 227 stock-owners in the district on the 31st December, 1896, and on the 29th October I ascertained from the Land Board Office at Bourke that there were in the Brewarrina district 152 current homestead leases.

34. Therefore, Mr Harper's statement that there were 153 is incorrect? Yes; but it is also incorrect to say that they were leaving the district.

35. I gather from your statement that you have no personal knowledge of the matter, but that the information you have obtained is from official records? That is so.

36. In the first portion of your statement you allowed us to infer that the Railway Commissioners at one time recommended the construction of a railway between Byrock and Brewarrina;—what evidence have you to offer on that point? The Railway Commissioners, in their Annual Report for the year ended 30th June, 1891, on page 8, made a direct recommendation. They said:—

We would suggest for consideration in dealing with railway extensions in districts like Jerilderie and Deniliquin, Narrabri and Moree, Byrock and Brewarrina, where the country is practically level, and the traffic will be very light, that lines to be designated "pioneer lines" be constructed at a cost of about £1,750 per mile, exclusive of bridges and land (which latter we hope can be dealt with as suggested on page 7), the trains to be worked at a speed of about 15 miles per hour, and during daylight only. Later on, when the traffic has developed, and will justify the class of line being raised, a capital vote to be granted as to make the line capable of carrying the traffic under the same conditions as on other parts of the railway.

As an illustration of how outlying branch lines may be cheapened, the short line from Yass station to the town, a length of about 2 miles 64 chains, may be cited. By arrangement with the Works Department, selected second-hand rails have been used, which will carry the traffic for many years, and the cost for rails and carriage amounted to £1,420, instead of £3,016, as would have been the case under the old system.

37. Do you contend that since that report was published in 1891 nothing has occurred that should induce the Railway Commissioners to alter their views with regard to a railway between Byrock and Brewarrina? Nothing, in my opinion.

38. Within the past eight years has there been any development in the district which would, in your opinion, improve the prospects of the proposed railway? Considerably so.

39. Will you state generally what they are? There have been homestead leases taken up in the district, and we know now what we did not know before, viz., that this may be considered a wheat-growing district.

40. Has there been any increase in settlement or in the number of stock? Yes; according to the returns there has been an increase in the number of stock, and also an increase in the number of homesteads as well.

41. Has there been a large increase in the population of the district during the last eight years? I would not like to say that there has been a large increase, but there has been an increase. Mr McIntyre says that there has been an increase since 1894.

42. You said that before you came to Brewarrina you resided for a considerable time at Bourke;—were you there during the time of the agitation for the Bourke railway? No; I was living at Brewarrina, but I used to travel backwards and forwards to Bourke. I was there two or three times a week.

43. At that time did you interest yourself in the proposal for a railway to Bourke? Yes; and I then tried to prevent the railway from coming through Brewarrina.

44. At the time of the proposal to construct the Bourke line you opposed a railway being made to Brewarrina? Yes, considerably.

45. And you supported an extension of the railway to Bourke? Yes.

46. On what grounds did you support an extension of the railway to Bourke, and oppose an extension to Brewarrina? I was of opinion that if the railway came to Brewarrina, and went on from Brewarrina to Bourke, the trade of this town would be lost, and the trade would be taken to Bourke; therefore I blocked the line from coming to Brewarrina, and allowed it to go to Bourke by the present route.

47. You were of opinion that a railway to Brewarrina would be injurious to the district? Yes, if it were carried on to Bourke from Brewarrina, as I thought it would be. It was not then proposed to make the railway from Byrock to Bourke. The proposed railway was to come *via* Mount Harris, Warren, Cannonbar, Gongolgon,

R. J. Kelly. Gongolgon, and Brewarrina. It was the route that I objected to; therefore I opposed the line then proposed.

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48. Your fear being that the railway would be extended from Brewarrina to Bourke? Yes.
49. And that the railway reaching as far as Bourke, the district of Brewarrina would be prejudicially affected? Yes.
50. *Mr. O'Connor.*] You wished to have Brewarrina a terminus? Yes.
51. And now you advocate making Brewarrina a terminus? No; I have no wish to do that. I wish the railway to go on to Goodooga, and to catch the Queensland trade there.
52. *Chairman.*] At that time you entertained parochial views, but now your views have widened? Yes; I was young then. At another time I advocated the locking of the river. That is many years ago; but I have seen the error of my ways in regard to that.
53. You have no doubt now that this district would be very largely benefited by the construction of the proposed railway? That is certainly my opinion. I would not advocate it if I did not think that. Considering the quantity of goods that I have named, and the stock that would leave here, I am satisfied that the traffic on the proposed railway would justify its construction, and that it would not rob the Bourke line of 1d. The proposed line might take some traffic from the Bourke line, but there would be no loss of revenue to that line, whereas on the other hand there would be a good deal of gain by saving the wear and tear of the line to Bourke.
54. You say you think that Brewarrina should not be the terminus of the proposed railway;—in what direction do you think it should be extended? I think it could be safely extended to Goodooga. Brewarrina has a district of its own independently of Goodooga, and can hold its own, but I think that the proposed railway should be extended to Goodooga, more especially to catch some of the Queensland trade. Some of the station-holders on the other side of the Queensland Border send their sheep across to be shorn on this side of the border in order to avoid payment of the Queensland export duty on wool.
55. You think that by the extension of the proposed railway to Goodooga much of the traffic that now goes by the Queensland lines would go by the New South Wales lines? That is my view of the matter.
56. You think that Queensland sheep would be shorn on the New South Wales side of the Border and that the wool would be put on the trucks at Goodooga? Yes.
57. If you wish to say anything further on the subject, we will be glad to hear anything you desire to say? I understand that Mr. MacVean will be unable to attend as a witness before you, but the evidence that he gave during the inquiry in reference to the proposed construction of locks and weirs on the river Darling would be pertinent to this inquiry, and should be read with the evidence elicited by you. I desire to quote from the evidence given by Mr. Millen, M.P. for Bourke, on the 24th June, 1896, in regard to the proposed construction of locks and weirs on the river Darling, because, in my opinion, what he said strongly supports the proposal for the construction of a railway from Byrock to Brewarrina. He said:—

I am a journalist and Member for the Electoral District of Bourke. I am familiar with the proposal before the Committee. I had not intended to make any statement before the Sectional Committee; but I have been so long interested in this subject, and have such an intimate knowledge of the district affected by the proposal, that I think I should do so. The Brewarrina district is unquestionably the finest pastoral district in the Western Division. It has the heaviest settlement, and, in my opinion, has developed to such a stage as to entitle it to some better means of communication than now exist. There has always been, and is now, a demand which I regard as legitimate for railway communication with the Western line. I view this proposal as an alternative to that. The railway proposal, if carried out, would offer the advantage of better transit; but would not offer, as the improvement of the river does, that advantage coupled with an abundant supply of water.

I may also point out that when Mr. Scarr was asked to give an estimate of the cost of a road from Brewarrina to Byrock, he put it down at £150,000—from which, of course, there would be no revenue; and Colonel Wells, on being asked to further go into the matter, estimated the cost of the road at £400,000. Comparing that with a railway which would cost £140,000, and which would be revenue-producing, I know which is the better. I may point out in favour of the construction of the proposed railway that there are three banks established at Brewarrina, and from what I can see they have no notion of leaving the town. I refer to the New South Wales, the Commercial, and the Joint Stock Banks, who have purchased land here. That shows that we are not in a state of insolvency.

58. It shows that there has been an increase in the commerce of the district? Exactly. The Commercial Bank has been established here twenty years, the Bank of New South Wales eighteen, and the Joint Stock Bank eight or nine years.

59. *Mr. O'Connor.*] You point to the fact that the Bank of New South Wales and the Commercial Bank had been established here for some years, and that notwithstanding that another large bank came and has been established here for eight or nine years, and your deduction from that is that they would not have come here if they had not had a reasonable confidence in the prosperity of your district? Certainly. I am greatly astonished at the peculiar interest displayed by the Bourke people in regard to the proposed railway from Byrock to Brewarrina, as is shown by the evidence they have given. When Mr. Bacon was giving evidence at Sydney, he was asked:—

Would you, as a pastoralist, be prepared to pay from 15s. to 17s. a ton as a local rate between Brewarrina and Byrock?

His reply was:—

I would be prepared to pay an extra local rate. According to the *Daily Telegraph's* report of Mr. Harper's evidence he has told the Committee that if the interests of the carrying companies at Bourke are disturbed, they may take the trade away to South Australia. I cannot understand why he should make such a statement. People are not in the hands of the large carrying companies. There are only two carrying companies in Bourke, and I am sure that they would not be able to induce people to send their wool to Adelaide.

60. There are three carrying firms, are there not? I do not know of my own knowledge. I know only Wright, Heaton, & Co. and Rich & Co.

61. *Mr. Fegan.*] What you wish the Committee to understand is that you, as a resident of Brewarrina for thirty-one years, prefer the people of Bourke to take an interest in somebody else—that you are perfectly able to take care of your own interests? That is exactly what I wish to convey.

62. What we, as a Committee, desire to ascertain is the various reasons why you think the proposed railway from Byrock to Brewarrina should be constructed, but you have been combating other men's reasons, instead of giving reasons of your own, why the proposed railway should be constructed—is that not so? Yes.

63. What are your chief products in the Brewarrina district? Fat stock, wool, and hides.

64. Where is your nearest market? I do not think there is a market nearer than Sydney.

65. How do you get your goods to market—do teams take them to Byrock or to Bourke? Sometimes to Bourke and sometimes to Byrock.
66. It depends a great deal on the state of the roads, and of the feed along the roads? Yes.
67. Have you any idea what the charges are on the various roads? I have already stated that they are 25s. and 30s. a ton.
68. The charge for wool is 25s. or 30s. a ton, but you would not get other goods taken at that rate? We have to pay very often more—35s. and 40s. a ton.
69. But the people of Brewarrina do not live on wool or hides; there are necessaries of life that you have to get from elsewhere, because you do not produce them in Brewarrina. Would you mind mentioning the rates in regard to these? Other gentlemen who are better seized with the facts of the case will do that.
70. Have you anything else to say? Yes? there is the estimated cost of the line.
71. Have you seen the figures that Mr. Deane has given? Yes.
72. Does he not give very good reasons why the estimate should be £2,500 a mile? Very good reasons indeed.
73. You cannot object to that? No; because he states distinctly that he makes provision in case of flood.
74. Comparing the expenditure per mile of the proposed railway with the expenditure on other lines, you think that that is a fair estimate? I do, because what is put down for ballast, I think might well be spent in making extra provision against floods.
75. Is there anything else you wish to say? I know of one boat that in one year earned £4,433 11s. in running between Bourke and Walgett. That boat was plying between Bourke and Walgett only.
76. Do you think that as soon as the proposed line were constructed that boat would be taken away? I would not like to say that.
77. How, then, would it help the proposed railway? What I wish to point out is that one of the reasons why the steamer people oppose the proposed line is that that steamer earned that amount in one year. I would also point out that Mr. Harper says that the proposed line of railway could earn only £3,600 a year, whereas that boat alone, without carrying passengers, earned nearly £4,500 in one year. If that steamer could earn that amount the proposed railway, carrying many other things beside wool, would earn ever so much more.

R. J. Kelly.
14 Mar., 1898.

TUESDAY, 15 MARCH, 1898.

[The Sectional Committee met at the School of Arts, Brewarrina, at 10 a.m.]

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (CHAIRMAN).
The Hon. DANIEL O'CONNOR. | JOHN LIONEL FEGAN, Esq.

The Sectional Committee further considered the proposed Railway from Byrock to Brewarrina.

Thomas Huggins, pastoralist, Oakleigh Station, near Brewarrina, sworn, and examined:—

78. *Chairman.*] Where is your holding? On the Bogan, between Brewarrina and Byrock.
79. *Mr. O'Connor.*] How long have you resided in this district? Ever since 1863.
80. You know this district well? Yes.
81. You know its capabilities? Yes; I have seen it both at its best and at its worst. I have seen some very good seasons, and a number of droughts.
82. What is the area of your holding? We have about 65,000 acres in the family—we hold homestead leases amounting to that.
83. How do you utilise it? With sheep, cattle, and horses.
84. Any agriculture? Yes; this year I am putting in about 80 acres of wheat.
85. That would be for home use? Yes, and for sale.
86. Is the land between Byrock and Brewarrina fit for agriculture? The whole of it between Byrock and the Bogan is.
87. I mean along the surveyed route of the proposed railway between Byrock and Brewarrina? I think that between the Bogan and Byrock there is good agricultural country for about 25 miles.
88. How far is the Bogan from Brewarrina? It is about midway between Byrock and Brewarrina.
89. Would you, in your own way, tell the Committee your reasons for supporting the proposed railway;—I presume you are in favour of it? Yes, I am. I think that a railway from Byrock to Brewarrina would tap one of the richest pastoral districts in New South Wales—that is the country lying between Brewarrina and the Queensland Border, Goodooga way. The country between the Culgoa and Walgett, I think, is some of the richest pastoral country in New South Wales, but, of course, its productiveness depends on the extent of the rainfall. I think that instead of carrying a sheep to 7 acres it would, in many places, carry a sheep to 2 acres or even 1 acre if the present rainfall were more regular; but, apart from that, I think that in many places it is a good agricultural district. I know a neighbour of mine who has gone in for agriculture during the last three years. For the first season he put in about 100 acres from which he got about 1 ton and a half of hay to the acre, and also grew his own seed-wheat. The year before last he had a very good crop again of hay, and also grew his own seed-wheat. Last year he put in 160 acres, and I think that he sold over 80 tons of splendid chaff, and also had seed-wheat sufficient for himself and some for sale. A sample of his seed-wheat compared very favourably with seed-wheat for which I gave 6s. a bushel, and which came from another district. His wheat was as good as that, with the exception that it contained a few smaller grains, it not having been so well graded. I am not prepared to go into figures as to the number of bales of wool, or the quantity of stock likely to be sent by the proposed railway from Byrock to Brewarrina, but Mr. Jameson and Mr. Machattie can perhaps tell you that. I do not think that the enormous number of live stock that would use the proposed railway could be ascertained at the present time, because on account of having a bad road for stock between Brewarrina and Byrock a good deal of the stock is taken by other routes, whereas if the proposed railway from Byrock to Brewarrina were constructed the stock would be brought to Brewarrina and would be put on the railway here, with the result that the stock-owners would be saved a good deal of expense, and also loss of stock. I am quite sure that if the proposed railway were constructed there would be a great deal of additional settlement in this district, and the rents of Crown lands would be increased. If we had cheaper means of getting our goods to and from the market, the settlement would be much closer, and I feel satisfied that the proposed railway would pay handsomely. I am not prepared to say that it would not interfere with other lines, but I do not think it would

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T. Huggins. would do so to any great extent. As regards the carriage by steamer between Bourke and Brewarrina, I have been told that it costs from 25s. to 30s. per ton, in addition to which the extra handling and the way the steamer employees knock the wool about in hauling it up and down the banks depreciate its value. I think that one of the chief things that would be sent by the proposed railway would be live stock. The country between Brewarrina and Byrock is very bad country through which to travel live stock in dry weather, especially fat stock. Some years ago certain gentlemen in this quarter offered to guarantee a certain amount of interest on the cost of construction of a railway between Brewarrina and Byrock. Those gentlemen had lived many years in this district, and were station-holders, and had a large interest in the district, and I do not think that they would have been likely to guarantee the interest and the working expenses of the line unless they had been perfectly satisfied that it would pay.

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90. To where do you send your wool? To Bourke.

91. What distance? Forty miles.

92. Is Bourke nearer to your holding than Byrock is? Yes, a little nearer, but the proposed railway, according to the present survey, would pass within a few miles of our top boundary. I always go to Bourke because things there are a little cheaper—rations and other things—although the cost of carriage is about the same.

93. On the average how many bales of wool do you send annually? About 300.

94. Live stock? From 4,000 to 5,000 sheep and cattle—but I have sold locally mostly. At one time I was sending a nice lot of cattle down.

95. Are there many holdings near you? Yes, quite a number. All the country is taken up in small holdings, and at the present time the landholders are clearing and ploughing, I suppose, over 1,000 acres of land for cultivation in my immediate neighbourhood. Mr. O'Dwyer is putting in something like 50 or 60 acres; Mr. Barton purposes putting in over 200 acres; I purpose putting in from 80 to 100 acres.

96. Principally wheat? Yes, for seed—wheat and hay. Mr. Lloyd is putting in 60 or 80 acres, and I think that Mr. Fennell purposes putting in nearly 100 acres—that is on this side of the Bogan between Brewarrina and Byrock. In my immediate neighbourhood I think that there are over 1,000 acres put under cultivation this year.

97. And if there were a railway from Byrock to Brewarrina affording a ready means of transit that would encourage a larger development of agriculture? I think it would, naturally.

98. How much do you pay a ton for the carriage of your goods to the railway? From 25s. to 30s. But wool they have carried at from £1 the last two seasons.

99. £1 is the lowest, I think? Yes; in fact it is a starvation rate for the carriers, and I do not know how they carry for that money.

100. Is there anything else you would like to say? I have a firm conviction that the proposed railway, would pay. I am not prepared to go into figures, but I am sure that it would be a great boon to the people on the other side of the river towards Goodooga even more than it would to us because we are nearer the main Western line.

101. Is Goodooga in a pretty direct line with the Queensland border? Yes, a pretty direct line. The railway, if extended in that direction, would go through very rich country there.

102. How are you situated here in regard to the rabbits? They are not very numerous here. On my holding I am nearer the rabbit line. The main railway line being netted is a great check to the rabbits coming in this direction. There is a certain increase, but not so much as you would naturally expect with the small means we have taken to check them.

103. They are not as serious a danger to you as they are in other portions of the Colony? I think not.

104. Is your own holding pretty free from them? We have a good number there, but by poisoning them I think we can keep them down. I do not fear the rabbits. Now that we can use phosphorised pollard we can keep them within reasonable bounds. I do not think that we shall ever get rid of them altogether, but we can prevent them from doing a great deal of injury.

105. You think that your neighbours are equally fortunate with yourself? Yes; I think they are in the same position, and if we went to work simultaneously with poison I think we could pretty well clear the rabbits out, at any rate, for a time. They will, of course, keep on increasing, if they are left alone.

106. Do you think that the construction of the proposed railway, and the bringing about of closer settlement, would be the means of finally extinguishing them? Certainly it would. It is on the large holdings now that there are the greater number of rabbits. On Beemery the rabbits were in very large numbers, but now, owing to the use of poison, they are diminishing. Beemery holding is enclosed with wire-netting, except along my boundary, and the rabbits keep on moving towards the north, the check that they receive from the wire-netting preventing their increasing to any great extent.

107. *Chairman.*] Have you had any experience of the country north of the Barwon? Yes; I have travelled over it.

108. In the direction of Walgett and Collarendabri? I have never been that way.

109. How far north have you been? Angledool is about the farthest place to which I have been in that direction.

110. Can you speak from personal knowledge as to the character of the country that would probably be served by the proposed railway? Yes; I can. That is, the country through which it would pass, and also the country through which I myself think would reap the greatest amount of benefit, and from which the largest quantity of goods would be sent to it, namely, the country north of the Darling, between here and the Queensland border.

111. Do you know the area of country comprised within those thick red lines on that country map? I know a portion of it only.

112. Will you describe the portion that you know? I know the country pretty well to the east of the stock route about 100 miles. On the West Bogan it is chiefly red soil, the greater part of which, I suppose, in years to come, will be placed under agriculture.

113. You think that all the red soil of the district will be suitable for agriculture? Yes. On the East Bogan it is all rich pastoral country; portions of it are suitable for agriculture; and on the East Culgoa the country is suitable for agriculture, whilst between the Culgoa and the Bogan I think it is chiefly pastoral country. Our rainfall is not sufficiently heavy to warrant our trying agriculture in the black soil, for it requires much more rainfall, but on the East Culgoa and the West Bogan I think every acre is suitable for agriculture.

114. Do you mean that within the "red" lines the area with which you are familiar is either good pastoral country or suitable for agriculture? Yes; that applies to all the land between the "red" lines. As regards the country between the Culgoa and the Bogan, I do not think that you can say there is any better pastoral country in New South Wales. T. Huggins.
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115. How many years have you lived in the district? Thirty-five.

116. Then you have an excellent knowledge of the rainfall? Yes.

117. With your knowledge of the seasons, can you say whether agriculture could be profitably pursued? Yes; it could. Our average rainfall during the last records that I have kept for twelve years has been about 17·2. I suppose that even where the people depend entirely upon agriculture they have droughts and with them bad seasons, but I am sure that in this district good crops could have been grown in two out of three seasons during the last twelve years.

118. Does the rainfall come at the right time? Yes, in two out of three seasons.

119. That has been your experience? Yes.

120. You have at times suffered very severely from droughts? Yes; but in the red soil we get the crop in early, and with a little rain during the winter and more rain in the spring the crop is brought on quite sufficiently for hay at least.

121. Can you say from what holdings between Byrock and Brewarrina traffic would be obtained by the proposed railway? Tarcoon, Charlton, Gongolgon, Gralga, and Wyuna Downs. Beemery would be almost as near to Bourke as to the proposed line, but I have no doubt that Beemery would come into this line.

122. How far is Beemery from Bourke? About 40 miles.

123. How far would Beemery be from the nearest point on the proposed line? About 20 miles.

124. It would be only a question as to the cost of carriage? Exactly.

125. If the cost of road carriage plus the local railway rate between Byrock and Brewarrina were less than the cost of road carriage from Bourke, I suppose that Beemery traffic would come into the Brewarrina line? Certainly.

126. Have you mentioned all the traffic that you think would come into the proposed line? No; the traffic of the whole of the country within 30 miles of the line between Brewarrina and Byrock would come in and even some nearer Bourke, because the roads are better for drays, &c., to cart on—on the red soil than on the black, which is very bad in wet weather.

127. So far as regards the country you know, do you think that any of the traffic within the area shown on that map by "red" lines would go to Bourke and not to the Byrock-Brewarrina railway? The whole of the traffic of the eastern portion of the country within the "red" lines would come into the Byrock-Brewarrina railway. I do not know the western.

128. In your opinion, none of it would go to Bourke? I am quite certain of that, because it would be against their interest to send it to Bourke.

129. What would be the lowest rate of carriage to Bourke for any portion of the traffic within the "red" lines? Except in the immediate neighbourhood of the nearest "red" line, it would not be less than £1 a ton; in fact, carriers cannot handle a load of wool or produce and carry it any distance for less than that. The rate is as high as £3 or £4 for portions of the district.

130. I suppose you get all your goods from Bourke? Yes; it is the cheapest market.

131. Do you send all your station produce to Bourke? Yes, except in wet weather, when I take it to Byrock, because there is a better road to go on.

132. You said something about a probable increase in the land revenue in the event of the proposed railway being constructed;—in what way would that increased revenue be obtained? On the same ground that the Land Board increase our rents—that is, the lighter the rate of carriage that we have to pay for our station supplies and produce, they put a proportionately higher rent on the runs.

133. You would not anticipate, I suppose, an immediate increase, but when the leases fall in? At the next appraisalment.

134. You are speaking of the pastoral holdings, and not the homestead leases? The pastoral holdings and the homestead leases, I think, are appraised about the same time. We shall have another appraisalment in five or six years.

135. Do you think it is probable that there will be any appreciable increase in the rent of the land within the "red" lines on that map? We naturally expect so, because of the conditions when we applied for and took up the leases, viz., that there would be a graduating scale and an increase of 25 per cent. every period of five years.

136. But if the Railway Commissioners were to charge a rate for the carriage of goods sufficient to cover working expenses and interest on the cost of construction, would it be reasonable also to increase the rents of the lessees? From my point of view it might not be.

137. Do you think it would be? I naturally expect the Land Board would do so.

138. Because of the additional railway facilities? Yes; they have always taken into consideration the rate of carriage in fixing the rent of the run, and naturally we suppose they will continue to do so.

139. Therefore you contend that in addition to the earnings of the railway there will be a large increase in the revenue from the land? Yes, I do.

140. Do you really think there will be? I do, indeed, because of closer settlement, and all the Bogan country being taken up, too. There is a lot of country on the East Culgoa that has been lying idle, and which they are throwing open as improvement leases, scrub leases, and settlement leases.

141. Do you know if the rents have been increased in other portions of the country where a railway has been made? I cannot say, because I have not had any experience out of my own district.

142. The Railway Commissioners look for revenue to the earnings of the railway, and do not take into consideration the increased rent obtained by the Government for Crown lands? I think they should do so. It is a national work, and anything that adds to the Government revenue should be taken into consideration.

143. At the present time is there any land between Byrock and Brewarrina which is not occupied? I think not.

144. Is it occupied by homestead lessees chiefly? Homestead lessees and pastoralists. The whole of the resumed area has been taken up by homestead lessees.

145. How many years have the leases to run from the present time? Most of them twenty-one years from now—twenty-eight years from 1889.

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146. Do you know whether the rents have recently undergone revision? Yes; at the last appraisalment there was a reduction made in some and an increase was made in a few instances.
147. There have been increases? There have been a few increases. At the first appraisalment the Land Board assessed the leases at more than we anticipated, and the bad seasons and consequent depreciation of stock coming on the top of the increases in rent, we naturally asked for a decrease in the rents, which the Land Board have taken into consideration, and our rents have been lowered to nearly the original rate.
148. So there has been a very substantial reduction? Yes, in many cases. In some cases there has been an increase, according to the value of the country; but the reduction was made owing to the high rate that we paid at first, and the bad seasons, and the lowered value of our produce. When we took up these leases wool was worth from 8d. to 9d. a lb., but afterwards it went down to about 5d., which made a material difference in our income, and what with droughts and scarcity of money we found it very difficult to make ends meet; in fact, I think that most of the pastoralists at that time were going down a little, but during the last few years I think they have gone on very well.
149. Generally, are you prepared to say whether there has been retrogression or progression in the district during the last eight or nine years? During the last four years there has been a great advance—everybody has been doing very well—but between 1891 and 1894 I think there were heavy losses. Since 1894 I think that in most places they have done very well.
150. An increase of stock? Until last season I think that the increase of stock in our district has been very great.
151. And an increase of population? Decidedly.
152. And a large area put under and at the present time being prepared for cultivation—is that correct? Yes; that is quite correct. I am speaking only of my own immediate neighbourhood when I say that from 1,000 to 2,000 acres are being put under cultivation, but nearly everybody that I speak to is talking of putting land under cultivation.
153. In what direction, besides the locality in which you live, has cultivation taken place? On the west side of Bourke, and up the Bogan to the west of where I am.
154. Principally wheat? They grow wheat for hay. Wheat stands frost better than anything else does, and, therefore, we put in wheat for hay; and during the last two years they have also grown their own seed-wheat.
155. Is the produce to which you have referred grown for use on the stations or for market? Both.
156. More than necessary for station use? Yes. In a good season like the present we could sell the whole of it, because we do not require to feed our working horses with it, but in bad seasons we retain it to keep our stock alive and to feed the horses.
157. What does it cost you per acre to put your land under wheat? The first cost—that for clearing—is the heaviest cost.
158. Can you mention one sum covering the whole cost from sowing to harvesting? About £1 an acre, I think, will cover the whole of it.
159. Would £1 an acre cover the cost of conveying to the railway as well? I should say that 22s. 6d. would do it. We pay 10s. an acre for ploughing and sowing on land that has been cleared, and I do not think that the cost of reaping and harvesting and carriage would come to 12s. 6d.
160. Of course, if a very large area were put under cultivation the cost would be considerably reduced? Yes. Some land has cost me 10s. an acre for clearing. I think that on a large scale we could clear that land out there for agriculture for about 5s. an acre—that is, by ringbarking and pulling the lighter scrub out by bullocks, and burning the heavy timber down.
161. Have you considered whether you could successfully compete against other wheat-producing districts, considering the less favourable conditions under which you cultivate, you being handicapped with a long distance of railway carriage? I could not say at present, I have not gone into that matter, but I know that the wheat that I have had to purchase during the last two years for seed-wheat has cost me 6s. a bushel landed in Bourke.
162. To where would you look for a market for agricultural produce? Locally. If we grew sufficient wheat I think that we would make our own flour in the district, but it would take some years' cultivation to supply the wants of the population round here.
163. You think that you would be able to supply the local wants at lower rates than wheat can be brought from places between here and Sydney? Yes; at the present rate they cannot land wheat in Bourke at less than 5s. or 5s. 6d. a bushel.
164. Do you get your wheat from Sydney or from Narromine and Dubbo? From Narromine and Dubbo. Rich & Co. charged me 6s. a bushel, and I suppose that they would pay perhaps 5s. a bushel for it, and I think that it could be grown and sold by the producer here for 3s. or 3s. 6d.
165. I suppose that maize cannot be grown here successfully? It grows very well on irrigated ground; and on the other side of Bourke, where they have the bore water and red soil, they grow it, but whether it pays I cannot say at present. All these industries require some years to get them on to a proper commercial basis to enable us to live upon them.
166. I suppose you are of opinion that cultivation will pay here? Yes; eventually. I think there will be a greater population living on agriculture in the near future than there is now on pastoral pursuits.
167. And you think you would be able to successfully compete with outside markets? I think so. The soil is good, our rents are lighter, and we can use fresh soil for some years to come.
168. You think that your crops will bear favourable comparison with crops grown in more favoured districts? What we are growing—wheat—at the present time compares favourably with the wheat that comes from other places.
169. You did not say what the average return per acre was? I could not tell you that. They have threshed only sufficient for seed-wheat for themselves and a little they have sold to their neighbours. Mr. Fennell bought, I think, 50 bushels from Mr. Barton, who threshed more than sufficient for his own seed.
170. So far, I suppose that Mr. Barton may be regarded as the largest producer of wheat in the district? Yes; I think he is. Last year he had over 400 acres under cultivation, and this year he will have 800 acres under cultivation. He has grown some wheat both this side and the other side of Bourke. He has bought agricultural machinery for one farm at the back of me which has cost him over £300. He must have very good prospects to go in for that.

171. You think that Mr. Barton's success will encourage others to follow his example? Undoubtedly. T. Huggins.
172. Mr. O'Connor.] How many acres on your station will be fit for agricultural purposes? 30,000 acres. About half our country is saltbush country and black soil, and the other half is nice alluvial mulga country, very suitable for agriculture. 15 Mar., 1898.
173. And you would not be disposed to go in for cattle and sheep if you could do better by devoting your land to agricultural purposes? No; I should like to see some of it put into agricultural farms. That would not prevent us from having cattle and sheep; on the contrary, it would enable us to do that better, as we should not fear the droughts, for we could keep sufficient forage in hand to tide us over a bad season. I think it is very necessary that agriculture should be encouraged in every possible way. In my opinion the success of the pastoral industry depends a great deal on cultivation. I certainly hope that the proposed railway from Byrock to Brewarrina will be constructed. I do not wish to see the country run into any expense that is not warranted, but, considering the disabilities under which we labour here in times of drought, I think that the Government should do all they can to encourage us. Certainly our lines have not been cast in pleasant places for a good many years.

Walter George Jameson, stock and station agent, Brewarrina, sworn, and examined:—

174. Mr. Fegan.] How long have you been in this district? Since the beginning of 1888.
175. Have you had any other position besides the one you are occupying at the present time? In the year 1894 I was on the Weilmoringle Station, on the Culgoa, as storekeeper, book-keeper, and overseer. W. G. Jameson. 15 Mar., 1898.
176. Have you prepared any statement to lay before the Committee? Yes; I have prepared a short statement. Some of my reasons for claiming that Brewarrina has a right to railway communication are— (1) That it is a commercial necessity for the proper development of a very rich district; and (2) that the proposed railway would pay from the start. In support of this latter assertion I have prepared a return of the wool traffic which has passed through Brewarrina by team, and by steamer, and also a list of the stations which would be influenced by the railway, and the wool and produce of which would come to the railway at Brewarrina if it were constructed. The abstract of the return of goods and wool is as follows:—
- | | | |
|--|-------|--------|
| Actual amount of wool sent to Brewarrina by steamer, season 1894, from stations within sphere of railway, as per return No. 1, 14,219 bales..... | Tons. | 2,300 |
| Other wool produced in district within sphere of railway, and every bale of which we can fairly claim, 12,356 bales (That is allowing 15 bales for every 1,000 sheep, which is a very low estimate. In most cases with the improvements that have been made in the breeding of sheep the average is from about 18 to 20 bales per 1,000, but I am calculating it at 15 bales, so as to put it very low.) | | 2,144 |
| Skins, hides, tallow, and general produce..... | | 500 |
| Return loading sent to stations..... | | 3,100 |
| „ distributed among townships, hotels, country stores, hawkers, &c..... | | 2,000 |
| Total..... | | 10,044 |

The amount of wool sent to Brewarrina, 1894, does not include 6,763 bales, weighing 1,324 tons, sent from stations in the Walgett district, and which came through by steamer from the Walgett district (see Return No. 2), nor 4,944 bales, weighing 941 tons, which would come from stations just over the Queensland border, and which would be almost certain to be trucked here, this being the natural outlet and the nearest and most convenient point.

A great many of those station-holders also have land in New South Wales, and they bring the sheep across the border, and shear them on this side, so as not to have to pay the export duty on wool which is charged by the Queensland Government. The tax is imposed by the Queensland Government, in order to prevent the wool from being sent through New South Wales instead of *via* Brisbane. The wool from the stations above Boorooma, which I have classed as being in the Walgett district, 1,324 tons, and the wool from the Queensland stations, 941 tons, would make an extra 2,265 tons, which would probably come to the railway at Brewarrina. The following is a return of wool that actually passed through Brewarrina in 1894, which I can vouch for as being absolutely correct in every detail, and I challenge anyone to prove it to be incorrect:—

Return No. 1.

RETURN of Wool sent to Brewarrina, Season 1894, for shipment.

Name	Place.	No. of Bales.	Weight.	Name.	Place.	No. of Bales.	Weight.
			tons.				tons.
1. Aborigines	Mission Station...	35	7	27. Sawers and Wilson ...	Bundabulla	1,140	210
2. Spencer	Cuttabunda	294	45	28. J. Staggs	Pebblebank	68	10
3. P. Barton	Thebarton.....	91	10	29. W. W. Shaw.....	Maylands	39	6
4. T. Bossley	Willoh	209	37	30. G. H. Thompson	Wombla	22	4
5. Wm. Brooks	Gidgea	60	7	31. Exrs., Bishop Tyrell...	Brenda	1,347	218
6. Baird & Co.....	Quantabone ...	1,296	172	32. F. E. Vandeleur	Denman	166	30
7. Saunders	Wirra Warra	159	27	33. Wm. Williams	Maybrook	76	8
8. J. G. Colless	Abydos	27	5	34. Wm. Vanstone	Chip's Folly.....	132	20
9. J. R. Carter.....	Boganderra	171	21	35. Sherwin & Co.	Nullawa	357	57
10. James Mannin	Cato Creek	144	19	36. Yeomans Bros.....	Gilgoin	773	142
11. Wm. Crowley	Collywarry	58	11	37. W. and T. C. Dickson	Yarrowin	1,536	347
12. H. Clemson	Glenalba	22	3	38. Doyle Bros.	Muckerawa	568	87
13. T. M. Cross.....	Mildool	3	...	39. M. Cullen	Glendon	53	7
14. Dalgety & Co.....	Gnomery	620	107	40. Manton Bros.	Boorooma.....	31	5
15. Dalgety & Co.....	Talawanta.....	1,126	186	41. G. Jackson	Muttaborra	35	6
16. M. Guthrie	Mahi	85	13	42. M. Ryan	Cato	50	10
17. C. Capp	Boyd Park	68	11	43. G. A. and P. Main ...	Boorooma.....	1,897	224
18. Gideon and Sharpley...	Williwillingbah..	149	23	44. J. Simpson	Moorlands.....	140	22
19. A. B. Gunning	Avonridge	1	...	45. Loughnan Bros.	Homebush	111	14
20. G. Halden	Wingalah	54	6	46. Beattie, McNully, and	.....	91	15
21. Mackay Brothers	Brewan	137	28	Doyle			
22. White & Co.	Yureurie	153	24	47. D. Nyhan	Mayfields	106	18
23. J. Mackenzie	E. Bundabulla ...	54	9	48. W. Colless.....	Woollahra	36	7
24. W. R. Moore	Magila	210	25	49. Sundry small lots.....	.....	90	14
25. T. Richards.....	Lipsley	84	16				
26. E. J. Saunders	Birie River	45	7				
						14,219	2,300

During the wool season 1894, the river was not running for a considerable period, and about 5,000 to 6,000 bales of wool passed through Brewarrina on teams going to Byrock or to Bourke. 177.

W. G.
Jameson.
15 Mar., 1893.

177. Where did the bulk of the wool which you have enumerated go to? It went by steamer to Bourke.
178. We have evidence before us, given by Mr. Harper, who is now the Chief Traffic Manager of the railways, and who says that altogether the railway received 1,250 bales at Byrock, and 26,449 bales at Bourke;—what year is your return for? For the shearing season of 1894.

179. The return that we have received for 1893-4 differs from your return in some respects? Of course I cannot say what the receipts of the railway were at Bourke; but I say absolutely that the wool that I have quoted went from Brewarrina.

180. If you were to have a railway terminus at Brewarrina, where would the wool go to then? Most of it would go from that terminus.

181. How many of those 14,000 bales approximately would have gone by rail from Brewarrina if there had been a railway here? Within 1,000 bales of the total.

182. Would you say that 10,000 bales of those 14,000 bales would have gone to the Brewarrina railway? Yes, quite. That wool was actually sent through Brewarrina in 1894, and then there was wool from the Walgett District sent by steamer past Brewarrina to Bourke, as follows:—

Return No. 2.

WOOL from Walgett District sent past Brewarrina in steamers to Bourke, Season 1894.

Name.	Place.	No. of Bales.	Weight.	Name.	Place.	No. of Bales.	Weight.
			tons.				tons.
S. Hazlett	Craigmore.....	23	4	Campbell	Dungaleer.....	285	37
Richmond and Scott	Ulah	2,195	430	Champion	Morella.....	26	5
J. H. Fleming	Ulah	462	88	J. Pedley	Moroodah.....	543	97
A. D. Wiseman	Mourabie	346	70	J. Mackenzie	Comborah.....	21	3
Bowman	Wambiana	67	13	Gilchrist, Watt, & Co.	Llanillo.....	1,184	276
Bell Bros.	Flemington	295	59	J. Doyle	Ulumbie	267	53
Kenna	Chancevale	43	9	R. J. Bridges	Narran Point	48	8
Sanderson	Combariding	40	8	G. A. Murray	Milrea	378	65
R. Dugan	Lolsep	105	18	J. Ferris	Gerongera.....	42	7
Collins.....	Barwonvale	86	17	Matthews and McCauley..	.....	48	9
J. S. Gordon	Guiseley	196	38				
Barden	Wee Warrah	53	10			6,763	1,324

I may state that the river stations up as far as Ulah on the Barwon have a standing contract with the carrying companies for the conveyance of their wool either by river or by road *via* Brewarrina.

183. That is to Bourke? Yes, *via* Brewarrina. Those two returns give the whole of the wool that actually passed through Brewarrina on the steamers.

184. And the total is about 21,000 bales? Yes. I have a return here of places which would come within the sphere of the proposed railway over and above those places which I have already mentioned. It is as follows:—

Return No. 3.

WOOL which would be sent to Brewarrina to be trucked if proposed railway constructed.

Name.	Place.	No. of Bales produced.	Name.	Place.	No. of Bales produced.
Burke and Sons	Merrington	186	R. Twist	Culgoa	15
J. L. Brown	Brigalow	348	Scott Investment Co.	Corrella.....	795
E. C. Carter	Goonoo	33	Cornish and White.....	Tara	187
C. J. Curtin	Papperton.....	120	J. Dunn	Boorooma	45
Mrs. Collers	Tarrion	9	W. O'Mullame	Forest Vale	90
A. Comerford	Waratah	48	Lindsay Bros.	Compton	105
Caton Bros.	Esperance	144	J. Foley	Chutae	15
Edw. Carter	Mungally	48	J. J. Foley	Wiltertree.....	60
W. W. Crothers	Old Gnomery	105	J. W. Plaskett.....	Gundanarra	60
F. T. Canning	Sandelwood	36	J. Staggs	Lake Lease	30
F. R. Divall	Burton Grange.....	27	F. Randall	Tarcoon.....	360
Wm. Flood	Yandilla	565	.....	Pink Hills.....	60
Fennell Bros.	Wolkara	330	— Barton.....	Sainsbury Park	60
Hosking & Co.	Willamurra	141	T. Huggins	Oakleigh	195
W. A. Johnstone	Innisfall	43	Paltridge & Co.	Culgoa	90
Jamieson and Keats Bros.	Weilmoringle	1,273	W. H. Bayes	Cootianda	199
E. C. Johnston	Adavale	15	Dalgety & Co.	Milroy	1,400
A. J. Kelly	Swan Reach	5	R. A. Low	Cedar Glen	66
E. G. Lynch	Templestowe.....	90	P. Barton	Thebarton	158
Lindsay Bros.	Charlton	339	J. G. Colless.....	Abydos	73
M. T. Little	Marion	15	Jas. Mannis	Cato	121
H. Popplewell	Cotran	87	Wm. Crowley	Collywarry	152
J. H. Rouse	Goodooga	1	C. Capp.....	Boyd Park.....	72
Edw. Ryan	Rosehill	55	N. G. White & Co.	Yurecurrie	70
Jas. Ryan	Wytecheproof	60	J. Mackenzie	East Bundabulla... ..	131
J. Staggs.....	Boree.....	45	Mrs. Mannix	Cato	46
E. Smyth	Cawall	36	E. J. Saunders	Birie	25
A. Sullivan	Cowga	300	Hy. Staggs	Wrie Point	200
R. F. Smith	Warracknatede	120	Wm. Shearer	Yeplly	65
E. Staggs	Culgoa	52	Wm. Williams.....	Maybrook.....	24
Jas. Simpson	Paisley	33	Wright and Bacon	Dumble.....	1,400
A. T. Saunders	Birie View	45	J. V. Hellmann	Yamba	105
W. N. Willis	Tarrion and Culgoa	352	Wm. McDougall (now W. R. Moore).	Bunna Bunna	67
Geo. Woods	Yamtacoona	69	J. Howlett	Narran	104
Woods & Co.	Ballaree	100	Loughlan Bros.	Homebush	47
E. Carter	Fingerpost	70	Wm. Dickinson	Collerina	58
J. Dagg	Dagworth	21	Kerrigan and Eville (now R. F. Smith).	Caringle	97
S. H. Eville	Toorak	20			
T. J. Elliott	Booka Booka	105			
P. Hope	Flat Top	18			
					12,356

185. In round numbers, making a total of 33,000 bales? Yes. Those stations that I have already mentioned as being on the Queensland border are as follows:—

Return No. 4.

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QUEENSLAND Border Wool which should be sent to Brewarrina for Trucking, as most convenient and nearest point.

Name.	Place.	No. of bales produced.	Name.	Place.	No. of bales produced.
Scottish Investment Co.	Fernlee	853	C. McKenzie & Co.	Kinglebilla	300
Machonachie Bros.	Coomburrah	368	F. W. Bacon	Ballandool	300
A. M. L. & A. Co.	Woolerina	968			
M. Tully	Mulga Downs	450			4,944
Squatt. Inv. Co.	Bindaleer	1,705			

Several of the above clips are now brought into New South Wales to be shown.

186. But they are nearer railway influence and would not come to either Bourke or Brewarrina, are they not? No, none.

187. None whatever? No. They are all almost in a direct line north from Brewarrina. In the matter of stock-trucking by the proposed railway I believe that the estimate made by the Department was about 1,000 trucks, which is manifestly absurd. The number of sheep in this district as per the evidence of Mr. Yeo, Stock Branch, Department of Mines, whose figures I adopt, is 1,754,707. The usual proportion of fat sheep on a station is one-sixth of the whole.

188. Is your idea to show us that with a railway terminus at Brewarrina a certain proportion of those sheep would be sent from here by rail? Yes; one-sixth or one-seventh is the usual proportion of fat sheep sent off a station.

189. *Chairman.*] Between 13 and 16 per cent.? I have put it at 12 per cent. to be on the safe side, and that would amount to 210,564 fat sheep. Allowing 90 to a truck—and as a rule not more than from 80 to 85 would go in a truck, if they were at all fat—that would be 2,339 trucks. I regard that estimate as being within the domain of absolute certainty, and to show that it is so, I may mention that the actual number of fat sheep sent from this district in the twelve months 1896-7, and trucked at Byrock, Bourke, Nyngan, and Narrabri, when the greater part of the district was suffering from a severe drought, was 161,200, or 1,791 trucks. Those were actually sent from stations within the sphere of the proposed railway from Byrock to Brewarrina. Besides that, during the same time 25,000 sheep from outside the district passed this way for the purpose of being trucked, they coming through Brewarrina on account of the good roads leading to this town. They would make 287 more trucks. The number of cattle in this district, according to Mr. Yeo's figures, is 9,265. There is also cattle in the adjoining district which always make this way to market, such as Mackay Brothers, and cattle from stations just over the border, amounting to about 40,000 head altogether. That would make a total of a little over 49,000, and I estimate that 20 per cent. of them go to market and would come to Brewarrina to be trucked; that would make 9,853 head, which at nine head to the truck would amount to 1,094 trucks, making a total of 3,433 trucks of fat stock—cattle and sheep. As most of the cattle which are on the stations about here are kept for fattening purposes, I estimate that 20 per cent. is a very moderate estimate of the number sent to market. Mr. Harper's estimate of the sheep and his estimate of the cattle to be trucked would be largely exceeded. I assert that 3,000 trucks would be an absolute certainty.

190. At how much per truck do you put it down? At the figures given by the Department, viz., 15s. 6d. per truck. I may also mention that a great many of the landowners about here, such as the Bundabulla lessees, at one time produced a very large number of fat sheep and sent them overland to Sydney, but the state of the roads now is such that they can no longer do that, but if the proposed railway from Byrock to Brewarrina were constructed, a great many of those men would go in for less breeding and for more fattening of stock, because the latter would give them a much better return. The stock that passed through Brewarrina during the twelve months from 1st January, 1896, to 31st December, 1896, amounted to 752,777 sheep, and 80,597 cattle. These sheep mostly come in from Queensland and along roads which all converge at Brewarrina. People here would go in for buying sheep that came in that way and would fatten them. What the people living in this district did not breed they would buy from outside sources for fattening purposes.

191. I suppose that in any case the store stock would not go by rail? No, except in case of drought.

192. I mean under the conditions you speak of now? No; they do not go by rail, but are sold just where they go. I maintain from the figures I have given that the proposed railway from Byrock to Brewarrina would pay from the start—that basing the receipts on the charges mentioned by the Department they would more than cover the interest on the capital outlay and also the working expenses.

193. *Mr. Fegan.*] Mr. Harper calculates for only 1,000 trucks of live stock at 15s. 6d.? I estimate 3,000 trucks as an absolute certainty at the same charge. I do not know where Mr. Harper got his figures from, but I cannot accept them as being at all correct. Another reason in favour of the construction of the proposed railway is that the revenue derived from this line for traffic between Brewarrina and Byrock would be absolutely new revenue.

194. Why? Because any goods that now go *via* Bourke are conveyed free between Bourke and Byrock, and the same the other way. I mean that the charge for goods is the same to Bourke as it is to Byrock. In support of that I can quote the trucking rates issued by the Railway Department. People at present pay carriage by river never less than £1. and up to 30s. a ton, whilst the charge for conveyance by road is never less than £1, and generally nearer £2 a ton, and I know that they would willingly pay 10s. a ton, or even 15s. for any goods sent by the railway in preference to having them brought by road or by steamer. I contend that through there not being a railway terminus at Brewarrina a great deal of stock traffic which otherwise would be sent from here goes now to Narrabri on the northern line, or to Nyngan and other stations on the western line, so as to avoid the bad track between here and Byrock, which knocks a great deal of value off fat stock. Although the railways actually do get that stock traffic at present, if it were sent from Brewarrina it would create new mileage, as the stock would have to travel farther by rail. Another argument in favour of the proposed railway is that Brewarrina is the converging point of all the principal

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principal stock routes from Queensland, and of a good many from different parts of New South Wales. All those stock routes are well watered and pass through good country which is always well grassed, and therefore stock can come this way when otherwise they could not get near to Bourke. Nearly every year we see sheep go through this way to get to Bourke. They come from Queensland and through Brewarrina go down the river to Bourke, although the shortest way for them would be a straight line to Bourke. They cannot get to Bourke by the direct stock route. Brewarrina requires a railway to properly utilize that traffic. I also maintain that no other means of disposing of the products of the district would meet its requirements. I believe that evidence has been given to the effect that stock could be sent by steamer; but that is absurd on the face of it.

195. In whose evidence is that? I think that it is in Mr. Shainwald's evidence on the proposed construction of locks and weirs on the river Darling. I do not think that it is necessary for me to go further into that matter, for such evidence is absurd on the face of it.

196. If you wish to say anything further in regard to it, please do so? Well, in the first place you could never reckon on the stock reaching their destination by steamer, owing to the rise and the fall of the river, and that method of transit would be so slow that the stock would all be dead before they got there, if they ever did reach their destination, and they would require quite a large fleet of steamers. I may mention that the rent obtained by the Government from Crown lands in this district totals in round numbers over £40,000, or more than 2d. per acre, showing that the class of land in this district is the best in the Western Division. I think that the facilities that would be afforded by the proposed railway, and the consequent development of the resources of the district would greatly enhance the value of the land, a lot of country being used in a better way than has hitherto been the case. To show that my estimate of the probable truckings of fat sheep is well within the mark, I will name a few of the stations which I know from personal knowledge have within the twelve months that I spoke of, viz 1896-7, sent fat sheep:—

Baird & Co., Quantambone	26,000 sheep.
Lindsay Bros., Charlton	15,000 "
Yeomans Bros., Gilgoin	15,000 "
W. & T. C. Dickson, Yarrowin	15,000 "
E. Mackenzie & Co., Kinglebilla	10,000 "
G. A. & P. Main, Boorooma	10,000 "
J. G. Colless, Abydos	3,000 "
Fennell Bros., Wolkara	5,000 "
William Crowley, Collywarry	5,000 "
F. Randall, Tarcoon	5,000 "

These places represent only a very small proportion of the fattening country in the district, which is acknowledged to be of the best character for fattening. As regards the other stations, the country is equally good, and produces a proportionate number of fat sheep. At the present time owners, owing to the want of a convenient railway, have to sell their surplus stock as stores, and I contend that is quite reasonable to suppose that if there were a railway to Brewarrina, the district generally would turn off at least one-seventh or one-eighth of the total number of sheep as fats. The estimates that I have of stock-truckings, amounting to about 3,500 trucks, is quite apart from the Queensland sheep from stations just over the border, and for which Brewarrina would be the natural depôt. I have taken only those stations actually within the red lines. There are stations outside those lines which would send sheep to Brewarrina, this being the most convenient and best centre. I contend that the Byrock stock-trucking returns are not a reliable guide as to the probable truckings from Brewarrina, inasmuch as most of the sheep turn down the Bogan and the Marra towards Nyngan, the owners preferring the road that way, rather than to take their sheep along the Byrock track.

197. I suppose that having a larger market has something to do with it? No, it is owing to the road being so much superior. As to the only alternative that has been suggested instead of a railway, viz., the locking of the river, I would point out that the disadvantages of river transit are very evident, entailing extra handling and special insurance, which is practically so much extra freight, slowness in transit, &c. To compete with a railway carrying goods at 10s. per ton, the steamers would have to charge a freight not higher than 6s., because the river insurance and the cost of extra handling would amount to 5s. at least, making a total of 11s.,—which the steamers would have to charge as against 10s. railway freight. The traffic between Brewarrina and Byrock, being altogether new traffic, would mean increased railway revenue, and would also decrease the wear and tear of the line between Bourke and Byrock, over which at present traffic goes free, and therefore gives no return. It has been asserted that goods have been carried by steamer from Brewarrina to Byrock at as low a charge as 12s. 6d. a ton. I believe that this was done on one occasion; but someone has tried to make out that that is the usual charge. I believe, however, that evidence will be given that the charge has never on any ordinary occasion been less than £1, and generally more than that, and that the steamer owners have actually refused even 25s. a ton. I challenge those who say that the charge is 12s. 6d., to produce particulars of the case in which the charge of 12s. 6d. was made.

198. You have no doubt that it has occurred very rarely indeed? I believe it only occurred once, and that it was under special circumstances, and for a special purpose. It has also been said that wool does not go past Bourke, on the steamers,—that it all goes on to the railway at Bourke; but on Wednesday, 17th November, last year, the following notice appeared in the Bourke paper:—

On Thursday, the steamer "Pilot" will be despatched to Goolwa, S.A., with 500 bales wool from Youngerina, Thurloo Downs, Pirilie, and Taleyeale.

I have here the *Brewarrina Argus*, of Saturday, 31st August, 1895, which gives an account of a visit made to Brewarrina, by Mr. Harper, who was then inquiring about the proposed railway.

199. Have you the figures that were placed before Mr. Harper? Yes, they are contained in the report that was published in the *Brewarrina Argus* on the 31st August 1895, of the deputation from the Progress Association which waited on Mr. Harper in Brewarrina.

200. That was a deputation introduced by Mr. Kelly, and the figures are contained in the statement made by Mr. Kelly and by Mr. Cathie on that occasion? Yes.

Mr. Kelly then read over figures showing the incoming and outgoing annual tonnage, which showed that on an average there were despatched from Brewarrina, 30,000 bales of wool, representing 5,000 tons, and that the inward tonnage amounted to 6,500 tons annually. The number of stock in the Brewarrina stock district was:—1,371,470 sheep, 16,164 cattle, and 4,765 horses. The postal returns, including the sale of stamps, post office orders, and postal notes, money orders, and telegraph business, amounted to £9,998, or in round numbers about £10,000 a year. Mr.

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Mr. H. L. Cathie then laid before Mr. Harper a return showing the number of acres of leased Crown lands in the Brewarrina Land District, as well as the annual revenue derived from same. The return showed there were thirty-seven pastoral leases, with a total area of 2,588,401 acres, from which the Crown received an annual income of £28,318 15s. 7d. There were seventeen occupation licenses, comprising a total area of 418,520 acres, from which the Crown annually received, as license fee, the sum of £2,556 1s. 7d.; 153 homestead leases, comprising an area of 1,405,669 acres, the yearly aggregate rent amounting to £15,177 8s. 11d. Of conditional leases there were ninety, comprising an area of 145,402 acres, yielding a total annual rental of £1,784 15s. 10d. Mr. Cathie said that it would thus be seen that the annual land revenue for the Brewarrina District, in round numbers, amounted to £48,000; * * * he would like to point out to Mr. Harper that the average rental per acre on all the leased lands was 2½d., a very large amount when compared with other averages for land in the Western Division. * * *

Mr. Harper thanked the deputation for having met him, and also for having given him such desirable information. He explained that the object of his visit was to supplement the information that had already been gathered by the Railway Commissioners. Mr. Harper expressed himself as more than satisfied with the facts and figures, which he had made a note of, and said that, without wishing to commit himself in any way, he would give the projected work all the credit that lay in his power. The average assessment of 2½d. per acre was indeed most satisfactory.

201. Were you present at that deputation? I was.

202. From memory, do you know if that is a correct report of what Mr. Harper said to the deputation? Yes, it is.

203. So he gave you the impression that he was favourable to the construction of the proposed line? He gave me the impression that he was very favourable to it.

204. In giving an estimate of the traffic between Byrock and Brewarrina, including up-stream to Walgett, Mr. Harper puts down goods, 2,000 tons, at 10s.; wool, 3,100, at 10s.; wool, 330 tons, at 7s. 6d. (wool on route of line between Byrock and Brewarrina). Then comes a great difference in regard to the live stock traffic. You estimate for 3,000 trucks of live stock at 15s. 6d., but Mr. Harper estimates for 1,000 trucks of live stock at 15s. 6d.; in other words, you have trebled the number of trucks that Mr. Harper has in his estimate;—do you not think you have been rather extravagant in your estimate? No; I think that I have been very moderate.

205. You think that you have not only been not extravagant, but that you are rather under the mark of what will actually take place? Yes.

206. Did you, at that deputation, make any representation to Mr. Harper as to the quantity of goods that come in annually at Brewarrina? No, I think not, except that something near the amount of goods coming in may have been mentioned.

207. Do you think that 2,000 tons is a fair estimate? I think that my own estimate is nearer the mark.

208. Your estimate is that, altogether, you would have 10,044 tons? Yes.

209. You can see at once that the great difference between your estimate and the figures given by Mr. Harper means a line paying all expenses, as compared with a line losing over £4,000 a year? Yes; there is one thing I have not taken into account at all, but have left for other witnesses who are better able to deal with it, I mean the passenger traffic, mails, and parcels, and things of that sort.

210. Mr. Harper has put down 1,500 passengers, at 9s.? I cannot speak on that point at all.

211. Have you any information as to the rainfall within the area marked by red lines on the map? I think it averages about 18 inches. I kept a record of the rainfall at Weilmoringle from 1888 to 1894.

212. What was the lowest fall you had there? About 7 inches, and the highest was about 33.

213. *Chairman.*] When you compiled your statement which you have laid before the Committee to-day, did you have before you the return appearing upon page 52 of the evidence given before the General Committee, showing an alphabetical list of stock-owners, and the number of sheep, &c., in the Brewarrina District for the year 1896? No; I had not seen that, but I had another list.

214. Have you had an opportunity of making a comparison between that list and the one that you have now presented to us? No.

215. Did you have before you an official list of any description? No; it was a list published in a directory that I had, which may have been compiled from an official list.

216. Do you, of your own knowledge, happen to know the number of sheep on the stations, or have you been supplied with information by the stock-owners? I have a general knowledge of the number within a few thousand.

217. Take one or two stations, by way of example? Of course, the stations vary a good deal. In a good year they may have double the number of sheep that they had in a bad year.

218. Is your statement compiled from information which you derived at the end of 1896 or a previous year? A previous year.

219. What year? 1895, I think; but I am not sure.

220. Would there be any material difference between the returns of the two years? Not a great deal.

221. We will take Dumble station;—how did you obtain your information as to the number of sheep on Dumble? I think I got that from Mr. Bacon.

222. How many sheep did he tell you were there? Just the number that is on the list.

223. You do not give the number of sheep, but the number of bales? But I based my calculation at fifteen bales to the 1,000 sheep.

224. In your return you say, "Wright and Bacon, Dumble"—I suppose that means the station now in the occupation of Mr. Bacon? Yes.

225. There you estimate 1,400 bales of wool? Yes.

226. That would represent the clip of 120,000 or 130,000 sheep would it not? About that.

227. Do you think that would be about the number at Dumble? I think that that is the number of bales that on one occasion actually went by steamer on their account.

228. Is Dumble in both colonies? There is some other country taken up by the owners outside this sheep district.

229. This return on page 52 indicates that there are only 13,000 sheep on Dumble? That must be a mistake.

230. It says, 84,000 acres in New South Wales, carrying 13,000 sheep? Their Queensland country would be as much again.

231. You are not, I suppose, in a position personally to make any statement in regard to Dumble? No.

232. Except that you know that 1,400 bales of wool came from that station? Yes.

233. How many bales have you estimated to the ton—I am taking now the whole quantity in your statement? In the one case I take the actual bales of wool as by the weigh-bills.

234. Where the weights were not known to you, what have you estimated—5¼ or 6⅔ bales? Six and two-thirds.

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235. So that, in your estimate of the weight, you have accepted Mr. Shainwald's evidence, is that so? I do not actually accept it, but I use it as a basis.
236. You agree with it? No; I think that the estimate is rather too high.
237. Mr. Sawers, in his evidence before the General Committee, I think, estimated that there would be $5\frac{1}{4}$ or $5\frac{1}{2}$ bales to the ton, and Mr. Shainwald estimated $6\frac{3}{4}$ bales—which do you think is accurate? I should be inclined to go between them, because the proportion of scoured wool which Mr. Shainwald says raises the estimate is only in the proportion of about $\frac{1}{3}$ to $\frac{2}{3}$ of the greasy wool.
238. You think that a fair estimate would be about 6 bales to the ton? Yes.
239. In the return now placed before the Committee have you estimated 6 bales to the ton? No; I have taken $6\frac{3}{4}$, so as to be on the safe side.
240. Although you think that 6 bales would be a fair estimate, you have actually estimated $6\frac{3}{4}$ bales, in accordance with the evidence of Mr. Shainwald? Yes.
241. And, notwithstanding the liberal estimate as to the weight, you think that your return would be accurate as to the total tonnage of wool which you think would go by the Brewarrina railway? I think that my estimate is a little under what would actually go.
242. You think that, if anything, yours is an under-estimate? Yes.
243. You now have before you a plan showing an area embraced by red lines, and stated by Mr. Sawers to be the country that would be served by the proposed railway, do you agree with Mr. Sawers that the whole of that country would be served by the proposed railway and that the wool and station produce therein would find its way to Brewarrina? Yes.
244. In your estimate of the stations that would be served by the proposed railway, would you desire to exclude any portion of that area? No; I think that all the country embraced within the red lines can be fairly claimed for the proposed railway.
245. Is it probable that traffic from outside that area would reach the railway? Yes, I think so.
246. From what direction? From Queensland. A little, but not any appreciable quantity from outside that area.
247. Therefore, for our purposes, we may regard the red lines on that map as fairly indicating the whole of the country that would be served by the proposed railway? Yes, with the exception, as I say, of a few places just over the Queensland border.
248. And in your estimate have you included any stations not within that area? I do not think so.
249. Mr. Harper states that the total quantity of wool received at Byrock in 1893-94 was 1,253 bales, and the quantity received at Bourke was 26,449 bales, making a total of 27,702 bales;—how does that agree with your statement? I do not, of course, know what wool came from the Bourke district.
250. Mr. Harper includes in his estimate the whole of the wool arriving at Byrock and Bourke, including the wool from the Walgett district, and he makes the total 27,000 bales; assuming that the Brewarrina railway would receive the whole of the wool, that would be the total quantity;—do you agree with Mr. Harper in that statement? No; that cannot be correct. I have not had an opportunity of seeing the figures of the receipts at Bourke and Byrock.
251. Do you know the district between Goodooga and the Barwon, and east as far as the Narrabri-Moree railway? No; I do not know the latter at all.
252. If you look at that map you will observe that at the present time there are under consideration four proposals for a railway—(1) Warren to Coonamble, (2) Walgett to Pilliga *via* Wee Waa, (3) Woolabra to Collarendabri, (4) Byrock to Brewarrina;—assuming that the line from Narrabri to Pilliga be constructed and extended to Walgett, how would that affect your estimate of traffic for the Byrock-Brewarrina railway? I do not think it would affect it at all, because I have been very careful to keep within the area that would be served by the Brewarrina railway, and have taken into account only those people who would send their produce to Brewarrina.
253. Assuming that the proposed line from Woolabra to Collarendabri were constructed, would that affect your estimate of traffic for the Brewarrina railway? I do not think that the Collarendabri extension would affect my estimate of traffic either.
254. A further suggestion has been made for a line starting from near Narrabri on the Narrabri-Moree line, and going past Wee Waa, and along the north bank of the Namoi, and being continued to a point somewhere between Angledool and the Barwon;—assuming that that extension were carried out, would that line affect your estimate of traffic? No.
255. Would any portion of the traffic that you estimate would come from the area enclosed by those red lines be diverted to the line that I have just indicated to you? I do not think so; at least not any appreciable amount.
256. Your answer is that such a line would not serve any of the country that would be served by the Byrock-Brewarrina railway? No; it would not.
257. Have you any information that would enable you to say if Mr. Harper is correct in his approximate estimate of the live stock that would come from the district, having regard to the railway returns for the past year or two? Not the railway returns from Byrock or Bourke. I think they are misleading. Much of the live stock has gone on lower down the line.
258. At Question 1245 Mr. Harper was asked: "For how many truck loads have you given credit in your estimate?" and he said, "for 1,000, practically double the average number sent at present"? From where.
259. From Byrock and Bourke? But a very large number of the live stock of this district do not go to Byrock at all.
260. To where are they sent? They go to Nyngan and to stations between Byrock and Nyngan, and also to Narrabri.
261. Then in your estimate have you included the stock trucked at Nyngan? I have not taken into account any actual truckings at any particular station. I have only tried to arrive at the number of live stock that would be sent annually from the district, and calculated how many trucks would be required to take them.
262. Do you admit that Mr. Harper may be correct in his estimate as to the number of trucks that would come from the Byrock-Brewarrina district? No; I do not think he is correct.
263. Why do you question his evidence upon that point; he is speaking apparently from railway returns? I cannot see how he could arrive at the correct number that came from this district, unless he inquired

as to where every little lot of sheep came from. Without taking Narrabri, Nyngan, Bourke, and Byrock, and all intermediate stations between Byrock and Nyngan, and ascertaining where the sheep came from that were trucked at those places, I do not see how he could arrive at a correct estimate.

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264. It might be correct as to the actual number trucked at Byrock and Bourke, but at Nyngan a large quantity of live stock may be trucked which, in the event of this line being constructed would go by this railway;—is that what you mean? Yes.

265. Then why should the stock be trucked between Byrock and Brewarrina, or at Brewarrina, instead of going as at present to Nyngan? Because they will arrive at their destination more quickly and be less knocked about.

266. Will you explain that more carefully, for without explanation, Mr. Harper, being correct in his estimate as to the number now trucked, and giving credit for double that number, would, so far as we can see, be justified in adhering to his estimate of traffic so far as live stock is concerned? The road is so bad part of the way between Brewarrina and Byrock that people avoid it as much as possible, especially with fat stock, they prefer to go up the Marra, along one of the best stock routes in the country, or up the Bogan, or else to go to Narrabri.

267. Would there be a much greater distance to travel to Nyngan than to Byrock by road? A good deal.

268. What would be the difference? I suppose 60 or 70 miles.

269. That would be 120 miles as compared with 60? Yes; somewhere about that.

270. At the present time is it the practice to travel 120 miles in order to truck at Nyngan in preference to trucking at Byrock, which is only a distance of 60 miles, simply because of the better route? Yes.

271. Is there any difference in the charge? The charge, of course, is less from Nyngan.

272. Do you not think that that is a factor in the decision to send from Nyngan instead of from Byrock? No; I do not think that that is taken into account with fat stock, because the deterioration on the roads more than makes up for the difference in the freight.

273. Do you know what the difference is? I could not tell you from memory.

274. Is there a substantial difference? I do not think that the difference is a very large one, but I could not say from memory.

275. Is that how you explain the difference between your estimate of 3,000 trucks and Mr. Harper's estimate of 1,000 trucks—that 2,000 trucks additional would probably come in for live stock that now reach Nyngan? Nyngan, and also other stations, including Narrabri. I think that stock at present sent to other stations, and sheep that are not sent away at all now on account of the want of facilities, would make up the difference between Mr. Harper's estimate and mine.

276. How far is Narrabri from the point at which you have estimated the live stock would come into the Byrock Brewarrina railway? About 160 miles.

277. Do you know what the difference in the freight is? I think it is about 6d. a head, but I would not be certain on that point speaking from memory.

278. Do you not think that it is highly probable that the fat stock will still continue to go by Narrabri? No, I do not think so.

279. What inducement would there be to send fat stock by this proposed railway? Less knocking about and quicker transit.

280. It is rather difficult to reconcile the three facts that you have mentioned—that in preference to sending to Byrock a large quantity of fat stock is sent 120 miles to Nyngan, and that fat stock is even sent 160 miles to Narrabri, and yet you say that the whole of that fat stock would come in between Byrock and Brewarrina? Of course when I mention that distance from Nyngan to Brewarrina I should say that many sheep would go from places nearer than that on the road between Nyngan and here—from stations up the Marra for instance.

281. Mr. Harper may point to the improbability of 2000 additional trucks of live stock going on to the Brewarrina-Byrock railway in view of the fact that at the present time most of the live stock on which you have based your calculations go by Narrabri or Nyngan, the extra distance not deterring the owners from sending the stock to those stations instead of to Byrock, which would be 60 miles nearer;—how would you meet that objection to your estimate? I should say that any places which I reckoned upon as producing fat stock and sending them this way would all send them this way, in spite of the difference in the distance.

282. Your opinion is that this fat stock would go by the Byrock-Brewarrina line notwithstanding the fact that at the present time it goes by Nyngan and Narrabri—it is a matter of opinion, is that it—yours as opposed to Mr. Harper's? Yes; and it is also a matter of the views of stock-owners who have expressed their intention of sending this way in preference.

283. Can you say that it would be of so much advantage to the stock-owners to use the Byrock-Brewarrina railway that they would change their present mode of sending their stock to market? Yes; there is a consideration that is to be kept in view, and that is the fluctuations in the markets in Sydney. When a man starts a lot of fat sheep, which may be perhaps a month on the road, he does not know what the state of the market will be when he gets there, whereas if he can put his sheep straight into the trucks, he knows exactly what sort of market he will have to meet, because they will be at the market within the next few days.

Eugene Patrick Fennell, pastoralist, Wolkara Station, near Brewarrina, sworn, and examined:—

284. *Chairman.*] Are you a homestead lessee? Yes.

285. Where is your holding? About 14 miles from here, on the Barwon, between Brewarrina and Bourke.

286. What is the area of your holding? My brothers and myself have about 80,000 acres.

287. All homestead leases? Yes.

288. What stock have you? We have about 20,000 sheep and about 100 head of cattle.

289. At the present time where do you send the produce of your station to? Bourke and Byrock.

290. How do you send it? By teams and by steamer.

291. What freight do you pay by steamer? We pay from £1 to 30s. a ton.

292. Have you ever paid less than £1? No.

293. By team to Byrock what do you pay? I have never sent any by team to Byrock. We send fat stock to Byrock.

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294.

- E. P. Fennell. 294. You send your fat stock to Byrock and your wool to Bourke? Yes.
 15 Mar., 1898. 295. How far are you from Byrock? The nearest point of our station is about 40 miles from Byrock.
 296. But how far are your shearing sheds from Byrock? About 50 miles.
 297. You know the proposal to construct a railway from Byrock to Brewarrina? Yes.
 298. If that railway were constructed, what distance would your holding be from the nearest point to the railway? About 4 miles of the surveyed line joins our holding.
 299. In that case, I suppose you would send the whole of your wool and fat stock by rail? Yes, certainly.
 300. Is your land adapted for any use other than pastoral use? Yes; portions are suitable for farming, and we are at the present time farming some of it.
 301. What area do you farm? This year we are putting in about 60 acres of wheat.
 302. I suppose for home use? If the crop turns out well, we expect to have more than we shall require and then we shall send some to market.
 303. Do you expect to have more than necessary for home use? Yes; about half of what we grow will be sufficient for home use, I think.
 304. What area will be fit for agriculture? About 10,000 acres out of the whole lot.
 305. Will that be subject to inundation? No.
 306. Is any portion of your holding subject to inundation? Yes; but those portions which I consider fit for cultivation are not subject to flood.
 307. Do you get your station supplies from Bourke, at the present time? Chiefly from Bourke, sometimes from Brewarrina.
 308. Have you experienced any inconvenience in sending away wool or fat-stock? Considerable inconvenience in sending away fat-stock. Last year we had a very good lot of fat lambs, in fact all this district had, the best lot of lambs that I have seen in any district—I never saw better in the Sydney sale-yards—but we could not move them. The road from here to Byrock is so dry and unfit for travelling stock that we could not send them away at all but had to keep them on the place. Lambs are so much more delicate than grown sheep. We could send grown sheep but they have suffered a good deal on the track.
 309. Did you suffer any loss by not being able to send them away? I could not say that, but we could have got ready money for them, and as it turned out we had to hold them on.
 310. Do you think that you would use the railway from Byrock to Brewarrina in an ordinary good season? Yes; I should only be too glad to have the chance of doing so, because we would get the stock on to the trucks without wasting.
 311. You would not drive your fat stock as far as Byrock? No.
 312. Nor to Bourke? No.
 313. Do you send fat stock to Bourke? We have sent some.
 314. To be sent on to Sydney? Yes.
 315. Did you observe that they had deteriorated in value at all by droving between your holding and Bourke? Yes; in no instance have we sent sheep to Byrock or to Bourke without their wasting a good deal on the road.
 316. You feel quite confident that the fat stock would go by the proposed railway if it were constructed between Byrock and Brewarrina, and would not be driven to any point on the main Western line in good seasons? Yes;—you mean from our own holding.
 317. No, I mean generally from the district that would be served by the proposed railway? I think so. I think that the owners would be only too glad to avail themselves of the opportunity of getting their stock on the trucks quickly.
 318. Then, if it has been suggested that the proposed railway would not be used in good seasons for trucking stock because there would not be any loss to the owner in having the fat stock driven to Byrock or some other point on the main Western line, you are not of that opinion? I would not do it myself.
 319. I suppose, because you think it would be more advantageous to use the railway? Yes.
 320. And you conjecture that what would be useful to you would be equally useful to others in a similar position? Yes; I should think so.
 321. Have you considered whether you would be able to compete with outside markets in regard to agricultural produce? I have not considered that, but taking into account the price at which we get our land compared with what is charged for land in farming districts, I think that we would have a fair chance against them.
 322. You think that you could put your land to more profitable use than by using it for pastoral purposes? Yes; those portions suitable for farming.
 323. What do you pay per ton for the carriage of wool from Bourke to Sydney? I think it is about £5.
 324. And for live stock per truck? I think it is £3 10s. 10d. from Byrock to Sydney.
 325. Do you think that 15s. 6d. per truck would be a moderate charge from Brewarrina to Byrock? I think it would be a moderate charge.
 326. You could afford to pay that? Yes; we should prefer to pay it, instead of droving to Byrock, or to any other point.
 327. What difference per head would that make? There are about eighty to 100 in a truck of sheep.
 328. That would make a difference of about 2d. per head? Yes; I suppose it would be about 2d. per head all round.
 329. Do you think that you could afford to pay 2d. per head? I think so; because we have to pay it pretty well now.
 330. What would it cost you for droving? It depends on the times. If times are bad, it is very expensive.
 331. Taking the average? Taking an average, I suppose it would be 1½d. to 2d. per head.
 332. Then it would cost you as much for droving to Byrock as by train at 15s. 6d. a truck? I think it would be about the same, and we would have the advantage of getting the stock on to the trucks before they wasted.
 333. The cost not being less for droving than it would be by train, you would have the advantage of improved prices because of the better condition of your stock;—is that so? Yes.
 334. Do you think it would make any considerable difference in the selling price of your fat stock to train all the way instead of droving a portion of the distance? I think that trucking them very near their own paddock would make a difference in their favour.

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335. A substantial difference? Yes. Trucking is an enormous advantage to us over droving.
336. What quantity of wool did you send last year? 330 bales, I think. The exact number sent to Sydney was 254 bales.
337. From Bourke? Yes.
338. What did it cost you to send it to Bourke? Twenty-five shillings a ton, including forwarding charges by E. Rich, & Co.
339. By steamer? No; by team.
340. Why did you send it by team instead of by steamer? Because we could get no advantage by sending it by steamer. We could have got one lot taken at 22s. 6d.; but they handle the wool very badly on the steamers. They use a single hook for handling the bales, whereas carriers as a rule carry double hooks. The single hooks tear the bales very much, and the wool is cut out and rolled about on the ground before it is put on the boat, and it gets similar treatment in Bourke when they are unloading; whereas if you load it on to a team you load straight out of the shed.
341. You had the choice of sending by steamer or by team, and you found it more advantageous and not more costly to send by team? Yes; it suited us better to send by team last year, when procurable.
342. And of course it would be still more advantageous to you if you could send it by railway at a less charge? Certainly.
343. Therefore, in your case there can be no doubt about your using the railway? There is no doubt whatever.
344. Nor about your willingness to pay the local rate? I am quite willing.
345. You understand that from Byrock and Bourke the rates are similar? Yes.
346. And it is only a question of the cost of carriage from Brewarrina to Bourke, either by road or by steamer in the one case, or from Brewarrina to Byrock by road in the other case, as compared with the cost of rail carriage from Brewarrina to Byrock? Yes.
347. Do you know the country north of the Barwon? Yes; a good deal of it.
348. Do you know the country out east as far as Walgett and Collarendabri, or in that direction? I know it as far as Walgett.
349. Do you know it up to Goodooga? Yes.
350. And between Goodooga and Moree? I do not know that country at all.
351. Do you know the Narrabri-Moree line? No, I do not.
352. How far west of that line do you know the country? I know it to the Warrego pretty well.
353. About how many miles west of the Moree line would that be? I do not know the distance, but I think it would be about 150 miles or more.
354. Do you know a very large area of country over there? I know a lot of the country north of the Barwon.
355. What is the character of the country over there? It is very different in portions. The country east of the Culgoa is rich grazing country—some of it suitable for agriculture; and the country west of the Culgoa seems to be all suitable for agriculture.
356. East of the Culgoa may we take it that the country is of the highest class of pastoral country? Yes, I think so.
357. That is for the whole distance you know it east of the Culgoa? Yes, as far as I know it, it is a much better class of country than that west of the Culgoa.
358. And how far north? To within a few miles of the Queensland border.
359. As far as Angledool? Yes, and Goodooga.
360. Would it be all of the same class? Pretty well. Now and again there are a few sandhills towards Angledool. The country gets a little lighter in colour.
361. It is what you regard as the very best description of pastoral country, is it, north of the Barwon? Yes, it is. The country between the Narran and the Culgoa I consider to be of the very best description of pastoral country.
362. What portion of the area enclosed within the red lines on the map known as Mr. Sawers' map do you thoroughly know? The whole of the country with the exception of 24 miles to the east of the Marra.
363. With the exception of that portion, can you offer any opinion as to whether the proposed railway would thoroughly serve the area embraced within the red lines? I think so. I think it would suit the people there very well. It would be their nearest railway line, and they would naturally use it.
364. You are of opinion that the whole of the wool and the station produce of that area would come into Brewarrina? Yes. I know all the country west of the Marra.
365. And you say that the whole of that country is good pastoral country? Yes.
366. *Mr. O'Connor.*] What do you pay for wheat here? 4s. 6d. we paid for some seed-wheat lately—about 50 bushels.
367. I mean wheat for milling purposes? I have not bought any, and could not say. The seed-wheat for which I paid 4s. 6d. a bushel was locally-grown wheat, but neighbours of mine have bought wheat in Bourke which was grown somewhere down the line in a farming district, and they paid 6s. 3d. and 6s. 6d. for it.
368. *Mr. Fegan.*] Have you ever grown any wheat? Only for hay.

Cecil Lane Brown, manager, Brigalow Station, near Brewarrina, sworn, and examined:—

369. *Chairman.*] How many miles from Brewarrina is your station? Between 70 and 75.
370. In what direction? East—close to the eastern line shown on Mr. Sawers' map.
371. What is the area of the station managed by you? About 40,000 acres.
372. How many sheep does the station carry? The station buys and sells a lot during the year. We generally shear about from 30,000 to 40,000, and sometimes up to 45,000; but at other times we get down as low as 18,000 to 20,000 on the place. It is a buying and selling place. In good seasons we carry the sheep perhaps for three months at a time.
373. Where you send your wool to at the present time? Our wool has been going to Nevertire lately.
374. Why do you send it to Nevertire instead of by the river to Bourke? We have no river traffic unless we send it down as far as the Barwon, and the state of the country there is rather flooded sometimes.
375. Does it cost you less to send it to Nevertire than it would to send it to Bourke? It would be less carriage.

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- C. L. Brown. 376. What does it cost you to send it to Nevertire? £3 10s. to £4 a ton. It varies in different seasons.
 15 Mar., 1898. 377. And what is the rail charge to Sydney? £3 13s. 6d., I think, speaking from memory.
 378. What do you estimate it would cost you to send it by road into Brewarrina? I think from 35s. to £2 a ton.
 379. Do you know whether the rail charge from Nevertire to Sydney is the same as from Byrock to Sydney? I am not certain, but I think there is very little difference between them.
 380. Then if 10s. for carriage between Brewarrina and Byrock were added to the road carriage to Brewarrina, which you say would be about £2 a ton, there would be a saving to you of nearly £1 a ton by your using the proposed line; is that so? Yes.
 381. Therefore you are prepared to say that you would use the proposed line if it were constructed? Yes. We would not send our wool exactly to Brewarrina, but to a midway station.
 382. You would send it to a point on the Byrock-Brewarrina line? Yes.
 383. How do you obtain your station supplies—from Nevertire or from Bourke? Sometimes they come from Girilambone, and at other times from Nevertire.
 384. From where you can obtain the cheapest carriage? The land carriage is not material to us. The only question is, as to the state of the roads.
 385. Do you pay at the same rate? Yes.
 386. Do you know the whole of the country from that eastern line to the Culgoa? Yes, I have a fair knowledge of that country.
 387. Can you speak as to the character of the country—is it of the highest class of pastoral country? It is; that is, speaking of the country as a whole.
 388. Is that country equal to the 40,000 acres that you manage, generally speaking. Generally speaking, I do not think that it is.
 389. But it is of a high class of pastoral country? Yes, it is.
 390. Do you know the country to the east of your station? Yes.
 391. Between your station and the Narrabri-Moree line? Yes.
 392. Do you know the whole of that? Yes.
 393. Have you been over it? Most of it.
 394. How would you describe that country? It is almost on a par with the other country.
 395. It is all good? Yes.
 396. Have you travelled on the Narrabri-Moree railway? I have not been on that line.
 397. Do you know Walgett and Collarenebri? Yes.
 398. You will see on the map before you, suggested by a red line, a railway from Narrabri along the north bank of the Namoi, passing Wee Waa on to a point between Angledool and the Barwon; it stops short of Angledool, but if extended it would pass between Angledool and the Barwon;—do you think that that line would serve any of the country embraced within the red lines shown on Mr. Sawers' map? I think that if the two lines were constructed it would not interfere with the Brewarrina railway to any great extent; it might interfere with it a little, but not very much.
 399. You think that none of the traffic estimated in connection with the Byrock-Brewarrina line would be diverted to that line? I do not say that none of it would; a little might, but very little.
 400. Where would the traffic come from? Traffic from about Angledool might go by that railway, but for stock purposes it would be a very roundabout way to get to market.
 401. Will you explain why? The stock would go to Newcastle, and there is always a delay there in shunting stock, whereas on the other line there would be only a first transshipment.
 402. But at the present time does not a very large proportion of the fat stock go down the Northern line? Yes; the Western system, however, would be a much better route for stock to travel to from that area.
 403. As a matter of fact, at the present time do not the Narrabri-Moree line and the Northern line carry a very large proportion of the fat stock? They carry them because the owners have no other way of getting them to market.
 404. What would be the difference in distance do you think? I cannot say.
 405. Would the Byrock-Brewarrina line be the quicker route? Yes.
 406. And you think it would be the better line for the district? Yes.
 407. If you had the choice of two lines you would prefer to go down the Western rather than go by way of Narrabri? Yes; there is always delay in sending stock that way.
 408. Where? There is a delay at Newcastle, and then, again, at Strathfield. There is more traffic on the Western line than on the Northern, and the stock trains have to wait near Homebush for the convenience of passenger trains.
 409. Your answer is that stock is more expeditiously dealt with on the Western line than on the Northern line? Yes.
 410. And that would be an advantage to the owners of fat stock in getting their stock more speedily to market? Yes.
 411. *Mr. Fegan.*] Have you tried any of your land for agricultural purposes? I have tried a little of it, but only on a very small scale.
 412. How many acres? We have about 400 acres under cultivation in different patches.
 413. Under wheat? Some under wheat, other under lucerne, and some under oats.
 414. What are the results? The wheat is most satisfactory.
 415. I suppose it is all for hay? Yes—for station use.
 416. Not for seed? No.

WEDNESDAY, 16 MARCH, 1898.

[The Sectional Committee met at the School of Arts, Brewarrina, at 10 a.m..]

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (CHAIRMAN).

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

The Sectional Committee further considered the proposed Railway from Byrock to Brewarrina.

Joseph Mackenzie, pastoralist, Upper Bundabulla East, near Brewarrina, sworn, and examined:—

417. *Mr. O'Connor.*] How far is your station from Brewarrina? Forty-seven miles.
418. In what direction? Goodooga.
419. North from here? Yes.
420. How long have you lived there? Twenty-eight years.
421. What is the area of your holding? 24,134 acres.
422. How do you utilise it? Sheep and cattle.
423. How many of each? About 400 head of cattle and about 10,000 sheep.
424. Is any of your land fit for agricultural purposes? Yes.
425. How much of it? A good area; but I could not tell you exactly how much.
426. About 2,000 acres? Yes, fully.
- 426½. Are you in favour of the proposed railway from Byrock to Brewarrina, or are you against it? I am in favour of it.
427. For what reasons? I could get my stock away far better to market, and in better condition, and I am fully prepared to pay a greater freight on account of that to the railway. Moreover, our produce is handled in such a way by the steamer hands—dragged about and torn—that it is nothing like in proper order afterwards to meet the market. I would far rather pay a greater fee for sending it by railway from Brewarrina than for sending it any other way.
428. The condition of the cattle would be preserved? Yes.
429. And the gain to you would be so great that you could afford to pay a substantial sum for their delivery in better condition? Yes.
430. That would apply to both sheep and cattle? Yes.
431. How do you dispose of your wool? In Sydney.
432. By which railway do you send it? It goes to Bourke.
433. What do you pay for the carriage by boat? I pay 25s., and I have paid 30s. a ton.
434. What does it cost you to carry your produce from your station down to the steamer? £2 per ton.
435. And then 30s. besides? Yes.
436. So virtually, it costs you to send produce to Bourke alone £3 10s. per ton? It does.
437. Where do you get your supplies from? Chiefly from Brewarrina.
438. What is the quality of the land about where you live? Very good.
439. Have you many neighbours near you? Yes.
440. So far as an opinion goes, could you safely say that they would be as anxious to have the railway as you are? Yes, I can.
441. Then you regard the construction of the proposed railway as being very beneficial to you? I do.
442. And also to your neighbours? I do.
443. Do you think it would promote settlement? I am sure of it.
444. How many sheep do you send to market annually? From 2,000 to 2,500.
445. Every year? Yes.
446. How many bales of wool? I had 104 or 105 last season.
447. Is that about the general average? Yes; I never overstock.
448. How many sheep do you run? 10,000.
449. How many head of cattle do you send to market? Generally I send about 100 every year.

J. Mackenzie.

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Walter George Jameson, stock and station agent, Brewarrina, sworn, and further examined:—

450. *Chairman.*] Have you looked through the figures given by Mr. Harper in reply to Question 1229? Yes.
451. Have you checked his return of wool reaching Bourke and Byrock? Yes.
452. Are you prepared to say if there are any inaccuracies in that statement? Yes; I consider the statement is quite inaccurate and misleading.
453. Will you say in what respect it is? In the first place, there are only forty-three places mentioned as being in the Brewarrina district, for which he gives figures, in place of something like 140, which are actually in the district and from which wool will come. In the second place, some of the stations mentioned are not in the district at all, but in the Walgett district. On the other hand, in his return of wool coming from Walgett, he has included places actually in the Brewarrina district and close to Brewarrina. So he is evidently quite at sea as regards his calculation of the amount of wool that would come from the Brewarrina district.
454. Do you think that the item "Small clips, 853 bales," would cover the produce of the small holdings included in your list? That is not nearly enough to cover the other places.
455. Will you give the figures accurately, just pointing out the actual number of bales that you, in your statement, show would come from the holdings omitted from Mr. Harper's statement? Yes; in the first place, I would like to point out "Guisely, 301 bales." That is in the Walgett district, and should have been placed there instead of in the Brewarrina district. Guisely is within 25 miles of Walgett. Then, Milrea (which is spelt "Milray" in Mr. Harper's list) is credited with 1,422 bales, whereas Milrea is a small station belonging to Mr. G. A. Murray, and is within 20 miles of Walgett, and the number of sheep he runs is, I think, 20,000. So that is manifestly absurd.
456. Mr. Harper has credited Milrea with 1,422 bales;—how many have you credited Milrea with? Three hundred and seventy-eight. That was the number of bales that came by steamer from Milrea station in 1894; and, I suppose, that from 350 to 450 bales would be about the average from that station.

W. G. Jameson.

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457.

W. G.
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457. Then you say that Mr. Harper's estimate is fully 1,000 bales in excess of the actual number for Milrea? Yes; then there is "R.A.L. over Tarrion." That is a 10,000-acre lease belonging to Mr. Robert A. Low, and I suppose runs about 4,000 or 5,000 sheep, and it is credited with 663 bales, which is also absurd.

458. How many bales have you credited "R.A.L. over Tarrion" with? Cedar Glen is the name of the place, and I have credited it with 66 bales. Further on there is "Ballandool and Dumble," which in Mr. Yeo's return appears as "Dumble," and is there credited with 13,000 sheep. Mr. Harper says that 1,117 bales come from "Ballandool and Dumble." That shows that there are a good many more than 13,000 sheep. I would point out that Ballandool is situated just over the Queensland border, and at the time that return was made up some of the sheep belonging to Dumble were running in that Queensland country, and, therefore, did not appear in the New South Wales return.

459. Although the sheep do not appear in the return, the wool was sent by way of Bourke? Yes. The wool would be taken off about August or September, and the sheep would be sent to the Queensland country in November or December. In the Walgett portion of the traffic, as shown by Mr. Harper, there is a place called "White Wood," credited with 115 bales. The proper name is White Woods, and that place is situated 26 miles from Brewarrina, and belongs to Messrs. Cornish and White. It is a few miles off the Bokhara River. That shows that Mr. Harper is at sea as regards where places are. That holding is credited to the Walgett list, whereas it should be in the Brewarrina list. Abydos is credited with 94 bales by Mr. Harper, but I credit it with 100. That is only a slight discrepancy. From Gilgoi I have seen 773 bales actually sent by steamer, but Mr. Harper credits Gilgoi with only 523 bales.

460. *Mr. Fegan.*] You do not know what the destination of that wool was—it may have been sent on to South Australia? It may have been. I can only say that it passed through Brewarrina. "T.R.S. over Lipsley" is credited by Mr. Harper with 48 bales, but 84 were sent by steamer. R. Doogan, of Lolleep, is credited by Mr. Harper with 61 bales, but 105 bales were actually sent. Morrabilla is an out-station of Milroy, and is credited by Mr. Harper with 98 bales. Milroy and Morrabilla in conjunction, I believe, sent about 1,400 bales.

461. *Chairman.*] Can you say that Milroy is not included in any other entry in that list? It is not in the list.

462. Are there any other serious discrepancies to which you can point? Muckerawa is credited by Mr. Harper with 364 bales, but in 1894 568 bales were sent. Quantambone is credited by Mr. Harper with 1,150 but 1,296 were sent. Tallawanta is credited by Mr. Harper with 1,057, but 1,126 were sent. In almost every case there seems to be a discrepancy.

463. Having closely scrutinised Mr. Harper's list, and compared it with your own, are you prepared to say that your list is the more accurate? Yes, I am. There is not only the differences in the numbers, but also the omission by Mr. Harper of a great many places which would increase the total very largely.

464. Are all the places to which you have referred within the area enclosed by the red lines shown on what is called Mr. Sawers' map? All the places in my list are within the area, but Mr. Harper has mixed up the two areas, and has put some that are outside it in, and some that are inside it out.

465. That would be giving the railway credit for places outside the red lines? In some cases, and also the opposite in cases in which places have been left out of the list altogether.

466. Has Mr. Harper omitted any important places? Yes, a great many.

467. Can you mention a few of them? Places like Milroy.

468. You have included Milroy in your list, have you? Yes.

469. Mr. Harper has omitted it? He has it in his Walgett list, but it is on the Culgoa, and therefore should be in the Brewarrina list.

470. Would that not be within the area enclosed by the red lines? Milroy is within the area, but Mr. Harper has put it within the Walgett district.

471. Have you, in pointing out the discrepancies in the two lists this morning, regarded the returns from the Walgett District, included in Mr. Harper's list, as being excluded by him from the Byrock-Brewarrina railway traffic? Yes.

472. It now being pointed out to you that all the wool in that second list, known as the Walgett area list, is credited to the Byrock-Brewarrina traffic, are you prepared to make any correction of your evidence? Only so far as to say that Mr. Harper's is not a complete nor an accurate list.

473. I want you to show me as clearly as you possibly can where the great differences exist between your figures and Mr. Harper's;—may your representation be taken to have been correct with regard to those differences, now that your attention has been called to that fact? Yes; the difference between the number of bales credited by Mr. Harper and by myself still remains.

474. Then you say that in your list you have omitted a great many of the stations which Mr. Harper has included in his? Yes.

475. So that, if you were to add to your list the stations referred to as being included in Mr. Harper's list, the number of bales would be very much greater than appears by your list;—is that correct? Yes, that is correct. I have omitted the Walgett traffic, amounting to 6,763 bales. That is included in Mr. Harper's list. I have credited the proposed railway from Byrock to Brewarrina with nothing above Boorooma on the river.

476. What do you say would be the total tonnage of the wool as per list produced by you? 4,444 tons.

477. And if you were to include the 6,763 bales appearing in Mr. Harper's list, and which you have excluded, how much would have to be added to it? 1,324 tons.

478. Making the total? 5,768 tons—that is exclusive of 941 tons from stations just over the Queensland Border near Goodooga.

479. Having compared both lists, and having most carefully gone into the details, you adhere to the statement you have made, viz.: that the traffic in wool, instead of being 3,000 as estimated by Mr. Harper, would be fully 6,000 tons? Yes.

480. And you have taken steps, have you, to satisfy yourself absolutely as to the accuracy of the figures appearing in your schedule? I have.

481. *Mr. Fegan.*] You gave evidence on the assumption that the Walgett traffic, as placed by Mr. Harper in his second list, was not included by Mr. Harper as traffic that would be likely to come to the Brewarrina railway station if the proposed line from Byrock to Brewarrina were constructed;—is not that so? Yes. I think that in another portion of his evidence Mr. Harper says that this traffic, or some portion of it, would not come to Brewarrina in the event of a railway to Walgett being constructed. 482.

482. How many bales do you think you would be sure to get for the Byrock-Brewarrina railway from the districts surrounding Brewarrina? About 26,500 bales, or 4,444 tons.
483. How many do you think you would get from the Walgett district? 6,763 bales, or 1,324 tons.
484. Would you get any other? 4,944 bales, or 941 tons, from stations near Goodooga—over the Queensland Border. I may mention that those 1,324 tons from the Walgett district actually did come to Brewarrina, therefore it is no assumption to say that they would come.
485. In other words your grand total would be—what? 38,207 bales.
486. How many bales do you reckon to the ton? Six and two-thirds. The total weight that I have already mentioned was the actual weight of what was sent through Brewarrina.
487. That would be approximately double what Mr. Harper has credited the proposed railway from Byrock to Brewarrina with? Yes.
488. In regard to live stock, have you, since your examination yesterday, considered the matter, and tried to find out how the great discrepancies between yourself and Mr. Harper arose? Yes; Mr. Harper, in reply to a question, said that he had analysed the returns at Byrock and Bourke stations, and had credited the Brewarrina line with the stock coming from stations in his Brewarrina list, which, as you see, contains only about forty-three stations instead of about 140 stations. That would quite account for the discrepancy.
489. The difference is that he has credited only forty-three stations instead of 140, is that it? Yes.
490. On pages 52, 53, and 54, of the evidence already printed, you will see a large number of holdings; but in some cases, although the area of the holdings is mentioned, no sheep whatever are returned? Yes.
491. Is it possible for you to fill in those blanks? The Stock Inspector, I think, would be the best man to do that.
492. *Chairman.*] At Question 1227 Mr. Harper was asked—"Will you give us a detailed estimate of the quantity of wool that would probably be received from the area shown on Mr. Sawers' map, excluding the stations which you have mentioned?" and he replied, "In the estimate which is now before the Committee I have included practically every one of the stations within that area. I have given the quantity of wool coming from places between Byrock and Brewarrina, and going up stream towards Walgett. The wool traffic from all this area I estimate at 3,400 tons." Now, notwithstanding that answer of Mr. Harper, do you still assert that your list is correct, and that his list does not contain a great number of stations that are in that area? I do most decidedly.

W. G.
Jameson.
16 Mar., 1898.

James Howe Saunders, merchant and storekeeper, Brewarrina, sworn, and examined:—

493. *Mr. Fegan.*] How long have you been living in this district? A little over eight years.
494. So you have a fair knowledge of the business transacted in this town and district? I have.
495. You send stores to the various stations, or do they come in for them? I send stores out, and they come in for them as well.
496. Where do you get your goods from? Sydney principally.
497. *Via Bourke?* *Via Bourke* or Byrock. Some classes of goods come to Byrock more advantageously.
498. And some come by team and some by river? Yes.
499. Have you a written statement that you wish to read? Yes. It was written by me when I was about to leave the district for a few days, and I made the statement under affidavit. It is as follows:—

J. H.
Saunders.
16 Mar., 1898.

The Secretary, Brewarrina Railway League.

Sir,

Brewarrina, 20 November, 1897.

Replying to your inquiry as to weights of goods received by us for twelve months prior to 31st October, 1897, we say 400 tons or a little over.

A few years ago we went into the matter very carefully, and put over 1,000 tons through our hands; but having gone out of the forwarding trade we have now no interest in making up quantities.

In addition to this the bad season of the year under review induced us as far as possible to refrain from pushing trade.

We may also say that since considerable concessions have been made by the Railway Commissioners for large lines of wire, sugar, &c., we have been compelled to entirely cease getting these heavy goods direct by 6-ton trucks, as we used to do, and now have to depend on the mammoth importers of Bourke for a supply.

With regard to price, seeing that under existing arrangements, and with a good river, we are paying 25s. river freight, 3s. 6d. trolley rate through Bourke streets, and the additional labour of getting our goods from steamer here to our stores, we are quite satisfied to bind ourselves—other people do the same—to pay at least 15s. per ton per rail from Byrock to this town, and shall feel we are immensely served by such a reduction in cost, in addition to the advantage afforded by despatch, less handling, &c.

As business will compel my absence from town, I have made this statement on affidavit.

Yours,

SAUNDERS & CO.

500. Do you not think that in making that statement you ought to have given us the cost of the carriage of the various articles; would you mind telling the Committee what the carriage of the various classes of goods by river, rail, and road cost you,—first by rail? By rail from Sydney "A" rate goods are all sent in loads of 2 tons or more, but the charge I think would be something like 35s. a ton from Sydney to Bourke. "B" rate goods are sent in loads of 1 ton or more from Sydney to Bourke.

501. What would "A" rate include? Potatoes, oats, bran, pollard, and goods of that class. They are divided again, and some have an addition of 20 per cent. put on them lately. Flour comes in 8-ton truck loads, which we do not get from Sydney, but from places along the line generally, at a cost for carriage at from 16s. to 19s. per ton, say from Wellington or Dubbo. "B" rates include resin, salt, colonial wines, and goods of that class—perhaps twenty items, of which we handle only eight or nine. They come to about £3 9s., from Sydney to Bourke. First-class goods, half-ton loads, come to £6 to Byrock, and £6 9s. to Bourke. They include lime, cheese, bacon, golden-syrup, and treacles, and things of that kind. The second and third-class goods we generally put together and pay a truck rate for them. They include general drapery, fancy goods, and small ironmongery, and for a 6-ton truck we pay £42—that is about £7 a ton. If we were to get them separately we would have to pay more for some goods—about £11 for drapery, in fact for all third-class goods. Then we have to pay a commission to the forwarding-agent in Bourke, who has to pay the railway and load teams for us.

502. What is the commission you pay him? It varies slightly, according to the class of goods, but we may fairly reckon it at 5 per cent. For carriage by road from Bourke we pay from £1 5s. upwards per ton.

503.

J. H.
Saunders.
16 Mar., 1898.

503. What is the most you pay? In the time of the Unions we sometimes paid £2 10s., but now, with open competition, we would not expect to pay more than £1 5s. or £1 10s.
504. That is about the present price? The present price is exactly £1 10s.
505. What is the lowest price for which you have got the carriage done by road? £1 5s.
506. No lower? Not by the Bourke road.
507. What by the Byrock road? I have had large quantities as low as £1 when the season was good, but never less than £1. The charge is generally from £1 to £1 5s. There is not much difference by road. It depends upon on which road the grass is best.
508. Would it be fair to strike an average, and say that throughout the year the charge would be £1 10s. a ton? That would be a fair average.
509. Do you get any goods by steamer from any other colony? We do when the river is available.
510. Have you any idea how much merchandise you have got in the eight years from other colonies? I think that during the first four years that I was here the river was pretty well open, and I must have had about 500 tons probably.
511. What do you do now? 400 tons last year.
512. And you are only one out of how many? Messrs. McMahon Bros. put through more than I do, and there are three Chinese stores here. I have some knowledge of their business, as some of their goods pass through my hands, and the three may be put down at 100 tons between them. McMahon Bros. do a larger business than I do, and they carry on a large baking business which involves a lot of flour, which I do not handle for that purpose.
513. There was a time when you put through 1,000 tons? Yes, some years ago, when I was doing the forwarding trade.
514. Now you are in the retail trade only? Yes. Rich & Co. put through a very much larger quantity than any of us do.
515. But there was a time when you got 500 tons by river? Yes, from Adelaide and Melbourne.
516. Is there as much trade with Brewarrina carried on by river now as there was formerly? The river has been intermittent for some years past.
517. Therefore it is uncertain? It is too risky for us to order goods round while the river is in a low state.
518. All your goods this year you have got from Sydney? Entirely.
519. What is the cost of carriage by steamer from Bourke? I have paid nothing less than 25s., and as high as 30s. for some time past.
520. For how long past? The last two years.
521. Would it seem strange to you if people got goods from Bourke to Brewarrina for 12s. 6d. per ton? It would. I have never heard of such a thing.
522. You think that they would be a privileged class? Undoubtedly.
523. I suppose that your goods are no worse to handle than any other people's? No.
524. And you think that if anybody else got them for 12s. 6d. you would have the same privilege? If I believed it I would have a row with the people who carried for others for less than they charged me, and I should tell them that they must treat me in the same way as they did others.
525. If there is ever a 12s. 6d. rate it must be on rare occasions? I have never known such an occasion.
526. And you have been trading with the Bourke steamers for some years? Nearly nine years.
527. And you have never had an opportunity of getting your goods from Bourke to Brewarrina or to Brewarrina from Bourke for 12s. 6d.? Never for less than £1.
528. And you have paid from 25s. to 30s.? Yes.
529. How much would you be willing to pay the Railway Commissioners for the conveyance of goods by the proposed railway from Byrock to Brewarrina? 15s. a ton. It would be a great concession to me.
530. You think that you would profit considerably by it? Undoubtedly.
531. Though you would profit considerably by that, I understand that the greatest gain would be from the less handling and the quicker transit? Yes.
532. And not from the saving of money? We would save interest on the money. We should not have to stock so heavily, because there would be greater facilities for stocking with rapidity when required. We now lose business sometimes by the great delay which takes place in stocking.
533. As regards the cost of carriage, there would be the difference between 25s. or 30s. and 15s.? Yes; and also the saving of 3s. 6d. trolley rate for the conveyance of goods through Bourke to the steamer. There would be the difference between 15s. and 28s. 6d. at the very lowest, and sometimes more, besides the incidental advantages.
534. Have any of the landholders bought seed-wheat from you this year or last year? No.
535. Is there anything else you can tell us? I believe that the business of the distributors in this town would increase if we had the proposed railway, inasmuch as in the direction of Walgett the river is very often open for some little time after it is closed between Brewarrina and Bourke. It is open earlier and open later, and I believe that our business would be increased in volume in consequence of that.
536. Have you any idea as to the farthest distance you send your goods? Yes; 120 miles is about the outside range.
537. North or north-east? We send to Angledool.
538. You supply Angledool, do you? Yes.
539. Is Angledool chiefly supplied from Brewarrina? I would not say chiefly, but it is largely supplied from Brewarrina.
540. How do they get the major portion of their stores? *Via* Walgett.
541. They are nearer to Walgett than to Brewarrina? I think they are about half-way.
542. If the proposed railway from Byrock to Brewarrina were constructed, how far do you think you would be able to supply stores to people in the direction of Walgett? We go as far as Milrea, and I think that if we were to have the railway it would enable us to stretch out a little farther—pretty well up to Walgett. Milrea is about 40 miles from Walgett.
543. It would all depend on the prices? Yes; I think that our volume of trade would increase because we should have more facilities for business.
544. The river being navigable from Walgett to Brewarrina, do you think that the Walgett people would be able to cut you out of that trade? It would assist us.
545. Then you supply goods along there by means of river transit? Greatly, when the river is open.
546. Not by road? Both.

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547. But when the river is navigable do you use it in preference to the road? Yes.
548. On account of its being cheaper? Yes.
549. Is carriage by river quicker than carriage by team? Yes.
550. The construction of the proposed railway to Brewarrina then would help you to capture a larger portion of the trade this side of Walgett? It would assist us in that, decidedly.
551. Materially? Yes.
552. But if a line were constructed from near Narrabri along the north bank of the Namoi, and *via* Wee Waa, to a point between Angledool and the Barwon, would that line interfere with the earnings of the Byrock-Brewarrina railway in any way? If it passed Walgett, I think it would.
553. If that line were constructed to Walgett, would it interfere with the earnings of the Byrock-Brewarrina railway? No; I do not think it would.
554. How far would the proposed railway to Brewarrina influence trade towards Walgett and more north? I think that we may say that Milrea is about the limit of our influence from here, or a little distance past Milrea, perhaps. Milrea is just about half way. It is about 50 miles from here.
555. You would be able to take all the Goodooga traffic, then, I suppose, of which you get a portion now? Yes; I think that we should command Goodooga.
556. Therefore, if Walgett were the objective point on the North-West line, the construction of that line would not interfere in any way with the earnings of the proposed railway from Byrock to Brewarrina? I do not think it would.
557. Would it not take some of the station products—such as live stock and wool? I do not know how it would affect the wool trade. Not being in the wool trade I would not like to express an opinion.
558. Do you wish to say anything more? I am under the impression that, if we were to have the proposed railway from Byrock to Brewarrina, stock would come into this town more freely than it does now. We have about the best stock-routes this end of the Colony. I think, also, that, very probably something in the shape of a boiling-down establishment might be started here, if we were to have a railway by which to send away the waste products.
559. You would not boil down, except in times of drought? Certainly.
560. And very few men will speculate for times of drought only? Well, men in a district like ours must look forward to that.
561. Would you not rather say meat-chilling or freezing works? That is rather too large. I was thinking of it more as a means of relief in times of drought, which would give a lot of traffic to the railway. During the last drought everything had to be sent into Bourke to be killed, because we had no railway by which to send the stock away.

Thomas McMahon, storekeeper, Brewarrina, sworn, and examined:—

562. *Chairman.*] How long have you been in business in Brewarrina? I have been in Brewarrina within T. McMahon. a few months of twenty-four years.
563. How many tons of goods do you handle yearly? Our return for last year was about 711 tons— 16 Mar., 1898. Byrock and Bourke together.
564. What was the average cost to you for carriage? From Byrock the average cost was 22s. 6d. by team. It cost us about 24s. 6d. including commission to land goods here from the railway.
565. And from Bourke? 31s. plus insurance.
566. How did the goods come from Bourke? I am referring only to steamer trade from Bourke. We got the carriage done as cheaply or more cheaply by team. We paid by steamer 25s., and also 3s. 6d. for conveyance from the railway to the steamer at Bourke plus commission and insurance.
567. Have you known the freight on the river to be as low as 12s. 6d.? I have gone through the list of charges since 1892, and I can tell you the rates that we have paid, and can also show you documentary evidence in support of my statement. For river freight only from Bourke to Brewarrina, in 1892, we paid 30s. a ton in May; 30s. and 25s. in June; 25s. in July. 1893: January and February, 40s., 30s., and 25s. 1893: March, to March 1894, 20s. 1895: November, 30s. 1896: January to May, 25s.; August and September, 20s. 1897: January to 15th May, 1898, 25s. I may also state that having a large connection with Rich and Co. during the last ten years, we always got our freight 5s. a ton cheaper than any other consignee. We have had as much as 99 tons in one month.
568. There would be a very considerable saving to you if you could get goods from Byrock to Brewarrina, you would, of course, use the proposed railway? Decidedly. If the charge were 15s. a ton, I would use the proposed railway. Except as regards 150 tons last year—out of the 711,—we used the team from Byrock in preference to the river from Bourke.
569. If you could get your goods brought from Byrock to Brewarrina at 10s. a ton, you would effect a saving of, at least, from 15s. to 18s.? Yes.
570. Have you ever heard of anyone getting freight on the river as low as 12s. 6d.? I do remember one thing, which I think is an explanation of the matter to which you refer. I think it was in 1893, when we had a continuous river for one year, that Captain Pybus ran a steamer here in the interest of one of the Adelaide firms against Rich & Co. for the purpose of getting wool. Rich & Co. had already secured the principal part of the clip from the different stations, and Captain Pybus offered to carry wool from here to Bourke for 12s. 6d., but the trade having been already secured by Rich & Co., he did not get much to carry—only small lots. That is the only instance, of which I know, of such a low freight, and that was only for a few odds and ends.
571. Have you heard of any serious competition on the river during the time you have been in business here? We had several companies, as well as private individuals, running steamers when we had a good river.
572. During that time was the freight less than 20s.? Never. In fact, I think that in 1893 it was 20s, Mr. Saunders, I think, paid 25s. when we were paying only 20s.
573. Do you deal with Sydney or South Australian merchants? We had goods sent from Sydney, *via* South Australia, and also *via* Melbourne, by steamer in 1893.
574. Why did you not give the railway the benefit of the carriage? Because we could land goods from Sydney to Melbourne for about 4s. a ton, and for the carriage from Melbourne to Brewarrina we paid, I think, 75s. or 80s. a ton. That was cheaper than we could land them at Byrock.

- T. McMahon. 575. Can you not, at the present time, get freight at the same rates? It is not quite so low as it was then, and the river is not a certainty either.
- 16 Mar., 1898. 576. If the river were navigable, would it cost you less to get your goods from Sydney, by way of South Australia, than by rail from Sydney? Yes, I think about nearly half.
577. Then why do you not get your goods by steamer instead of by railway? We have no certainty of the river.
578. I mean when the river is navigable? But that would mean six months' navigation for a certainty.
579. Did the 700 tons of goods to which you have referred as having been handled by you in the course of a year, come by rail from Sydney to Byrock? Yes.
580. None of it by way of South Australia? None of it; the river was not sufficiently lasting.
581. Do you handle much wool? Very little, if any. I would not say that we handle any, except odds and ends.
582. Can you say if any of the wool of this district passes Bourke and goes on to South Australia? Yes, a good deal of it.
583. How many bales, approximately? I cannot say. I have not gone into the matter, but I think that a lot has gone down.
584. Do you mean thousands of bales or hundreds? One steamer would take pretty well 1,000; any of the ordinary steamers would take from 700 to 1,000.
585. You know of some of the steamers taking wool beyond Bourke? Yes; some of the last clip. I know that some of Rich & Co.'s steamers went down the river. I do not know whether the wool was taken to Adelaide or to Melbourne. I think that those steamers went to Echuca.
586. How far north does your business extend? We generally keep a commercial traveller on the road and we do business up to Walgett, and even in Walgett and from Walgett to Angledool and that neighbourhood, and sometimes across the border into Queensland and then take a run down the Culgoa and that way home. That is our general route. Then we go out to Corinda beyond the Marra Creek.
587. Have you seen a plan known as Mr. Sawers' plan, enclosing a large area by red lines;—do your business relations spread over the whole of that area and beyond? We go round through the Macquarie district and then across to Boorooma and Muckerawa. We go out by Comborah Springs. That is about as far north as we go.
588. Assuming that a line of railway were constructed from a point north of Narrabri and along the northern bank of the Namoi River and going between Collarendabri and Walgett to a point between Angledool and the Barwon, would the Byrock-Brewarrina railway be deprived of any of the traffic enclosed by the red lines on Mr. Sawers' map? My opinion is that it would all come this way—that is from as far as Walgett.
589. Are you aware that the route by the line I have indicated and the northern line would be about 50 miles shorter than the line from Brewarrina to Sydney? That may be, but this seems a more direct route.
590. Would that line interfere with your own business spreading as far as Walgett? No; if we had a railway from Byrock to Brewarrina the other line would not interfere with our business at all.
591. Do you think you would handle as many or more tons? More tons. I think that it would give us a better opportunity of doing a more extensive business, simply because we have Bourke to contend with and we now have to pay an extra rate from Bourke to Brewarrina. In that case we should have to pay freight from Byrock and that would enable us to compete against the Bourke trades-people in our own district. Rich & Company for instance now do a lot of trade up the river.
592. With cheaper carriage between Byrock and Brewarrina you would be able to augment your business because it would enable you to sell at lower prices than you can at present? Yes. If we can do business at Walgett now, we should be able to do it much better if we were to have a railway here.

W. Dickson.

16 Mar., 1898

William Dickson, pastoralist, Yarrowin, near Brewarrina, sworn, and examined:—

593. *Mr. O'Connor.*] How far is your holding from Brewarrina? The head station is about 30 miles from Brewarrina, but the boundary of the run comes within 8 miles of Brewarrina.
594. What area have you? About 254,000 acres—that is, Crown lands and freehold lands combined.
595. How do you utilise it? Growing wool and fattening sheep and cattle.
596. How many sheep? We generally shear from 80,000 to 90,000 every year.
597. How many cattle? We do not breed many cattle. We chiefly fatten cattle. Last year we sent 700 fat bullocks to Sydney.
598. Would you mind telling the Committee the reasons why you think the proposed railway from Byrock to Brewarrina should be constructed or otherwise? I will first of all make a statement of our own business. During 1897 we sent away fully 700 head of fat bullocks, all railed from Nyngan to Homebush; also, about 14,000 fat wethers, part being treated at meat works at Nyngan, and the products being railed to Sydney; the balance were railed from Nyngan to Dubbo, and treated at the meat-works there, and the products were railed on to Sydney. If all the stock had been railed to Sydney direct, about 250 trucks would have been required for their conveyance. With railway communication, Brewarrina would be one of the best places in the Colony for meat-works. During 1897 we sent about 151 tons of scoured wool and nearly 16 tons of greasy wool to Sydney, and used nearly 70 tons of stores, wire, and other material; and already, in 1898, we have received over 40 tons of stores and other material from Sydney *via* Bourke. I would always use the railway rather than steamers for the carriage of wool and goods, as I should thereby save extra handling and expense. Until this inquiry was commenced, I never heard of wool being carried by steamer from Brewarrina to Bourke for 12s. 6d. per ton, and I do not think it is at all likely. We have generally sent our wool to Rich & Co. of Bourke, and have always paid 25s. per ton and upwards for carriage from Brewarrina to Bourke, and, in addition, have paid other charges and also insurance. From Brewarrina to Bourke alone the latter would amount to (say) 10s. a ton on scoured wool. I may say, that during 1897 we sent only about 50 tons of scoured wool by steamer from Brewarrina to Bourke, and the insurance on that was £27. Quite recently we have had to pay 40s. and 45s. per ton on goods from Bourke to the 18-mile point—a place about 16 miles up-stream from Brewarrina—and at a time when there was plenty of water in the river. We have generally cultivated from 50 to 60 acres every year since 1889 for growing hay, and we generally get fair crops. Of wheat, we get fair crops four seasons out of five.

599.

599. Did you say how many bales of wool you sent annually? I did not give the number of bales, but the weight, namely, 151 tons of scoured wool and 16 tons of greasy wool. We had about 1,386 bales of scoured wool and 84 of greasy wool. I may say further, that the bulk of our wool for the last three years has been sent *via* Girilambone. It is carried by teams to Girilambone and thence by rail to Sydney; therefore it would not appear in Mr. Harper's returns.
600. In your immense area of land is there much fit for agricultural purposes? A considerable portion of it would be fit for agriculture.
601. I suppose that if you had the facilities that a railway would afford you would put a lot of that under crop if it would pay you? Yes, if it would pay me. Generally speaking, my land is pastoral land; but still there are portions which would be suitable for growing cereals and fruit.
602. You think it would be a great advantage if a railway were constructed from Byrock to Brewarrina? I think it would be a great advantage in many ways. It would be the means of saving a great many valuable stock during times of drought, either by bringing forage to this district or by carrying stock to districts not drought-stricken. If this part of the country were drought-stricken stock could be sent by the proposed railway to places where plenty of grass and water were available.
603. *Chairman.*] What did it cost you for the carriage of wool to Girilambone? £3 per ton is what we paid for road carriage.
604. What distance? About 85 miles.
605. And what is the railway freight;—on scoured wool, £5 per ton, making the total for carriage to Sydney £8? Yes, about £8.
606. What would it cost you to send by rail, assuming that a railway between Byrock and Brewarrina be constructed;—and what would be the road carriage to the nearest point on that railway? About 30s. would cover the road carriage to Brewarrina, and 10s. would pay for the railway freight to Byrock, making altogether £2 per ton, and the freight from Byrock to Sydney would be £5.
607. So you would save £1 per ton? Yes.
608. And I suppose that it may be assumed that if you could see your way to save £1 per ton you would send to Brewarrina instead of to Girilambone? Undoubtedly; if a railway were constructed from Byrock to Brewarrina we would send all our wool to Brewarrina.
609. What would be the saving in distance if you were to send to Brewarrina instead of to Girilambone? We would save about 50 miles of road carriage.
610. How would the Byrock-Brewarrina railway benefit you by the carriage of fat stock? It would cost us more to rail fat stock from Brewarrina to Sydney than it costs us to send it at the present time; but we would have the advantage of getting them on the rail more quickly. At present we send our fat stock to Nyngan. We send them about 100 miles by road. If there were a railway to Brewarrina we should have to send them only about 30 miles by road to Brewarrina.
611. Would it cost you more for railway freight from Brewarrina to Sydney than from Nyngan to Sydney? Yes; as it is now we send fat stock from our station to Nyngan, and we have to pay droving expenses. If there were a railway from Brewarrina the freight from Brewarrina to Byrock would be 15s. 6d. a truck, and that 15s. 6d. would just about pay for the present droving from our station to Nyngan; so that if the proposed railway from Byrock to Brewarrina were constructed we should have our fat stock landed in the trucks at Byrock for the same cost as we now land them in the trucks at Nyngan, and they would be in better condition; but we should have to pay the additional railway freight between Byrock and Nyngan.
612. What would be the additional railway freight? I think that on cattle we should have to pay about 3s. a head more from Byrock than we now pay from Nyngan.
613. And on sheep? About 2d. or 3d. per head more from Byrock than we pay from Nyngan.
614. So although it might directly entail upon you an additional charge of 2d. or 3d. per head for sheep, the indirect advantages would be much greater? Yes.
615. *Mr. Fegan.*] How many leases have you in that 254,000 acres? In the Western Division we hold 174,000 acres of Crown lands approximately, and they have between twenty and twenty-one years to run. In the Central Division we hold about 28,000 acres of Crown lands, and the leases will expire in two years' time. We also have nearly 32,000 acres of freehold land, and we have 20,000 acres of conditional purchase and conditional lease land. That is a total of 254,000 acres approximately.

William Lindsay, pastoralist, Charlton, near Brewarrina, sworn, and examined:—

616. *Chairman.*] Are you one of the proprietors of Charlton and Compton Downs holdings? Yes.
617. Situated where? Between Brewarrina and Byrock.
618. *Mr. Fegan.*] What is your area? Charlton station: 97,000 acres leasehold land, and about 8,000 acres freehold land, and about 12,000 acres travelling stock and railway reserves, and about 5,000 acres resumed for railway purposes—to be cut up for settlement or otherwise. Compton Downs: Leasehold area, 25,000 acres; resumed area, 4,000 acres; freehold, about 160 acres. The sheep carried on the two stations are from 60,000 to 75,000 sheep, according to the seasons. We have on an average from 1,000 to 1,100 bales of wool, weighing from about 180 to 200 tons. We also have on an average about 9,000 fat sheep for market in ordinary seasons, and in good seasons sometimes more. There are two stock routes through one holding and one stock route through the other. Last year we cultivated a small area for hay—from about 6 to 7 acres—with the result that we got altogether about 12 tons off that area. It had always been said that we never could grow hay there, but the last two years we have tried it. I may mention that the ground last year was ploughed on the 5th March, and the seed was sown about the 13th of March, and it had no rain to make it grow until the 18th or 19th of June—that is, the seed was about three months in the ground without any rain. The crop was cut on the 29th of October, with the result that we got about 2 tons to the acre, clearly showing that the land was good for wheat-growing. Fat stock I have generally sent to Byrock and trucked there for Sydney, but should a railway be constructed to Brewarrina we should often send trucks of 100 or 200 sheep by train then, whereas it would not pay us now to send less than from 800 to 1,000 to Byrock. All our wool and stock both from Compton Downs and Charlton would go by rail if the proposed railway from Byrock to Brewarrina were constructed. I may mention that the area of about 5,000 acres that was resumed as a railway reserve is all good wheat-growing country. About one-half of Compton Downs is also good wheat-growing country.

311 (a)—D

619.

- W. Lindsay. 619. How far are you from Byrock railway station? Charlton is about 35 miles from Byrock railway station and Compton Downs is about 23 miles from it.
- 16 Mar., 1898. 620. Is Charlton Station east or west from here? South—right on the Bogan. The surveyed railway line runs through the whole of the resumed area of Charlton.
621. Brewarrina railway station would be nearer than the Byrock railway station to you? Yes.
622. But if the proposed line were constructed you would take your produce to Byrock? If there should be any platforms erected on the line between Brewarrina and Byrock we should take it to the nearest.
623. But considering only Byrock and Brewarrina, if the proposed line were constructed you would take your produce to Byrock in order to save carriage? From Charlton we should take it to Brewarrina, but from Compton Downs we should take it to Byrock.
624. Therefore, half your holdings only, it may be said, would give anything like a return to the proposed railway? More than that, because we shear more sheep at Charlton than we do at Compton Downs? Compton Downs has not such a large area as Charlton has.
625. Are the capabilities of the land on the two stations equal? No.
626. Which is the better? Charlton; it has also a larger area.
627. So you would give much more freight to Brewarrina than you would to Byrock? Yes.
628. If the proposed railway were constructed, do you expect that a greater area would be put under crop, after the experience you have had? Yes; because of the country being suitable for growing crops, which has been proved.
629. Would you find a market locally? We should find a market locally for a certain quantity, but the excess over that would have to be taken to Sydney or elsewhere.
630. What is the ruling price of hay in the district? We have never purchased hay; but we have paid as high as £9 a ton for chaff.
631. Would you look upon hay as superior to chaff for fattening purposes? Most certainly the hay grown in the district would be, for the chaff you buy is generally rubbish. In 1895 we bought a great quantity of chaff, but instead of doing the stock good it did them harm, on account of the rubbish that was in it.
632. So the hay grown in the district you would prefer to chaff for which you pay £9 a ton? Certainly.
633. Would that be the average price? It would be rather high.
634. What is the average price? About £6. We have to pay extra carriage on the hay.
635. You say you got 12 tons from 6 acres? Yes.
636. That would be £72 for the 6 acres? Yes, and under unfavourable conditions, the seed being three months in the ground without any rain.
637. That would pay you much better than stocking? Yes.
638. I suppose that under present circumstances the reason why no greater area is put under cultivation for wheat or hay is because you think you have not fair facilities to reach the market? That, and because it has never been tried, the impression being that hay would not grow here.
639. After your experience, what are you doing this year? Putting in another crop.
640. What area? The same area, because I have not had time to increase it on account of the season being so dry previous to the last fall of rain.
641. It is not too late to put in a larger area now? It has to be in about March—that is the proper time for this district.
642. A part of the land there is not heavily timbered, and would not want much clearing? It requires a certain amount of clearing.
643. Not very much? No, not very much.
644. The position is this: You say you pay £6 for hay, which would be £72 for 12 tons, and, as a man who thoroughly understands his business, you would think you were doing fairly well if you ran a sheep to the acre? You cannot run a sheep to the acre in this country.
645. I say that you would do fairly well if you could do that? Certainly.
646. I see it figures out that you cannot run 2 acres to the sheep? No; it takes 3.
647. Well, if you could get £6 an acre, would not hay pay you a great deal better? Most certainly, if we had railway communication and could take the hay to market.
648. But even as you are at the present time, seeing that half of your run is very much nearer to Byrock? But I think you do not understand that the last crop we put in was only just in the experimental stage.
649. But if the experiment has turned out so well as to give you that return it would be a fair thing to rely upon it, would it not? Yes; but where that crop was grown we have not sufficient country available to cultivate on account of being surrounded by Crown lands. The cultivation was on freehold land, but it would not pay us to improve the Crown lands considering that the resumed area by which that freehold land is surrounded is open to be taken away from us at any time. We cannot cultivate on the resumed area with freedom.
650. But you have 160 acres of freehold? Where the proposed railway line is surveyed we have about 440 acres freehold, but we require that for horse-paddocks, and a garden, and so on, for household purposes.
651. But are those 440 acres equal to the 6 acres you put under cultivation? Yes.
652. Well, that is a fair area upon which to grow hay if it pays so well as that? But we cannot do without the paddocks.
653. If you were to put 300 acres under cultivation would you be able to get £6 a ton for your hay—would you have a market for it? I think we should have a market for it provided that we cut it up into chaff, because at the present time people cart chaff from, I think, about 15 miles on the other side of our holding into Brewarrina.
654. If the experiment has proved so successful, do you not think that it is worth while to put a larger acreage under crop? I do, most certainly.
655. Do you think that there are many of your neighbours who are disposed that way? Yes. There is a homestead lessee on the resumed area who put in a crop last year for the first time. He is satisfied with the result, and is going to put in a crop again.
656. How far does he live from Byrock or Brewarrina? He is about 25 miles from Brewarrina and about 40 from Byrock.
657. What does it cost to clear your land: probably all these areas will be open for selection at some time in the future, and if it costs a great deal of money to clear this land it means that a poor settler or small

- small holder cannot very well take up the area? Well on the 5,000 acres that I mentioned, I do not believe that there is more than 1,000 acres that would require clearing, because most of it is plain country, well grassed. W. Lindsay.
16 Mar., 1898.
658. Then it would not need a man of large capital to go on to it? No.
659. And under those conditions it means that a number of those areas could be thrown open to make homes for a great many more than are living there at present? Yes. As regards the area we cultivated I do not think it cost us more than about 3s. 6d. an acre to clear it.
660. What would it cost to prepare it and sow it and do everything else ready for cropping? To clear it and sow it and harrow it and make it ready for cropping would cost, the first year, about 17s. 6d. or 18s. an acre.
661. At the outside you could do everything for £1 an acre? Yes, that would cover it all. The next year it would cost about 12s.
662. I suppose that you are not troubled with rabbits on your run? Not to any extent.
663. Is your holding fenced in? It is wire-netted on two boundaries; it is not surrounded with wire-netting.
664. Did you wire-net it? No; we paid a proportion of the cost of the wire-netting.
665. The Government did not wire-net it? No; an adjoining station.
666. I suppose it cost something between £50 and £60 a mile to fence and wire-net it? I think that the wire-netting costs £60 a mile.
667. That is, fencing and wire? No; wire-netting it and adding new posts to the old fence.
668. It costs, then, something like £70 or £80 a mile to wire-fence your holdings? If you put up a new fence, it would cost about £60; but this fence was wire-netted and new posts had to be put in in different places and wires taken out, and this caused a lot of trouble.
669. With new methods, you are now able to cope fairly with the rabbits;—they are not the huge pest they seemed to be at one time? Oh, no.
670. Where do you get your stores from? From the Byrock railway station.
671. From Sydney? Yes, principally.
672. And, of course, you send your wool and other products in connection with your station to Sydney? They go direct to Sydney.
673. Do you send any either to Melbourne or to Adelaide? No, they all go to Sydney.
674. What timber is there on your land—any ironbark? No ironbark. There is beef-wood on the Compton Downs and iron-wood.
675. Not of very much value at present? Not at present.
676. *Chairman.*] What does it cost you to send your wool at the present time to Byrock? We generally cart it with our own teams.
677. What do you estimate it would cost you if you had to employ teams? From Compton Downs it would cost about 15s. a ton, and from Charlton, I suppose, we might get it done for 30s., but we have paid as much as 35s. and 40s. from Charlton.
678. Therefore, you could afford to pay 7s. 6d. from any point between Byrock and Brewarrina, or 10s. from Brewarrina, by railway? Yes, it would pay us better to do that.
679. In that case, about how many tons would you send by the Brewarrina railway? From about 180 to 200 tons of wool only.
680. How many tons of station supplies do you receive in the course of a year? About 40 tons.
681. What does it cost you to get your supplies? They are generally carried by our own teams.
682. And you would estimate the cost of carriage at the same rate as you have already mentioned? Yes.

John O'Dwyer, homestead lessee, Avondale, near Brewarrina, sworn, and examined:—

683. *Mr. O'Connor.*] What distance is your station from Brewarrina? About 30 miles.
684. What area are you cultivating? I have none under cultivation at present, but I am clearing land for cultivation. J. O'Dwyer.
16 Mar., 1898.
685. How many acres are you in possession of? Ten 240-acre blocks. There are myself and sons, and we have 30 odd thousand acres.
686. How do you utilise the land? By grazing.
687. How many sheep do you run? About 10,000.
688. Any cattle? Yes; 20 or 30 head, and 14 or 15 horses.
689. Where do you send your produce to at the present time? Byrock.
690. What is the distance from your place to Byrock? From the homestead itself, about 25 miles.
691. What do you pay for carriage? From 15s. to 17s. 6d. a ton. We have paid as high as 35s.
692. Where do you send your wool to? Byrock.
693. And on to Sydney? Yes.
694. What wool are you producing in a year? From 20 to 30 tons—an average of 22 or 25 tons.
695. Is any of the land that you hold fit for agricultural purposes? Fully one-half, or more than that.
696. Have you tested it at all? No. I am now clearing land for cultivation; but the land immediately outside my fence has been tested by my neighbours to the extent of 200 and 300-acre paddocks.
697. You know the route of the proposed railway from Brewarrina to Byrock? Yes; I should be about 5 miles off that route.
698. Would you like to make a statement of the reasons why you think the proposed line should be constructed, or otherwise? My principal reason for wishing for a railway is that I should like to go into cultivation. We find that we cannot do so well on the small areas, unless we combine agriculture with grazing, and the land being so good we should like to put in a lot of crop, but at the present time the cost of carriage is against us. I know that from my neighbours who are cultivating largely. A neighbour of mine had 240 acres in last year, and the crop was about a mile from my boundary, and on similar land. Off that paddock he cut 100 tons of hay, and about 300 bags of wheat. He had to send that 40 miles to Bourke, and, of course, that is a big item. If we had a railway along the surveyed route from Brewarrina to Byrock, I do not think that there is any doubt that a lot of us would get a siding from which to send our crops away.
699. Is the surveyed line close to your land? It is within 5 miles of my homestead. 700.

- J. O'Dwyer. 700. Are there any holdings alongside of yours? There are several. There are ten or twelve homestead lessees in that locality.
- 16 Mar., 1898. 701. Close to you? Yes; all adjoining.
702. Have you any idea what the rainfall is in your district? About 19 inches has been the average for the last sixteen years.
703. You can produce wheat with that rainfall? Yes; I have seen it produced during the last three years.
704. If you had facilities such as this railway would afford you, you would go in pretty largely for cultivation? We should like to get in about 2,000 acres; that is our idea.
705. And I suppose that what you did your neighbours would do also? Yes; they are doing it before me.
706. Is your land equal to theirs? About the same; there is only the boundary fence between their land and mine. I think it is some of the best agricultural land in Australia. I know all the Junee and Wagga country, and I knew it before it was ever cultivated, and have seen it since. This is similar land. The soil on my holding is in some places 17 feet deep.
707. How long have you been in the district? Between sixteen and seventeen years.
708. Have you been a pastoralist during all that time? Yes. I was managing a large station. I managed Glenariff for ten years.
709. How were you employed before you came here? I was grazing in the Wagga district. I came from Wagga to this district.
710. Does the land here bear favourable comparison with that land? I say it is equal to the Junee land and to the Cootamundra land, which I consider is as good land as there is in Australia.
711. Have you ever been in the Riverina? Yes, I have been all through the Riverina.
712. Were you ever near Jerilderie, Berrigan, or Finley? I have not been there, but I have been all round the Wagga district and Junee, and also in the Cootamundra district, which I knew very well before there ever was a farm there.
713. And you are of opinion that the land here is as good? Yes; I am sure it is. On my place I have fruit trees, and all kinds of fruit and vegetables grow as well as they do in the Wagga district.
714. Will you be able to produce fruit here to any extent? In any quantity.
715. Grapes? Yes, in any quantity. I am growing them now. I have a nice orchard, and I have been only seven years on the place.
716. Under what conditions do you hold your land? It is a homestead lease.
717. How long is your lease for? It is a twenty-eight years' lease.
718. What portion of that time has expired? Eight years.
719. You have twenty years left? Yes.
720. Is there anything you wish to add to your evidence? What I wish the Committee to understand is that 10,000 acres of this land are too small an area for grazing sheep alone, and we should like to add agriculture. I and my sons have 30,000 acres between us, but some of my neighbours have only one block, and I suppose that a little later on my sons will be going on their own hook, and then we shall have a 10,000-acre block apiece. A 10,000-acre block would carry from 2,500 to 3,000 sheep at the outside. From 500 to 1,000 acres of crop would pay me better than 2,500 sheep.
721. Your evidence summed up means that you with many others similarly situated are considerably embarrassed for want of means to get to market, and that the construction of the proposed railway from Byrock to Brewarrina would afford you facilities, and you could not only raise sheep and grow wool, and graze cattle, but you would also be able to grow vegetables and particularly fruit, including grapes to any extent, which means an important industry? Yes, and wheat and hay.
722. But without a railway you are practically paralysed? Yes; it simply blocks us. If we had railway communication with the market I could to-morrow get several people to come and work the country on the halves system—I fencing the blocks and supply water, and they finding the labour.
723. That system is extending very much in this colony? Yes; and I think we could get it carried out here if we only had the means of getting our produce to market.

Andrew David Kerrigan, manager, E. Rich & Co. (Ltd.), Brewarrina, sworn, and examined:—

- A. D. 724. *Chairman.*] What is your position? I am manager for Rich & Co. at Brewarrina.
- Kerrigan. 725. How long have you occupied that position? From about 1893. I have been in the firm about sixteen years, and have been here about six years.
- 16 Mar., 1898. 726. How long have you been in the district? Ever since I was born.
727. Do you remember being examined before a Sectional Committee in 1896 in reference to a proposal to construct locks and weirs on the River Darling? Yes.
728. On that occasion you gave certain evidence as to the tonnage passing by the steamers from Brewarrina to Bourke? Yes.
729. Have you before you the figures showing the actual tonnage reaching Bourke from Brewarrina and districts? I have not made it up, but I have it here.
730. Well, take three years—1892, 1893, and 1894? I have not 1892.
731. Have you 1893? I have.
732. Well, take the tonnage up-stream first? I cannot give you that. I have not the book here; I have only oddments in this book.
733. Can you give the tonnage up-stream for 1892? No.
734. For 1893? I have never added the lot together; but I have it all here.
735. Can you say what quantity left Bourke, and was delivered between Bourke and Brewarrina? I can give you only the tonnage that arrived here from Bourke in 1893 from April to December, and was despatched out to the back creeks. It was about 526 tons.
736. What was the intermediate traffic? I cannot tell you; I never kept an account of it.
737. Have you any means of ascertaining? I have—from Bourke.
738. But you cannot tell us the traffic between Bourke and Brewarrina by any books to which you have access in Brewarrina? No.
739. Was 526 tons the total traffic that reached Brewarrina in that time? That is not including the up-river traffic at all, but simply what was sent out back.

A. D.
Kerrigan,
16 Mar., 1898.

740. What quantity reached Brewarrina to pass on to Walgett, or to places between Brewarrina and Walgett? I should say double that quantity.
741. That would be 1,000 tons? Yes.
742. Can you say, approximately, from your knowledge of the traffic of the river, what quantity of goods would have been delivered between Bourke and Brewarrina? I should say about 60 or 70 tons.
743. Can you give similar information for 1894? I have the information for 1894, but have not added it up yet.
744. Have you similar information for 1895? Yes.
745. And for 1896? No.
746. Up to what month in 1896 have you? I have only odd months—August, July, May, and April.
747. So you would not be able to give the details for 1896? No.
748. With regard to the wool and station produce coming down stream from Walgett to Bourke, have you similar information? Yes.
749. For the years that have been specified, or for a longer period? For 1893, 1894, and 1895.
750. Was the river navigable the whole of 1892? Yes.
751. And the whole of 1893? Not the whole of 1893. We sent some wool by teams in 1893.
752. For what period was it navigable? August, September, and October, and part of November—about four months.
753. For about four months only? Yes, during the wool season.
754. And in 1894, was the river navigable throughout the year? Yes, I think it was navigable throughout the whole year.
755. Can you say if the river was navigable in 1895? It was navigable, but for short periods. It was an uncertain river; it would be navigable three or four weeks and then drop, and afterwards go up again.
756. The returns that you gave of traffic up stream by steamer extended over four months only, the river being navigable for that period? No; from April to December.
757. Was the river navigable for the whole of that period? Yes.
758. It was navigable for up-stream traffic from April to December? Yes.
759. But for down-stream traffic during the wool season it was navigable for wool traffic for four months only? Yes.
760. What wool came to Bourke past Brewarrina in 1893? Roughly speaking, 22,000 bales.
761. Is that the whole of the wool that came by river from Brewarrina and from Walgett? Yes, the whole of the wool traffic by river that passed through our hands.
762. Did any other pass through your hands to be sent on by team? Yes. There are different stations which had wool that went to Nyngan and which sent only a few bales this way. McKay Bros. sent only a few bales this way.
763. Would your 22,000 bales comprise all the clips of the district that would be served by the proposed railway from Brewarrina to Byrock? No, I should think they would extend over that number.
764. About how many bales? I could not say without going into the matter.
765. Can you get the information? I think so.
766. Information that will enable the Committee to estimate the probable traffic that would reach the Byrock-Brewarrina railway? Yes.
767. On page 70 of the evidence already given there is a list of stations with the number of bales from the whole of those stations;—would you be able to examine that list and say if, in your opinion, the wool from those stations would reach the Byrock-Brewarrina railway in the event of that line being constructed? Yes.

Augustus Sullivan, pastoralist, Cowga Station, near Gongolgon, sworn, and examined:—

A. Sullivan,
16 Mar., 1898.

768. *Chairman.*] Are you a leaseholder? Yes.
769. How many miles is your station from Brewarrina? Thirty-seven.
770. *Mr. Fegan.*] In what direction? It is east of south from Brewarrina, and about 8 miles from Gongolgon.
771. What is your area? Between 42,000 and 50,000 acres. I have three 5-mile blocks.
772. What do you utilise it for? For grazing sheep.
773. Anything else? A few cattle.
774. Have you tried any under cultivation? Yes, a little.
775. How many acres? About 5.
776. Wheat for hay, I suppose? Oats for hay.
777. What was the result? I do not know.
778. What would the distance be from the proposed railway to your station? About 18 miles, I think.
779. How far are you from Byrock? Forty-six miles.
780. What is the distance to Brewarrina from your station? Thirty-seven miles.
781. How many sheep do you run on your station? From 15,000 to 20,000.
782. What was your clip last year? From 200 to 300 bales.
783. Did you send it to Byrock? Yes.
784. What was the cost of carriage to Byrock per ton? Thirty shillings; that is what I usually pay.
785. You have had to pay more at times? I have had to pay as much as £3 a ton.
786. And sometimes £1 a ton, I suppose, when you could get it done for that? No, never.
787. Thirty shillings is a fair average price? Yes.
788. Do you send any fat stock to market? Yes.
789. What do you send? Sheep; but I very seldom train them.
790. What do you call your market for them? Bathurst, generally.
791. Do you drove them all the way to Bathurst? Yes, I have always done so.
792. In what condition do your stock arrive at Bathurst? Very good; but they have been trained from Bathurst to Sydney, though.
793. So, really, Sydney is your market? Yes.
794. It would be very expensive taking them to Bathurst that way, would it not? It is cheaper than by train.

- A. Sullivan. 795. So that, so far as railway communication between Byrock and Brewarrina is concerned, it would afford you no facilities, considering the cost of taking fat stock to market? If the train were to come by Tarcoon I would rather truck them at Tarcoon than send them by road. For the future, I intend to truck them all at Nyngan if the train does not come closer than Byrock.
- 16 Mar., 1898. 796. What distance is Tarcoon from your station? Between 18 and 28 miles.
797. Then, as far as fat stock is concerned, if the proposed line from Byrock to Brewarrina were constructed it would not give you very much more facilities than you have at present? Yes, a good deal, because I would truck my stock.
798. I am looking at the distance you take your stock to Bathurst—a considerable distance—although you have railway communication nearer to you than that, in the face of that you take your stock to Bathurst, and pass several railway stations much nearer from which you could truck? But the reason why I did that was because I had a holding at Bathurst; but I have no holding there now.
799. The real reason why you drove them to Bathurst was on account of the drought here whilst you had good country there? Yes.
800. How far is Bathurst from your station? About 320 miles.
801. You have given up your holding at Bathurst and retained your holding here? Yes.
802. Because it is better country? No, I do not think so.
803. Have you trucked any stock from Byrock or Nyngan? I have trucked cattle from Byrock and Nyngan.
804. How much per truck did you pay? I cannot say exactly.
805. Where do you get your supplies from? Bourke.
806. How far are you from Bourke;—much farther than from Brewarrina? A little farther.
807. Why do you get your supplies from Bourke? I buy my goods at Bourke, and they are delivered at Byrock for me.
808. But is not Brewarrina nearer? Yes.
809. Thirty-seven miles compared with 46? Yes.
810. Are goods much cheaper at Bourke? Much cheaper.
811. Do you know the reason why? I cannot say the reason.
812. What quantity of supplies do you have annually for your station? Between 8 and 9 tons.
813. How long have you been in this district? Over twenty years.
814. As regards the stores that you consume they would amount to very little so far as railway traffic would be concerned? I may probably use more than I have said. I get about 8 tons at shearing time.
815. Do you know any other reason why the proposed railway should be constructed? I think that all the West Bogan country could be turned into agricultural country.
816. There are large blocks of country along the existing railway lines which have not been turned into agricultural country, although they have had railway communication, is that not so? Yes.
817. However, you think that the construction of this proposed railway would be the means of inducing landholders to put a greater area under agriculture? They would do it on the river country where they have water, but where the surveyed line goes along they have no water at all.
818. There are not many rabbits on your holding? Not very many.
819. You are not afraid of them the same as you used to be—at one time it was a terrible thing to think about them, was it not? Yes.
820. But since you have phosphorised pollard and other things you do not think much about the rabbits? No.
821. Although it is rather costly to deal with them? Yes.
822. It takes a lot out of the returns? Yes, it does.

THURSDAY, 17 MARCH, 1898.

[The Sectional Committee met at the School of Arts, Brewarrina, at 10 a.m.]

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (CHAIRMAN).

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

The Sectional Committee further considered the proposed Railway from Byrock to Brewarrina.

Andrew David Kerrigan, manager, E. Rich & Co. (Ltd.), Brewarrina, sworn, and further examined:—

- A. D. Kerrigan. 823. *Chairman.*] Have you brought with you a statement showing the whole of the river traffic? I have brought only a few things.
- 17 Mar., 1898. 824. For how many years? For 1893 and 1894.
825. Have you now before you a statement showing the whole of the river traffic up and down stream for the years 1893 and 1894? Yes.
826. Will you read it? For 1893, 22,000 bales or about 3,300 tons, and at the same time in 1893, there were 2,000 or 3,000 bales that went by road, equal to 1,200 tons more.
827. Making the total by road and river, 4,500 tons? Yes; I am giving the road traffic approximately only. We do not take account of the number of bales that go through by road. That is just an idea—perhaps more went through.
828. In saying 4,500 tons you consider that is the minimum? Yes, I do.
829. Now up stream for the year 1893? I gave that information yesterday.
830. That would be correct? Yes.
831. Yesterday you gave the figures only as far as Brewarrina? I simply gave the figures from Brewarrina outwards. I did not know the others.
832. You did not give us the tonnage that left Brewarrina for delivery at Walgett? I cannot give you that, because I am not in a position to do so. The steamer takes the bills of lading on.
833. Can you say approximately? From what I know I should say that from 1,500 to 1,700 tons went up the river.

834. Can you say approximately how many tons were delivered at Brewarrina from Bourke during the year? I should say that from 1,500 to 1,600 tons passed through Brewarrina for delivery above Brewarrina, between 60 and 70 tons were delivered between Brewarrina and Bourke, and 700 tons came here to be sent out back, and 1,800 tons were left in Brewarrina for the Brewarrina shed, and McMahon and Saunders, and the Chinese stores; making a total of about 4,200 tons.

835. Do you think you have under-estimated or over-estimated the traffic for the year 1893? I do not think I have over-estimated it.

836. You think that is about accurate? I think it is as near as possible.

837. At any rate you can pledge yourself to over 4,000? I think, I can safely do that.

838. Now give me 1894? 1894 was almost a similar year.

839. But in 1893 you had only nine months, whereas in 1894 you had the whole year? Very often we do not have the river available here for more than four or six months in the year, but in 1891, 1892, and 1893, we had it for nearly the whole year round.

840. Have you included in your total of 4,000 tons the road traffic as well as the river traffic? Yes; all the traffic that passed through here.

841. And in 1894? Very similar. It was a bad year. A lot went by teams. It did not come through here exactly, but went up the Culgoa. If there had been a railway here I think it would have come here and gone by it, but having no feed on this route they had to go up the Culgoa.

842. Are you sure that not less than 4,000 tons of loading left Bourke for and above Brewarrina? I cannot say for a certainty whether there was more or less, but that is my idea as to what did go.

843. What experience have you had which would enable you to accurately judge of the traffic? I have been here since 1893, and have handled everything that has gone through the place except what Wright, Heaton & Co., handled when they were here, and I know what they handled pretty well.

844. Is there any one in the district able to give more accurate information on this subject than you are? I do not think so.

845. Now take the down-stream traffic of the district for the same years? About 22,000 bales went by river during the season 1893, amounting to 3,300 tons, and there was also a great quantity that went by load; I cannot say exactly the number of bales or the weight.

846. If you were asked to estimate the quantity, about how many tons would you say went by road? I did on one occasion go through the wool that went through Brewarrina during 1893, 1894, and 1895, and I estimated that each year from 28,000 to 30,000 bales went through here, including the river and the road traffic.

847. Went past Brewarrina? Yes. When the river is running, and the wool can be sent down stream by boats, teams fetch it in from out back.

848. Do you think that the whole of that would go by rail if a railway were constructed between Byrock and Brewarrina? I do not say the whole, but I say that what we would lose in one way we would get from other sources.

849. That there would be the equivalent to 28,000 bales sent by railway? Yes.

850. What would be the tonnage of the 28,000 bales? I think it would run into between 5,000 and 6,000 tons if it were principally greasy. You can average greasy and scoured wool together at about six bales to the ton, or a little more. We average greasy wool at five bales to the ton, and scoured at eight.

851. What other produce besides wool would be likely to reach the proposed railway? Hides, tallow, and skins.

852. Giving approximately what tonnage? I cannot say.

853. Can you form an opinion? About 200 tons I should say.

854. You had placed in your hands last night a statement put in as evidence by Mr. Jameson, showing the whole of the stations from which traffic might be expected in the event of the proposed railway being constructed; the statement placed in your hands is supposed to contain a list of the whole of the wool received from stations within the area shown by the red lines on the map, known as Mr. Sawers' map. Can you say, from your knowledge of the traffic of the river and the road, whether that is a correct list? I have checked all the figures in that list with my own figures, and have proved them to be correct with the exception of those relating to Charlton and a few other stations. Mr. Jameson has put down the quantity for Charlton Station at 339 bales. I think it will be considerably over that. Weilmoringle, he has put down at 1,273 bales. That may have been the quantity for one year, but I think it is generally more than that. The quantities from a few of the stations are over-estimated by Mr. Jameson.

855. Will you point out wherever in your opinion the quantities mentioned are excessive? There is White & Co., Yucurrie. Mr. Jameson has put that down at 153 bales, and he shows it again in the abstract.

856. Twice entered—is that it? The explanation that he gave to me when I asked him about it, was, that it was not estimated enough, inasmuch as some had gone by road, and he put it in there to show there would be seventy bales more.

857. How many bales are entered? 223 altogether.

858. In your opinion how many bales would come from Yucurrie? Not more than 211. That was what they had in 1893.

859. With regard to that station, there is probably a discrepancy of 11 bales? Yes.

860. Will you look at the total given in Mr. Jameson's statement? Yes.

861. Are you prepared to say that that is correct—that is, from the knowledge that you have of the wool and produce coming from the various stations? I think he has over-estimated hides and tallow and skins.

862. To what extent? I should say, fully 200 or 300 tons.

863. You are aware that Mr. Harper's estimate of traffic from wool, skins, tallow, and hides is 3,430 tons? Yes.

864. Do you say that is an under-estimate? I believe it is.

865. Do you say that Mr. Jameson's statement—that the actual amount of wool sent to Brewarrina by steamer for the 1894 season from stations within the sphere of the proposed railway, as shown upon the map produced to you, would be about 2,300 tons, and that other wool produced in the district, also within the sphere on the proposed railway, would be 2,144 tons, making altogether 4,444 tons, would be a fair estimate? Yes, I should say so.

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866. Do you think it is an extravagant estimate? I think he has exaggerated the tallow and hides.
867. I am speaking of the wool? I think he has over-estimated the tonnage.
868. To what extent? I cannot exactly say.
869. Well, what is your own opinion? I think he has over-estimated it by about 300 tons.
870. For skins, hides, tallow, and general produce Mr. Jameson's estimate is 500 tons;—do you regard that as a correct estimate? No.
871. What, in your opinion, would be the maximum quantity? About 200 tons.
872. Therefore, you think that Mr. Jameson is wrong to the extent of 300 tons in that estimate? Yes.
873. I suppose that you are in a better position to form a correct estimate of the probable tonnage than Mr. Jameson would be? I should say I am.
874. Now, with regard to return loading, your estimate for which is 4,200 tons as against Mr. Jameson's estimate of 5,100 tons;—do you consider Mr. Jameson's estimate is excessive? I do not know where he got his figures from; he may be more accurate than I am. I am only giving mine as far as I can remember. I have no books dealing with the matter, and he may have got his figures from a more reliable source than I have, and I would not like to say he is wrong.
875. You are of opinion that the quantity would not be less than 4,000 tons? I am of opinion that it would not be less than that.
876. Would that embrace the whole of the traffic of the district which is likely to reach the proposed railway from Byrock to Brewarrina? No.
877. What other traffic would, in your opinion, come to the proposed railway? I should say 268 tons of extra out-loading would come through here.
878. Have you the evidence of Mr. Shainwald on page 70? Yes.
879. Have you carefully considered the figures given in Mr. Shainwald's evidence, and can you explain the discrepancy in quantities between his returns and those you have given us to-day—I mean as regards the loading both ways? The only way I can explain the discrepancy is, that he does not take the team traffic into consideration. He does not seem to have considered that at all.
880. You have taken into consideration the road traffic, but Mr. Shainwald's returns are confined solely to the river traffic? I think so.
881. Do you think that if you were to add to the figures given by Mr. Shainwald the road-traffic which would reach the Brewarrina-Byrock railway the figures would be accurate, or nearly accurate? As near as I can give it to you.
882. Therefore, there would be no discrepancy if Mr. Shainwald had not omitted from his returns the road traffic? I do not say that he has omitted it, but it appears to me that he has done so.
883. Do you think that that is a fair explanation? It is as fair as I can make it.
884. Now will you turn to Mr. Harper's evidence; from the figures before you you can see that Mr. Harper has arrived at a total of about 55 per cent. of that given by yourself; the details are contained in the evidence before you now, can you offer any explanation that you think would account for so wide a difference? In the Brewarrina district he has "Guisely" which is actually in the Walgett district, and to which he credits 301 bales, whereas all that we have ever sent was 105, and 196 bales in 1893 and 1894.
885. In that case he has given the proposed railway credit for more than it would actually receive? Yes. He has Milrea 1,422 bales, whereas all that we ever received in 1893 and 1894 was 426 and 378 bales.
886. That is a difference of about 1,000 bales, for which Mr. Harper has given the proposed railway credit over and above what you know has come from that station? Yes.
887. Will you show me where Mr. Harper has omitted to credit the proposed railway with probable traffic? As regards Yarrawin, which in 1893 and 1894 sent 1,172 and 1,536 bales, he credits it with 1,170 bales. Then he places Boorooma in the Walgett district, and he credits it with 1,955 bales, whereas 1,966 bales were sent. He has also placed Milroy in the Walgett district, and he has credited it with 433 bales, whereas 767 were sent through us by steamer alone, and about 700 more went by team. White-woods is in the Brewarrina district, but he has placed it in the Walgett district. Then he has "small clips, 225 bales." I should say they would average more than that.
888. The differences you have mentioned would not make anything like 2,000 tons? No.
889. And 2,000 tons would be the difference between Mr. Harper's estimate and yours? There are lots of places he has not put down at all.
890. Are there in Mr. Jameson's statement many holdings specified which are omitted from Mr. Harper's statement? Yes, there are a large number.
891. About how many;—do you think there are more than forty? I would not say just now that there are more than forty, but I have already counted twenty-six, and there is a large number which I think would make up the difference.
892. Would the quantity of wool coming from those stations not mentioned in Mr. Harper's estimate be material in connection with possible railway traffic? Yes.
893. Do you think that you could furnish to the Committee to-morrow morning a list showing the omissions from Mr. Harper's estimate? I will try.
894. Have you seen Mr. Harper's statement of the total quantity of wool received by the existing railway at Byrock and Bourke, viz., 1,253 bales at Byrock and 26,449 bales at Bourke? Yes.
895. Can you explain in any way the apparent discrepancy between Mr. Harper's statement of the wool actually sent by rail from Bourke, and the quantities you say you know passed through this district to Bourke? Mine went by steamer and by team.
896. Mr. Harper says that the total quantity of wool received at Byrock and Bourke was 27,702 bales? Yes. I make mine by river 21,738 bales; and that bears out my statement that a lot went by team.
897. But your estimate of what went by team is nearer 2,000 tons? It would be about 6,000 bales.
898. But Mr. Harper says that the average tonnage for the three years is only 3,400 tons of wool that reached the railway at Byrock and Bourke? But I think that he takes the scoured wool and the greasy wool all alike. If he were to make up the weight of the greasy wool and the weight of the scoured wool separately it would make a vast difference in his estimate.
899. But that would scarcely explain the wide difference between your estimate of nearly 6,000 tons and the figures which Mr. Harper says he has obtained from the railway authorities, viz., 3,400 tons? I cannot account for the way he has made it up.
900. Is it possible that he has made a mistake by omitting to give credit to the Brewarrina-Byrock railway for

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for wool that actually came this way from the Brewarrina and Walgett districts and has credited it to the west? Yes, it is quite possible! He has certainly left out a lot of wool.

901. I suppose that a very large quantity of wool comes from stations to the north and west of Bourke? There are a lot of stations from which the wool would come in here if we had a permanent river or a permanent means of getting it away, whereas it now goes direct to Bourke.

902. If you can, I want you to offer some solution of the very difficult question as to the quantity of wool that should be credited to the proposed Byrock-Brewarrina railway; Mr. Harper credits it with about 3,400 tons against nearly 6,000 tons, which is your estimate, and he says that he has given credit for every bale of wool that now comes to the railway at Byrock and Bourke from the Brewarrina and the Walgett districts? I do not think he can have done that.

903. You think that Mr. Harper must have been in error? I think he has made a mistake somewhere.

904. As to the upstream traffic, I suppose you are in quite as good a position to judge as Mr. Harper as to the quantity reaching Brewarrina from the Brewarrina and Walgett districts? I should think so; we handle it all.

905. You think that you are more likely to be correct than he is? That is an awkward question to answer.

906. Supposing that you were to meet Mr. Harper, do you think that you could satisfy him that he is in error? I could not satisfy him, as I have not the books; I have gone only by what I know has really passed through.

907. Can you say if freight on the river has for any considerable period been as low as 12s. 6d. a ton? Never that I know of.

908. What is the lowest freight that you have charged from Brewarrina? £1.

909. What is it at the present time? Twenty-five shillings, delivered on the trucks.

910. That includes cartage I suppose? Yes; storage and everything else.

911. What is the lowest charge for carriage by road? We have got wool away at £1 and 22s. 6d. At that time we had a contract on and had to take it away.

912. Do you know the quantity of tonnage by river or by road that would be influenced by Rich & Co., at Bourke—that is, tonnage that they could control, so that in the event of the proposed railway being constructed that tonnage would still go by river? I cannot answer that question.

913. You have no information on that point? No, I have not.

914. What is the cost of obtaining goods from Sydney *via* South Australia? I do not know.

915. You do not know what the difference is between the cost of trainage direct from Sydney to Bourke, and the cost of obtaining goods by sea, rail, and I suppose team or river, to Brewarrina? I am not in a position to say.

916. Do you know the river freights below Bourke? Without fully estimating them I could not give you an accurate answer to that question.

917. I suppose that your knowledge is confined to the traffic between Bourke and Brewarrina, and as far as Collarendabri? Yes.

918. Do you know anything of the traffic of the districts shown on the map before you that would be served by railways from Narrabri to Pilliga, going on to Walgett, and from Warren to Coonamble, and from Woolabra to Collarendabri? No. I do not know exactly where those lines come in.

919. There is a red line on the map showing the proposed railway from a point between Narrabri and Moree, passing along the north bank of the Namoi, and coming out between the Barwon and Angledool;—assuming a line to be constructed as there indicated, would that affect any of the traffic which, according to the estimate which you have given us to-day, would reach the Byrock-Brewarrina railway? I think it would affect it a little.

920. Would that railway serve any portion of the area indicated by Mr. Sawers' map better than the Brewarrina-Byrock railway would, having regard to the fact that the distance to Sydney *via* the first-named line would be 50 miles shorter, so far as railway carriage is concerned? I think that most of the traffic would come to Brewarrina, the people there having all the necessary facilities for coming this way, whereas they have no facilities for going the other way. Even if a line were constructed to that point it would be difficult for them to get there at any time. The Narran overflows its banks, and goes out for miles. The other day it was all over the country, and people had to shift all their stock on to the red soil.

921. Could facilities be provided, the absence of which, you think, would be an obstacle to them at the present time in going that way? They could, at great cost.

922. You think that the estimate of traffic for the proposed railway from Byrock to Brewarrina would not be affected by the construction of the line I have indicated? That is my opinion.

923. What effect would the construction of a railway from Warren to Coonamble have on the estimate of traffic by this route? None at all.

924. Would the proposed line from Narrabri to Pilliga, if extended to Walgett, affect the estimate of traffic for the proposed line from Byrock to Brewarrina? Not to any great extent.

925. From your own personal balance-sheet, can you tell the earnings of the steamers between Bourke and Walgett? All I can show you is a copy of a ledger showing the exact debits and credits to the earnings of the boat.

926. Do you feel at liberty to give that information without consulting your principals? It is my own private affair, and I do not think I need consult them.

927. Are you willing to give that information? Certainly.

928. Will you be good enough to state what the earnings of the steamers have been for any one year? I can produce the balance-sheet and papers from August, 1890, to October, 1891, showing the gross earnings to have been £4,443 17s. 6d., by my own steamer, between Bourke and Walgett, up and down.

929. Is that the steamer "Cato"? Yes.

930. That steamer was owned by yourself? Yes.

931. And you say that your earnings by one boat were £4,443 17s. 6d.? Yes.

932. At that time was your steamer running in opposition to the steamer of Rich & Co.? No.

933. Had you the whole of the traffic of the river? No.

934. Was there any competition at the time? Yes.

935. What other boats were running? The "Pilot," "Elfie," "Mundoo," "Sadler," and another boat.

936. Did the other boats receive a fair share of the traffic? I think, I received the bulk of it.

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937. What proportion of the traffic did you receive? Every time the boat came down I could get a load for it.
938. Comparing the traffic obtained by you with the total traffic of the river, about what proportion did you get? I should say that I got a good half.
939. So that the probable earnings of the whole of the steamers during the whole of that year were about £8,000? I think that would be very nearly correct.
940. Why did you discontinue running your steamer—I suppose it was profitable? Yes; it was profitable.
941. Can you say why you discontinued running it? We formed the concern into a company.
942. What company? G. White & Co.
943. Did G. White & Co. continue to run the boats after the company was formed? Yes.
944. I suppose you have kept in touch with the traffic generally? I am still in the firm.
945. Well, let us have the benefit of your experience as to the river traffic after you formed the company? As far as I can remember, the first year it paid very well, but since then they have been purchasing more boats, and the result is that we have found ourselves behind in bad years. The river has been so uncertain, it was bad in 1894, 1895, 1896, and 1897, and the wool traffic has been only a quarter or half of what it would be, if the river had permanent water in it. If a substantial rise in the river took place and let us run for a couple of months at the right time we would do very well.
946. Are you still connected with the same firm? Yes.
947. I thought you said you were connected with Rich & Co.? They say they own the boats, but I do not think they do.
948. The boats running on the Barwon are owned by G. White & Co.? Yes.
949. Not by Rich & Co.? No.
950. Are Rich & Co. interested in the boats? They have shares.
951. Are there any boats running in competition with you? Yes.
952. Running in competition with White & Co.? Yes.
953. Has the traffic increased or has it diminished since 1891? It has not diminished.
954. Can you say if it has increased? I think it has.
955. Substantially? It would increase substantially if we could always make sure of shipping peoples' wool here.
956. Does the company pay any dividends? I am sorry to say that we have not had a dividend for some time past.
957. May we infer from that, that it would not be possible to carry the traffic on the river profitably at as low freights as are at present quoted? According to the rivers and seasons we have had the last three years, it would be impossible.
958. Taking the result of your experience since 1890, do you think it would be possible to declare dividends or run the steamers at a profit if you were to carry wool at less than 20s. a ton? I do not think so.
959. So if you were to attempt to carry wool at 12s. 6d. or 12s. a ton you must incur a very heavy loss? From my experience, I should say so. If they started doing that I should sell my shares out quickly.
960. Do you think that if the proposed railway from Byrock to Brewarrina were constructed, it would be likely to depreciate the value of your shares? Not at all; I think it would increase their value.
961. Will you explain in what way;—supposing that that railway is to get all the traffic, how will it increase the value of your shares? For the simple reason that we will go up-stream into other portions of the river—out Mungindi and other ways—and have a large place here in which to put the wool, and bring it here by water.
962. That is to say, your steamers could be profitably worked between Brewarrina and places farther up? Yes.
963. Making Brewarrina your depôt instead of Bourke? That is it.
- 964-5. I suppose that you would not regard the earnings of the Byrock-Brewarrina line as at all prejudicially affecting the Bourke line, inasmuch as at the present time the through rate to Byrock from Sydney is the same as to Bourke? Yes. And as there are practically no earnings between Byrock and Bourke, the earnings between Brewarrina and Byrock would be a substantial addition to the railway revenue.
966. *Mr. Fegan.*] Do you know of any time when the freight was down to 12s. 6d. a ton? No.
967. How long have you been connected with the steamer company? I think it was in 1893 or 1894 that we formed the company.
968. Therefore, you would have a very good idea if the freight went down as low as 12s. 6d.? Yes, I would have a good idea.
969. In your evidence you said that it would be impossible to carry goods profitably for less than £1 a ton? I do not think it would pay.
970. You said you would sell your shares if such a thing happened? Yes, I would.
971. That shows you think that it would be very unprofitable—very bad speculation—to carry wool for less than £1 a ton? Yes.
972. I suppose you have seen the evidence where a gentleman representing Rich & Co. said that they had carried it for 12s. 6d.? I have.
973. Do you think he made a mistake? I think he must have. He may have meant 22s. 6d.
974. You think that is what he meant? I think so.
975. And that it was a clerical error;—it ought to have been 22s. 6d. instead of 12s. 6d.? I have never known it 12s. 6d.
976. And I suppose that you have been dealing with the produce just as much as Mr. Shainwald has? Yes.
977. I suppose that goods could be carried by team without your knowing the quantity? Yes.
978. How have you arrived at the estimate of the goods carried by team? I have an idea of how many teams come in and how much stuff we get in ourselves, and, multiplying one by the other, you get a fair idea.
979. What is the next place for loading wool above Brewarrina up the river towards Walgett? Walgett.
980. What is the freight from Walgett to Bourke? £2 10s.

981. Does that include transshipment at Brewarrina? Yes.
982. How much do you put down for that? Ten shillings a ton.
983. Much handling of wool and produce deteriorates their value, does it not? Certainly. They are handled a good deal, but they are carefully handled by us.
984. If you load 4 or 5 miles up the river you have to pay 10s. a ton for re-handling? Yes.
985. That makes it more expensive for the producers? That is the difficulty now, in getting wool to come this way.

A. D.
Kerrigan.

17 Mar., 1898.

FRIDAY, 18 MARCH, 1898.

[The Sectional Committee met at the School of Arts, Brewarrina, at 10 a.m.]

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (CHAIRMAN).

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

The Sectional Committee further considered the proposed Railway from Byrock to Brewarrina.

Blakeney Broughton, Inspector of Stock, Brewarrina, sworn, and examined:—

986. *Chairman.*] What is your position in the Public Service? Inspector of Stock for the district of B. Broughton, Brewarrina.
987. Have you brought with you a statement showing the extent of the area within the red lines marked upon a map known as Mr. Sawers' map, and also the number of stock within that area? I have brought a book showing the number of stock in that area approximately.
988. How many acres are comprised in that area? 3,490,660.
989. Will you give us a general idea of the description of the country and its carrying capabilities? It is first-class pastoral country.
990. The whole of it or the greater portion of it? The whole of it. Well, there is a very small area of country that is not rung which would be good if it were rung—west of the Culgoa—but that is a very small area compared with the whole area, nearly the whole of which is first-class pastoral country.
991. Well-watered? Well-watered by the rivers Culgoa, Narran, Birie, Bokhara, and the Barwon, the Marra Creek, the Bogan River, and the Womerawah and Tarrion Creeks.
992. In addition to that have the pastoral lessees provided tanks where necessary? Yes, tanks wherever necessary—well improved.
993. How many sheep are there according to your return, say for three years, depastured in that area? About 1,250,000 would be the average for the three years.
994. How many years' returns have you? I have returns for 1895, 1896, and 1897.
995. Will you give them respectively? 1895: horses, 4,765; cattle, 16,164; sheep, 1,371,470. 1896: horses, 4,983; cattle, 9,265; sheep, 1,038,092. 1897: horses, 4,516; cattle, 7,979; sheep, 1,019,170.
996. Are your figures compiled from the owners' returns? Yes, from returns made on the 31st December each year according to law. Of course, the numbers are considerably less than they would be at shearing time, because all owners reduce their stock about that time of the year. If the returns were made in June or July—shearing time—there would be a difference, I should think, of quite 300,000, taking the district through.
997. Then we may take the average as being 1,500,000. Is that so? That would be about it.
998. Your district, I think, does not comprise the whole of the land shown on the plan known as Mr. Sawers' plan? No, it does not include the whole of that.
999. You have pointed out a small portion not comprised in your district and also a portion in your district not shown on that plan? Yes.
1000. What would be the difference between the number of sheep depastured upon those two portions? I should think about 50,000.
1001. Should that be deducted from the 1,500,000 or do you think that 1,500,000 would be a fair average? I think 1,500,000 would be a fair average.
1002. Is there any information which you could give which would be of service to the Committee, with regard to the travelling stock routes, for instance, and also with regard to the live stock leaving the district and the direction in which they travel? Crossing from Queensland into this district there were on the average each year about 500,000 sheep and 40,000 cattle during the last three years.
1003. Are the travelling stock routes through this district very important ones? Very important.
1004. As important as any other travelling-stock routes in the Colony? I think it is the best outlet for travelling-stock from Queensland, and very important.
1005. Can you say in what direction the 500,000 sheep and the 40,000 cattle would be distributed? That is Queensland stock alone that comes through. Of course, there is an enormous number of stock that come from the stations in the district.
1006. Well, take the Queensland stock first—at what point of the railway would they be trucked? A great part of them would be trucked here. Of course, a number of them are store stock.
1007. And would not be trucked? No. The owners travel them down in a good season.
1008. You are not now speaking of fat stock? Not that total number.
1009. In connection with the proposed railway, it may be better for you to specify about how many would be fat stock? 100,000 of the sheep would be fat and about 5,000 of the cattle.
1010. Where would the fat stock be trucked, assuming that there was a railway between Byrock and Brewarrina? They would be trucked at Brewarrina.
1011. The whole of them? Yes, certainly.
1012. That is dealing with Queensland stock; now take the stock from the district comprised within the red lines shown on the plan? About 250,000 would be, I suppose, the average number of fat sheep; and there would be very few cattle—hardly worth mentioning.
1013. Therefore, according to your estimate about 350,000 sheep and 5,000 cattle would probably be trucked at Brewarrina? Yes; 250,000 would be about the number of fat stock that would leave the district annually

- B. Broughton.** annually—I mean of the district stock—and they would be trucked here, I have no doubt, if they had the convenience.
- 18 Mar., 1898. 1014. In your opinion, a total of 350,000 sheep—that is, 100,000 from Queensland and 250,000 from the district—and 5,000 cattle would probably be trucked at Brewarrina? Yes.
1015. Can you tell me the number of holdings? The number of owners returning stock last year was 194.
1016. And for previous years? 225 for 1896, and 149 for 1895. Why the number was greater in 1896 was because a lot of teams were returned, but this year the owners have not returned them.
1017. The numbers you are giving us include the returns by carriers? Last year especially. The 225 includes a lot of carriers, but this year they have not returned.
1018. You cannot distinguish, I suppose, between stock owned by carriers, and those on the settled holdings of the district? I can give you the sheep owners for last year.
1019. If you can give the sheep owners that will be a better guide than if you include the carriers? 110 sheep owners.
1020. And the previous year? 104.
1021. And the year before that? Ninety-eight.
1022. So there has been an increase during the years 1896 and 1897? Yes. There are actually more owners than that, because in the case of running stock together, one man returns the lot—the stock are not divided.
1023. There are more owners now than there were four years ago? Yes, because they have divided the country into a lot of paddocks.
1024. Can you say from observation that there has been any increase in the area of land put under cultivation in your district? A slight increase, but only for growing bush hay.
1025. For station use? Yes; wheat and oaten hay for station use.
1026. Has the increase in the number of sheep to which you have referred occurred in connection with the smaller or the larger holdings? Amongst the smaller owners.

Andrew David Kerrigan, manager, E. Rich & Co. (Ltd.), Brewarrina, sworn, and further examined:—

- A. D. Kerrigan.
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1027. *Chairman.*] You were asked yesterday to prepare a list giving the sheep-owners not included in the return furnished by Mr. Harper—have you prepared it? Yes.
1028. Have you all the totals and the list before you? I have.
1029. Will you give the number of stations omitted by Mr. Harper, the number of sheep carried, and the estimated wool returns? I make 99 stations and small holdings left out by Mr. Harper, giving a total of about 10,500 bales—that would be about 1,600 tons.
1030. You heard the evidence given by Mr. Broughton, the stock inspector? Yes.
1031. You heard Mr. Broughton estimate the number of sheep within the area shown on the plan, on the 31st December of each of the years 1894, 1895, and 1896, giving an average of 1,250,000, and estimating that for the year through the average might be taken as being 1,500,000, as there are more sheep in the cool months of the year than at the end of December, when the returns are prepared;—do you agree with Mr. Broughton as to that, with your knowledge of the district? Yes; I think that that is about right.
1032. Assuming the average to be 1,500,000 sheep, how many bales of wool to the thousand sheep do you usually estimate? I generally estimate about fifteen bales to the thousand sheep.*
1033. For the whole of the area with which we have been dealing that would give about 22,500 bales? Yes.
1034. What is the total number of bales that you say would reach the proposed railway from Byrock to Brewarrina, according to the lists prepared by Mr. Jameson and yourself? About 30,000.
1035. There would be a discrepancy of some 8,000 or 9,000? Yes.
1036. Can you explain how the difference arises? Yes; there are Kinglebilla, Bundalear, Fernlee, Coomburah, Mulga Downs, and Toulby. Those places would average about 4,100 bales altogether. They do not come to Brewarrina at all now, with the exception, I think, that some wool from Kinglebilla came here last year. Some of the wool from those stations goes to the Queensland railways, and some of it sometimes goes to Bourke.
1037. Why do you think that that wool would reach the Byrock-Brewarrina railway? For the simple reason that the distance would be shorter. The owners would have to send their wool by road only 60, 70, or 80 miles instead of from 150 to 160 miles the other way.
1038. It would be more to the owners' advantage to send to Brewarrina than it is at the present time? Yes.
1039. What is the total number of bales? About 4,100.
1040. How many tons? About 600.
1041. You are still 4,000 or 5,000 bales short? Well, in the area that Mr. Broughton has given I do not think he includes places like Llanillo, Gingie, and others. They are out of Mr. Broughton's district altogether.
1042. Are they shown on the map to which reference has so frequently been made? They are not included within the red lines.
1043. Nor do they appear in the list furnished by Mr. Harper? Yes; they appear in Mr. Harper's list.
1044. But not in the list furnished by Mr. Jameson—is that so? I cannot say; but I should say that they were there.
1045. Then if we add those now we shall be estimating them twice? You see that Mr. Broughton has not calculated them at all in his sheep district, because they are not in his sheep district.
1046. Mr. Broughton's estimate is for the holdings within the red lines;—are these within the red lines? No, they are outside them; but the wool would go to the proposed railway.
1047. What additional number of bales and what weight might be expected from the stations that you have mentioned? About 6,000 bales, or 1,400 tons.
1048. That is your explanation of the apparent discrepancy between your estimate and the estimate of Mr. Broughton? Yes.
1049. What would be the weight approximately of 22,500 bales? 3,750 tons.
1050. That is estimating 6 bales to the ton? Yes.
- 1051.

NOTE (on revision):—I have no experience of what sheep cut, or what number of bales will cut per thousand. The difference between my estimate and that of Mr. Jameson arises through my only estimating 15 bales to the thousand, whereas those with more experience estimate 18 or 19 bales per thousand.

1051. Speaking from your own experience and knowledge, what do you think would be a fair allowance in estimating the average weight of the bales coming from this district? Between 3·1 and 3·2.
1052. How many bales to the ton would that be? About six.
1053. It has been estimated at $5\frac{1}{2}$ and $6\frac{2}{3}$;—what is your estimate? I generally give about 6, taking scoured wool and greasy wool together.
1054. So the wool from the area within the red lines shown on Mr. Sawers' map would, according to the returns just furnished by the Stock Inspector, give a total tonnage of from 3,500 to 3,700 tons—is that right? Yes.
1055. You observe that Mr. Harper's estimate is 3,400 tons? Yes.
1056. Well, inasmuch as Mr. Harper's attention has been directed always to the area embraced by those red lines his figures appear to be fairly accurate? Yes.
1057. Until this morning it has appeared from the local evidence that the anticipated tonnage might be fairly reckoned by adding about 5,000 tons to that? Yes.
1058. About 30,000 bales? Yes.
1059. And your explanation is that an additional 1,300 or 1,400 tons would come from stations outside the area to which attention has been directed up to the present time? Yes, that is my explanation.
1060. Therefore, Mr. Harper's estimate may be regarded as correct, and the difference in the estimated tonnage that would reach the proposed railway cannot be regarded as being likely to come from the area indicated by Mr. Sawers? I cannot say that.

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William Nicholas Willis, Esq., M.P., sworn, and examined:—

1061. *Chairman.*] I daresay you desire to make a statement before we put questions to you on the subject of the proposed railway from Byrock to Brewarrina; perhaps you will generally describe your electorate and the important places embraced within it? This proposal has been before various Governments of the country for a considerable number of years. I have had the honor of introducing it in the Assembly on several occasions, and I have also received promises from various Governments that the matter would be considered and sent on to the Public Works Committee for consideration and report. In fact, I had the most distinct assurance from Mr. Bruce Smith, of the late Parkes Administration, that the matter was worthy of consideration. However, with all our efforts we have now arrived simply at the investigation stage. I think that there can be little doubt that this line would be a paying one if it were constructed on a proper basis. When I say "on a proper basis," I mean that the estimate of £2,500 a mile should be reduced by at least £700 or £800 a mile. I would respectfully suggest that the time has arrived when the Committee, of which you gentlemen are Members, should put its foot down on the very heavy expenditure that is proposed by the officials for these small and what we call light lines of railway to open up various centres of the country. Whilst admitting that in Queensland the railway is of smaller gauge, and certainly of not so much stability as our own railways, I would point out to you that the Queensland Government are putting down 3 or 4 miles of railway for the same cost as we are putting down 1 mile in this Colony. I would specially draw your attention to the Charleville-Cunnamulla line which the Queensland Government are now constructing. The people who live in that remote portion of Queensland were in a state of semi-bankruptcy. They could not get their products to markets, nor could they get flour, tea, and sugar out to various stations except at very prohibitive rates. Sir Hugh Nelson formed a plan to put that railway through that country, and he called a lot of the lessees—myself amongst the number—together, and asked them if they would be prepared to pay a little more taxation if that railway did not pay. We all agreed. We paid something like $\frac{1}{2}$ d. an acre for the land, and we agreed to be taxed another farthing if the railway did not pay, or, if it did not pay then, another $\frac{1}{2}$ d., so that we might get facilities for sending our products to market. That railway is now an object-lesson that your Committee and Parliament generally might well take into consideration. 120 miles of railway have been made there at a cost of a little over £600 a mile, which will answer all the purposes for which it is required. It is an extremely light line, which will open up a vast area of country that has been practically dead or lying dormant. What I most vehemently suggest is, that your Committee should insist on the Government officials reducing the cost of this line—together with other lines that you are about to investigate—by reducing the weight and the carrying capacity of the line, so that we may get a light line of railway—light in every sense—that would open up this country and give the people who have been struggling here for years to my own knowledge—I myself struggling amongst them for a great number of years—a chance of getting their stock away in times of drought, and of obtaining the good things grown about Bathurst and Orange in that more favoured climate—eatables that have been thrown away, so to speak, given to the pigs, such as good potatoes and pumpkins. We cannot get them here, because the rates hitherto have been prohibitive. We want a light line of railway that will bring those products to our doors, and give us them cheaply. With all respect to you and the Government, I ask are we not entitled to some consideration, seeing that every available acre of land for hundreds of miles around here is under occupation, and bringing in a very high rental indeed to the Crown. Within the last few years the rents have been increased something like 50, 60, or 70 per cent. in and about Brewarrina. This is called the pastoral garden of New South Wales, and where we used to get land for 1d. an acre we have now to pay 3d., $3\frac{1}{2}$ d., $3\frac{3}{4}$ d., and on some of the back creeks as high as 4d. an acre. We have been taxed up to the very hilt, and we have had no expenditure of public money in this part of the country—no consideration. Government after Government has just treated us as aliens, and has not given us that consideration which I hope and trust your presence amongst us now will ensure that we shall get. Another point to be discussed in regard to this railway is, will this line end at Brewarrina? I maintain that for the benefit of the railway, the benefit of the Government, the benefit of this town, and the benefit of the whole body of taxpayers, who will have to pay for the construction of this railway, this line should go on and ultimately touch the Queensland border at Goodooga. It would not only open up all the country between here and Goodooga—most magnificent pastoral land—but it would also tap Queensland at a place where the trade of millions of acres would be drawn into New South Wales. It would tap what is known as the great St. George Basin—the country lying between Goodooga and St. George, some 2,000,000 or 3,000,000 acres of which has been thrown open for smaller settlement in 20,000-acre blocks. It has been taken up in nearly every case by New South Wales people. I think that there is a gentleman in the room now who has some land over the border there, and if the proposed railway from Byrock to Brewarrina should ultimately

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ultimately be extended to the border, those people having all their business obligations and ties in this country, this railway will draw all the St. George Basin trade into New South Wales. That is a phase of the question I have put to some of the officials, and I think it has been favourably received.

1062. In putting that before the railway officials, did you take into consideration the Queensland export duty of £2 a ton on wool? Yes. But the time is not far distant when the Queensland Government will have to take that duty off, or it will be the duty of our Parliament to put a tax on the sheep coming into this country. It is an iniquitous thing that a man living on the border should be penalised in having to pay £2 per ton on his wool because he sends it to a New South Wales railway; but that tax may be abrogated, for the Queenslanders themselves do not believe in it, and do not like it; in fact, it has been so obnoxious to them that the Queensland Government have found it necessary to give this blood-money to the local bodies to defray the cost of making their roads. The Queensland Government will not touch it themselves. If this proposed railway were extended to Goodooga, it would then be almost at those people's door; it would be so near to them that they would be glad even to pay the export duty of £2 in order to be able to send their wool along this line. I do not know the distance from Goodooga to St. George; but I know that the distance from Goodooga to Mitchell or Roma is about 350 miles. Our railway would, so to speak, be nearly at the door of that great basin of country of which I have spoken, and to go away from our railway in order to get on to one of their own railways those Queenslanders would have to go 350 miles, to get a connection with the Queensland Western line. Therefore, we would get the whole or nearly the whole of the traffic from St. George by having our railway at Goodooga.

1063. Will not the Queensland railway system approach very nearly to our border when the present Queensland railway policy is put into force? No. It might approach a little closer when the Cunnamulla line is constructed; but those people would have a great objection to go 200 miles north when they wanted to go south.

1064. The Cunnamulla line would be 200 miles north of Goodooga? Yes, and if they should want to go south they would have a very great objection to go 200 miles north to get to Sydney. The Cunnamulla line, if constructed, would have interfered with the proposed line from Barrington to Bourke which was thrown out. The Cunnamulla line would bring the Queensland railway system to within about 90 or 100 miles of that portion of the border near Barrington, therefore, if we had constructed the proposed line from Bourke to Barrington, our and the Queensland railways would have been within 100 miles of each other, and the Barrington line would have had no chance of paying, whereas this proposed railway which I suggest should go on to Goodooga, would tap what you may call the unexplored country—a country that has no railway facilities whatever. The people there have been struggling, as we have all been struggling here, to get railway communication; but there has been so much opposition and contention that if we go on to Goodooga with this railway, I am sure that many years will elapse before the Queensland Government attempts to compete with us. Another thing I would like to point out is that in connection with this proposed line to Brewarrina, we are opposed not by people who have any just claim to oppose us, but by people who are absolutely selfish in the matter, and whose interest it is to keep us in the back ground; but I think that there is a spirit of fair play in this country which will not allow others, who are absolutely interested, as the people of Bourke are, to make us a suburb of Bourke. I do not think that you will allow their influence to prevail. When the people of Bourke were trying to get their line of railway, we all put our shoulders to the wheel to help them; but now that we are struggling to get a light line here, we are simply told that we are to be a suburb of Bourke, and that Walgett is to be ditto.

1065. There is nothing before the Standing Committee that would indicate that the people of Bourke are in any way opposing this line? Well, the whole tendency of the evidence given by Mr. Harper, and by the other Government officials, is in that direction—that Bourke is to be the depôt, that the people of Bourke have their line, and that if we want to use a railway we must go to that line. I think you will admit that the whole of the evidence is in that direction.

1066. *Mr. O'Connor.*] Do you not think that it is a fortunate thing that Mr. Harper is not the highest authority on this subject, and has not the power of deciding this matter? I think it is a blessing that we have someone to overlook his statements.

1067. *Chairman.*] Our position is this: we have been appointed by the General Committee to inquire into the probability of the proposed line paying; one of the functions of the Committee is to ascertain whether the traffic on the proposed line will be sufficient to cover the working expenses, and also within a reasonable time, at any rate, pay interest on the cost of construction; therefore this is what you may call a complete inquiry into the prospects of the proposed line? Exactly so. I have broken new ground in order to show how additional revenue might be obtained if the proposed line were the first section of a railway to the border—if there were a proposition not to leave the terminus of the line here but to extend the line ultimately—perhaps in the course of some years—to the Queensland border.

1068. Clause 12 of the Principal Act provides:—

Where such work purports to be of a reproductive or revenue-producing character, the Committee shall have regard to the amount of revenue which such work may reasonably be expected to produce, and to the present and prospective value of such work

? The estimated cost of the proposed line should be reduced—the Committee, in my opinion, would do a public duty if they were to insist on the estimated cost being reduced—and if it were reduced to what it ought to be, viz., £1,500 or £1,600 a mile—double the amount which is expended in Queensland in railway construction, I have no hesitation in saying that this proposed railway would pay well, and confer a great boon on the public—in fact so convinced was I that the proposed railway, if properly constructed, would pay that I at one time had everything in preparation to get a private Bill passed into law to permit of the railway being built by private individuals. It was at that juncture that I obtained a promise from the Government that they would go on with it. Between Brewarrina and Byrock there are tens of thousands of acres of rich flats that would grow wheat. I expect you have had abundant evidence of that. Some time ago we saw a paragraph in the *Sydney Morning Herald* expressing astonishment that such splendid wheat had been grown near Bourke; but as a matter of fact that which was shown in the lobbies of the Assembly had been grown on Mr. Barton's holding, some 8 or 9 miles from this proposed railway. I myself have grown wheat on the Tarrion, and have cut for hay, and I have got from 13 cwt. to 2 tons to the acre. I have grown potatoes, onions, maize, pumpkins, and fruits. If you have your land properly cultivated any seed that you like to put into earth here, if you attend to it, and give it the necessary water, will grow well. But all those flats between Byrock and the Bogan, also those rich flats between the Bogan and the Tarrion, will

grow

grow wheat—the rainfall is sufficient to insure an abundant crop of wheat. The people, however, cannot go into that cultivation unless they have a railway.

1069. *Mr. Fegan.*] We have evidence that that land will grow 12 tons to the acre? I do not know anything about that, but I know that I grew from 13 cwt. to 2 tons to the acre. I remember the time when if anyone had said that wheat could be grown at Nyngan, Nevertire, and Narromine, he would have been apprehended for a lunatic; but now there are thousands of acres of wheat-land there. Mr. Mack has 1,800 or 1,900 acres under wheat there, and that land is similar to this. I do not say that the black clay land—that is land that becomes solid under the influence of the sun—will grow wheat except in a very favourable season; but the red loamy land between here and Byrock will every acre of it grow wheat in abundance, exactly the same as Narromine, or Trangie, or Nyngan. It is the same class of country, and has the same rainfall, and a few years ago it was despised the same as the land here is now. I remember the time when land in the Dubbo district was put up by auction at $\frac{1}{3}$ d., and tens of thousands of acres of it could not find an occupier; but Mr. Mack, with that energy which we all know he possesses, went into the matter, and he now has 1,800 or 1,900 acres under wheat, and it is paying him well. So would all the flats pay well between here and Byrock. You do not require any further evidence on that point than that given by Mr. O'Dwyer and Mr. Barton. Mr. Barton is not a Brewarrina man—his sympathies are not with us—he is a Bourke man, but he grows wheat in this district, and he took some down to the House, and everybody marvelled at it, and next day a paragraph appeared in the *Herald*, which no doubt you gentlemen saw, referring to the marvellous crop which, it was said, had been grown at Bourke, whereas it was grown some 8 or 9 miles off this proposed railway line.

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1070. *Mr. O'Connor.*] Do you think that this line would interfere with the Walgett line? No; it would not interfere in any way with it. This is a totally different district—it is differently supplied. The two lines would deal with altogether different portions of the country. Geographically speaking, the Walgett trade really belongs to the Northern Line. But up the river here as far as Boorooma, and also from here to Goodooga, and from there on the road to Barringum, all the trade belongs to the western railway system. The way to prove to you that it would do no harm is this: Whether the rate of carriage is high, or whether it is low, whether we have river carriage, or whether we have road carriage, no man is ever insane enough to send from here to Narrabri for flour, tea, or sugar, or stores of any sort, neither are the Walgett people insane enough to send to Byrock for their goods. The geographical positions of the two places are diametrically opposite to each other. The one place naturally belongs to the north, and the other to the west. They are both important centres; they are both valuable assets of the State. There are hundreds of thousands of acres of land that belong to the people, and if they be opened up and made more valuable by light lines of railway—not railways each costing as much as £2,500 a mile; then, if the railways do not pay, the Government can always tax the land by increasing the rental of the land so as to meet the expenses of those railways. The land is nearly all held under lease, and if the Government propose to build a railway to my door, and for the land I occupy I pay, say, for argument's sake, 1½d. per acre, and if they will do away with the road carriage, they are quite justified in saying, "This railway will not pay, and therefore we shall charge you 2d. per acre." Then I would simply say, "Give us the railway, and charge us 2d. an acre. We shall be glad to get it." These two railways would not be opposed to each other, because they would be in different districts, and be separate affairs altogether. This Brewarrina line would be a small branch of the Western railway, whereas the Walgett Line would be a branch of the Northern railway. The Walgett people trade northwards, and do all their business northwards, whereas we here trade and do all our business westwards.

1071. Have you considered the question of the locking of the river? I have, and at one time I was an advocate of the locking of the river. I became an advocate of it in the sense that a man will sometimes fly to drink to cure pain. I had been so long advocating the construction of a railway that in utter despair I rushed to the locking of the river, and I did advocate it very strongly talking to our present able Premier, but after mature consideration, and after further investigating the matter, and looking at the lock at Bourke, and watching the ravages that some of the floods made there, I came to the conclusion that the expenditure on the locking of the river would be money wasted, because there are so many rivulets and ana-branches. If you were to put a lock at Brewarrina, the first thing you would have to do would be to block up the mouth of the Cato, and directly you did that the vested rights and interests of the people on the Cato would come in. If you were to cut off the water from any man's block of land, and, so to speak, take away his means of living, he could obtain a certain amount of damages against you, unless an indemnifying bill were passed by Parliament, and I do not think that in this enlightened age such a bill would be passed. Then, in going on further, the supply of water to the Tarrion would have to be cut off; and all ana-branches supplying the settlers to the right and to the left have to be taken into consideration, and if you wanted to confine the water in one channel it would end in a fiasco, and the loss of hundreds and thousands of pounds to the people, though personally it would suit me very well; but I am not considering my personal interests just at present, and I do say that it would end in disaster, because all this black land when a flood comes over it becomes a sort of sugary substance, and after a flood you will find little rivulets in places where none existed before, and if you block up one channel, in a few years' time the water will form another for itself somewhere else. However, it is one of those serious undertakings which I do not think the country is prepared to go into at present. But there is some difference in locking the river between Bourke and Wilcannia, because the river there has deeper banks, and is more confined within its banks, and the channel is deeper. That is a matter which might receive consideration. I do not know much about it; but here I have watched the process very keenly, and I have found that what I say is a fact.

1072. *Chairman.*] You appear to be of opinion that much of the Queensland traffic would come into the Byrock-Brewarrina railway if that railway were extended in the direction of Goodooga, and that extension you would extremely advocate? Yes; I would.

1073. What would be the effect of a railway starting from a point between Narrabri and Moree carried along the north bank of the Namoi, and between Collarendabri and Walgett and extended to a point between Angledool and the Barwon? It would be a selfish line, which would cause a lot of irritation to Queensland, and do very little good to our own people. It would be a line that would be built at the bidding and the will of the Railway Commissioners; and I think that it will be a sorry day for New South Wales when we allow the Railway Commissioners to dictate the railway policy of this country.

1074. But, leaving that view of the question out of consideration for the present, what effect would that line

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line have on the earnings of the line suggested by you to be constructed from Brewarrina to Goodooga, as an extension of the proposed line from Byrock to Brewarrina? If the line that I suggest should go from Brewarrina to Goodooga were built, it would certainly obtain the whole of the Queensland trade that I have mentioned.

1075. I want to know what effect the construction of a line from the Narrabri-Moree line to a point between Angledool and the Barwon would have on the earnings of the proposed line suggested by you from Brewarrina to Goodooga? It would simply take the place of the line from Brewarrina to Goodooga.

1076. What effect would it have on a line between Byrock and Brewarrina, assuming that Brewarrina would be the terminus? It would certainly be detrimental to the extent that it would curtail our trade, and would only allow us to trade to or about the border, whereas if we were left alone, and an opposition line were not run we would get the whole of that Queensland Basin trade.

1077. Would it in your opinion interfere with the traffic that would reach the Byrock-Brewarrina railway between Brewarrina and the border? No; certainly not.

1078. It is represented to the Committee that the whole of the area between those red lines on Mr. Sawers' map would be served by a railway from Byrock to Brewarrina; do you think that any of the traffic from that area would be diverted in the event of a railway being constructed from the Narrabri-Moree line and extending in the direction I have mentioned, viz., to a point between Angledool and the Barwon? Most certainly if that line were constructed it would interfere with the traffic of this line, but not very much. That suggested line certainly would not take the Queensland traffic that I hope to see come in from Goodooga to Brewarrina. It would take a lot of trade about Comborah Springs, Grawan, Angledool, and Narran Lakes, and of course all the intermediate trade. It might also take the Narran and Booroma trade, but if that suggested line were constructed instead of a line going to Collarendabri and Angledool, I may say that as against what Brewarrina would lose through that line going near Comborah Springs we would certainly gain a good deal of the Queensland traffic that would not go into that line.

1079. *Mr. O'Connor.*] And in view of the federation of the colonies we may say that the Queensland export duty of £2 a ton would disappear? Yes, I think so, because I think that Queensland would come into the federation.

1080. *Chairman.*] If you will look at the map of the Colony you will see that at the present time there are under the consideration of the Parliamentary Standing Committee on Public Works proposals for the construction of railways from Warren to Coonamble, from Narrabri to Pilliga, with possibly an extension to Walgett, and from Woolabra to Collarendabri,—would any of those railways, if constructed, affect the traffic which it is estimated would come to the Byrock-Brewarrina railway? I have no hesitation in affirming that they would not, if constructed to-morrow, affect one penny of the traffic from the area indicated by the "red lines" on Mr. Sawers' map. On the other hand, I think that that area ought to have a big addition made to it.

1081. Touching your statement as to the cost of the proposed railway, have you seen the details of the estimated cost of £2,500 a mile? No; I just saw that it was £2,500. However, I have the details now before me.

1082. Can you suggest in what direction the cost of the proposed railway could be reduced, because no doubt it is extremely important that this line, if constructed at all, should be a cheap line, having regard to the nature of the traffic and the fact that the heaviest portion of it will be for a short period of a year only? I know very little about the construction of these railways, I say at once, but on broad general principles I assert that the officers should be made to reduce the cost of the lines by using lighter material in their construction. They should call for tenders in this instance for a railway from Byrock to Brewarrina to cost, say, from £1,500 to £1,600 a mile. Not being an engineer, and knowing very little about railways, I cannot say how these amounts in the estimate for this line should be reduced; it would be simply casting ridicule on my evidence for me to do that. But there are some amounts here that seem to me to be outrageously high, for instance, station works £5,105 10s., and station buildings 5£,365, making for those two items about £10,500. Let us have small stations or platforms—something cheap. We do not want palaces.

1083. I suppose you are aware that the cheapest railways that have been constructed up to the present time, in districts which lent themselves more readily than this district will to very cheap railway construction, we have not been able to make for less than £2,000 a mile? My reply is that it is a calamity. Of course the officers will stick to each other from what I see of them; but I think that that is a calamity. I think that now is the time for the Committee to speak out, and to close their able labours by demanding that something shall be done to give the people really light lines of railway. The people and the press of the country are in favour of such lines, but the officials are against them.

1084. All the branch lines have been of cheaper construction than the trunk lines, and ballast has been dispensed with wherever it was possible to dispense with it, and regarding this proposed railway as a branch line the Departmental evidence fixes the average cost at about £2,500 a mile; but if it could be shown that the line could be constructed for £1,500 or £1,600 a mile, that might make a very considerable difference in the view the Committee may take of it? I will undertake to go into the matter, and get some evidence, and to address a letter to you, giving my views on the subject.

1085. Could you place that evidence before the general Committee in Sydney? Yes, with pleasure. There is another item—freight, £11,885; I do not know why the officials charge us with that amount for carriage.

1086. The Construction Department has to pay the Running Department? That is only "robbing Peter to pay Paul."

1087. But in the returns of the Railway Commissioners giving 3½ per cent. on the total cost of construction, these figures are estimated as part of the earnings? They had all this fight over the railway to Cobar, but that line is paying, and I think paying pretty well. It is a marvel to me that a line constructed so expensively should pay.

1088. That, in a great measure, is attributable to the activity of the copper-mine? Yes, and the gold mines.

1089. Is there anything else you would like to place before the Sectional Committee? I understand that Mr. Harper has said—I have only been told this; I have not seen the evidence—that the river freight is 12s. a ton.

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1090. No, that is not the case; it is in evidence that the freight has been as low as 12s. 6d. a ton, but that is the evidence of one witness only, whereas the evidence of many witnesses, I think, confirms the evidence received in Sydney that the minimum charge for freight is about 20s., and the actual cost about 22s. 6d., including the land cartage? I have been here for some years, and I never knew it to be 12s. 6d. I think that the lowest which I ever paid or knew to be paid was 17s. 6d., but we have more times paid 22s. 6d., 25s., 30s., 35s., and even up to £2 when the steamers got into the hands of a "ring." It was 17s. 6d. only when steamers were cutting each other. For road carriage I always pay 25s. to Byrock from my place on the Tarrion, and that is little enough for the work which the unfortunate men have to do.

1091. Some evidence has been given this morning as to the number of bales to a ton and the average number of fleeces to a bale;—can you say from your own experience about how many fleeces go to the bale, and how many bales to the ton? I should say an average of seventy-five fleeces to the bale, which ought to average five and a half bales to the ton.

1092. Have you heard Mr. Kerrigan's estimate of about fifteen bales to 1,000 sheep? Mr. Kerrigan is a better judge than I am, for he has had more handling of wool; he has handled thousands of bales, whereas I have handled only the wool off my own sheep, and sometimes I have very good sheep, and at other times very bad. Sometimes you have a drought, and are overstocked, and that would reduce the amount of wool, but right through I think my sheep cut about fourteen bales to the 1,000, greasy wool, and about eleven and a half to twelve scoured.

1093. Then you would be disposed to accept Mr. Kerrigan's estimate of fifteen bales to the 1,000 sheep as a very fair estimate? I think so.

1094. Have you had any experience in the training of live stock from this district? I send my fat stock through to Byrock, and there is a good deal of fat stock that goes from this country, but ten times the amount would go were it not for the track between here and Byrock. No matter how prime your stock may be when they come off these beautiful, sweet plains here—no matter how prime the fat stock may be when they start—if they have to go over the hard country with kangaroo grass, and occasionally a bit of mulga, and have to lie in camp all night without water—for there is only one watering-place between Byrock and Brewarrina—they waste; and by the time they get to Byrock they have depreciated in value to the amount of nearly 1s. a head. These are all salt-bush plains, with edible scrub and blue grass and Mitchell grass, and when they come off that sort of plum pudding, and you put them on to hard, stale bread, so to speak, in going across to Byrock, they will not eat it. They sulk and waste. They do not like the water at the Byrock tank, at the other end of the town, because refuse from the town goes into it, and they will not drink it. They go sulkily into the trucks, and when they reach Homebush they are more like hunted devils than sheep. That would be all obviated if we had a railway from Brewarrina to Byrock. People now say, "What is the use of sending these wethers to Homebush? I will sell them on the station." They are sold on the station, and afterwards they are driven to Riverstone, perhaps in a mob of 10,000, and the railway is done out of the freight. A butcher buys 2,000 here, 1,500 there, and 1,800 somewhere else, and he simply drives them away, and the railway is done out of the freight, and the country loses so much.

1095. Mr. Harper, basing his estimate on the actual figures supplied by the station-masters at Byrock and Bourke, has ascertained that the average number sent by rail from those stations is 500 trucks a year, and he has in his estimate given credit for 1,000 trucks to the possible earnings of the proposed railway;—are you of opinion that Mr. Harper's estimate is a fairly liberal one? I think that the number is very much understated. I have no hesitation in saying that; but if it were liberal and correct, which I doubt, I say that it does not touch the case at all, for the reasons I have already advanced. People will not run their neck into ruin, so to speak, by sending their stock over here to face that dry track.

1096. I am afraid you did not catch the drift of what I asked you;—Mr. Harper says that at the present time the traffic in fat stock may be taken as averaging 500 trucks a year, and in his estimate of the earnings of the proposed railway from Byrock to Brewarrina he has given credit for 1,000 trucks, and I ask you do you think that would be a sufficiently liberal estimate in the event of the proposed railway being constructed? No, I do not.

1097. What are your reasons for differing from Mr. Harper? I think there is a good deal more fat stock trucked. I think that I can show by my own books that I sent over 100 trucks myself last year, and I am only a small selector compared with the big stations. Of course, if Mr. Harper has the figures, I cannot say they are incorrect. He ought to know; but I would beg of the Committee to call for a return of all the stock trucked at Byrock and Bourke, and of the names of the people who sent them. Then you could come to a proper understanding as to what should go to the credit or the debit of the place; but even that does not touch the question, which is: if this railway were constructed would that traffic increase. I say most unhesitatingly that it would increase tenfold if the proposed railway were constructed, because we would be able to take the stock off the plains and put them into trucks without delay, and we would be able to compete with Bathurst or any part of the country where the people have plenty of lucerne. Butchers would be able to obtain sheep fat and unwasted fresh off these plains, and if the sheep could be sent fresh off these plains into the market they would fetch from 1s. to 1s. 6d. a head more.

1098. We have the evidence of the Inspector of Stock that by the travelling stock routes through this district, and from the district within the boundaries shown on Mr. Sawers' map, altogether about 350,000 fat sheep are sent annually to market;—what proportion of that number do you think would reach the Byrock-Brewarrina railway? According to Mr. Sawers' map, I think that nine-tenths of that number would reach the railway, because people are only too glad to get railways and to pay high freights for their stock—for they are outrageously high—when they can simply pop them off the good soil into the trucks, and send them away fresh.

1099. Then, in your opinion, about 300,000 out of these 350,000 would be trucked at Brewarrina, or between Brewarrina and Bourke? I think so.

1100. About how many trucks of fat stock would that represent? 3,150 trucks.

1101. Therefore, on the assumption that a large proportion of the fat stock travelling through the district would reach the Byrock-Brewarrina line, you cannot regard Mr. Harper's estimate as being other than very much short of what the actual traffic would be? I say that it is very incorrect and very hostile. Another point is that the moment the proposed railway has been constructed—I can assure the Committee

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and those who have to do with the railway—meat-works and a boiling-down will be established here, and all the traffic that would necessarily result from such an undertaking as that would be added to the railway. The skeleton of a prospectus has already been drawn up, and some of the largest holders about here are on the eve of combining together for the establishment of a meat-works and a boiling-down, so as to utilise their surplus stock in that way. That will bring a tremendous lot of the Queensland cattle here to be treated, for the road is much better from the Queensland Border to Brewarrina than from the Queensland Border to Bourke. If you go from the Queensland Border to Bourke you have to pass over sandhills, scrub lands, and barren waste lands, and you have to pay at every stage nearly what people consider a very high rate for water for your stock. In a great many instances the cattle especially will not drink the water out of the troughs, and there are all sorts of difficulties in getting to Bourke which would all be obviated if the stock came to Brewarrina, because they would come through good country, with creeks and ana-branches of the rivers, and have plenty of good water and grass all along. The stock roads this way are much better than they are the other way. There is the Barwon, the Cato, the Bokhara, the Birie, the Culgoa, and the Burban. All these watercourses intersect the land between the Queensland Border and Brewarrina, and they offer every facility along these stock routes for people to bring their stock to Brewarrina in good condition.

1102. Greater facilities than are offered by any other stock routes? Yes. This is really the highway to Queensland. All those bridges that have been made were made with the object of offering every possible facility to constitute this the highway to Queensland. Our geographical position proclaims us to be the central depôt in New South Wales for all the trade that comes from Queensland, and if the proposed railway be constructed meat-works will be established here, and also fellmongery and scouring works, the same as at Nyngan and Bourke, and that will help the railway very considerably. On behalf of my constituents I wish, in the most public way, to thank you gentlemen of the Committee for the very patient, very fair, and very proper hearing that you have given to the evidence adduced in connection with this proposed railway. We are all quite conscious of the fact that our case has been fairly and fully investigated, and whether we win or lose we are quite conscious that we have had a fair trial.

1103. *Mr. Fegan.*] In regard to the former part of your evidence in relation to a reduction of the estimated cost, you are still of the opinion that, even if you cannot persuade the officials to make a lower estimate, the proposed railway will pay even on the present estimate of £2,500 a mile? I am. I think it will pay working expenses, but not pay so well as it otherwise would. Every day the country is being opened up and put to better use. The small selectors are ringbarking and improving their holdings and growing more wool, and I have no hesitation in saying that the proposed railway would pay, but, of course, not nearly so well as it would pay if the cost were reduced, and I strongly advocate a reduction of the cost of construction not only as regards this line but as a matter of general policy. We have heard a great deal about these light lines of railway, but they are very much like certain bridges we have heard so much about—we never get them.

1104. I think that £2,500 a mile is a big come down from the former cost? Yes; but I think there is room yet to come down more, and I believe that with your forward policy you agree with me.

Colin Campbell Fraser, manager, Weilmoringle Station, near Brewarrina, sworn, and examined:—

C. C. Fraser. 1105. *Chairman.*] Are you a pastoralist? I am manager of Weilmoringle Station.

1106. How far from Brewarrina? 65 miles.

1107. In what direction? On the Culgoa.

1108. North of the Barwon? Yes.

1109. *Mr. O'Connor.*] Would you kindly, in your own way, tell the Committee your idea as to the expediency of constructing the proposed railway from Byrock to Brewarrina? I think it would benefit the district materially, produce greater settlement, enhance the value of property throughout the district, and be of great advantage to the Colony to have a railway from Byrock to Brewarrina. I have had twenty-two years' experience in the district, and I find the sheep to average from 7 lb. to 7½ lb. of greasy wool. I was manager of Milroy Station for seven years. That is one of the largest stations in the district. I was afterwards managing Gnomery Station, and I am now managing Weilmoringle, on the Culgoa. In times of drought I have found that the losses of stock have been tremendous through the want of means of exit, for thousands of stock would have been saved if there had been means of getting them out of the district. I have seen them perishing in tens of thousands, whereas, if there had been a railway in the district, they could have been taken away to where there was grass and water. When I was managing Milroy we had wool lying for eighteen months on the station, we not being able to get it away, there being no grass between here and Dubbo, where the terminus of the railway then was, and no river communication with Adelaide. Of course, the wool was depreciated in value though being pressed and lying in the shed for such a long time. I do not agree with the statement of the last witness as to the number of bales to the 1,000 sheep. I say there are about eighteen bales to the 1,000 sheep, that is 7¼ lb. to the sheep. Allowing each bale to weigh 400 lb. on the average, that gives eighteen bales to the 1,000.

1110. Where do you send your fat stock and wool to at the present time? To Sydney, *via* Bourke. The distance from my station to Bourke is 110 miles.

1111. What do you pay a ton for the carriage of the wool? £4 to Bourke.

1112. And from Bourke to Sydney? About £4; about £8 a ton altogether from my station to Sydney.

1113. Supposing that there were a railway between Byrock and Brewarrina, what would it cost you to send your wool to Brewarrina? I think I could get the wool to Brewarrina for £2 10s. a ton. I may state that much of the country out back is by ringbarking being improved from 10-acre country to about 4-acre country, and, of course, all that back country in a few years will carry double the stock it does now.

1114. How many bales do you send? The last two years I have not sent many, because we had a big drought, and a lot of my sheep had to be sent to Queensland for grass, and they got home again only three months ago.

1115. What is the extent of your holding? 440,000 acres.

1116. How many sheep do you carry? Between 50,000 and 60,000 are on the station now, counting some I bought lately.

1117. Any cattle? Between 200 and 300.

1118. Is any portion of your land fit for agriculture? Yes. We irrigate with artesian water. We have about 50 acres under crop this year; we are putting it in now. Last year we had 40, and the year before that 33. In 1896 we grew 3 tons of wheat to the acre. The wheat stood up as high as my forehead, on the average, right through the field—that is about 6 feet high. It came to a splendid head, and the same thing occurred last November and December. C. C. Fraser.
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1119. How many bushels to the acre? We did not test it. We kept only a little for seed, just to sow the field again, and we cut the rest for feed. The crop last year was not quite so high, but it was a splendid crop of wheat. Almost everything grows on that soil. We tried this year amber cane, and cow peas, and maize, the same as the Pera bore. The maize is now standing in the field with splendid well-filled cobs.
1120. Do you grow any fruit? No, except just for the station.
1121. What was your wool clip last year? 400 bales.
1122. How many sheep did you shear altogether? 35,000. The run is only half stocked now.
1123. *Mr. Fegan.*] How are your runs watered? By the Culgoa, the Birie, the Burban, and by artesian wells No. 1 and No. 2 bores, Weilmoringle.
1124. That is in this Colony? Yes. One bore gives 1,700,000 gallons a day, where the irrigation farm is, and the other bore is giving something under 50,000 gallons a day. By the use of these bores we are utilising the back country not used before—the ringbarked country.
1125. You are sure of the figures you have given the Committee—that you shored 35,000 sheep last year, and you got 400 bales of wool? Yes, as near as I can remember.
1126. That is less than twelve? It was that year, but the clip was a very poor one.
1127. *Chairman.*] Do you not think that Mr. Kerrigan and Mr. Willis are more likely to be right than you are when they give an average of fifteen? I have had more experience than they have had.
1128. But you said the average would be eighteen, and it worked out less than twelve? Yes, that year; but other years nearer twenty.
1129. Do you know exactly the number you shored last year, and the exact number of bales? I have no information with me—no books.
1130. Upon reflection, do you feel disposed to reduce your estimate of eighteen bales per 1,000 for the whole district? Not under 7 lb. to the sheep. About 400 lb. is about the average to the bale, and that would be about $5\frac{1}{2}$ bales to the ton. The reason our clip was so small last year was that all the Borrara sheep lost their belly wool through its being torn off by the grass seed.

John Watson, Gnomery Station, Brewarrina, sworn, and examined:—

1131. *Mr. Fegan.*] What are you? Manager for Dalgety & Co., Gnomery Station. J. Watson.
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1132. How many miles from here? Seventy.
1133. In what direction? North from here—close to Goodooga.
1134. What is the area? 101,000 acres.
1135. What of? It is all leasehold, except about 1,000 acres.
1136. What is that? Freehold.
1137. When does the lease expire? It is in the Western Division, and it will expire in 1918.
1138. You have been in the Court all this week, have you not? Yes; off and on.
1139. How many sheep have you running on the 101,000 acres? Only about 30,000 sheep, and 1,000 head of cattle.
1140. How many sheep did you shear last year? We shored only about 22,000 or 23,000.
1141. What was the result? A fair clip of wool. We had, as near as I can remember, 350 bales of greasy wool.
1142. Have you taken the average of your clip during any term? Yes.
1143. What have you got? I consider that we get fully fifteen bales to the thousand of greasy wool, besides two and a half or three bales of scoured.
1144. Scoured wool is much lighter? Yes, of course.
1145. If not scoured, the wool would be about twenty bales to the thousand sheep? Yes; at any rate fully eighteen or nineteen.
1146. What is the largest number of sheep you have had on your holding? Up to 57,000.
1147. You have been managing it for a long time I suppose? Five years. I owned a place about 20 miles from here myself for eleven years.
1148. How is your land watered? By the Birie—it has a double frontage to the Birie—and by tanks.
1149. Have you ever tried sinking for water? No; we have plenty of water without it.
1150. If you have plenty of water, how is it that you run so few sheep? I have said that we have run up to 57,000. I think that is a fair average—2 acres to a sheep.
1151. But we have heard of some places where they run a sheep to the acre? We could do it now for a short time, but it would be risky. It is impossible to get sheep at present at fair prices.
1152. How far would you be from the proposed railway if it were constructed? The distance is 70 miles from our homestead to Brewarrina.
1153. Therefore Brewarrina would be the station you would load at? Most certainly.
1154. What is the average tonnage of the stores that you use in a year? About 10 tons.
1155. From where do you get them? From Rich & Co., of Bourke, either by team or by boat.
1156. You are satisfied with doing business with Rich & Co.? Yes; I have never done it with anybody else since I have been at Gnomery, except for small lines.
1157. What is your rainfall? Eighteen and a half inches on the average.
1158. How many inches did you have last year? Something like 11 or 12, but the rain fell at the wrong time.
1159. I suppose that your holding is used only for pastoral purposes? Yes.
1160. The company has never tried it for agriculture yet? No.
1161. Not only in this district, but also in other districts where they have large pastoral holdings? I have never tried agriculture at Gnomery.
1162. The company is satisfied with pastoral pursuits? Yes; the country is good enough for that—we make it pay well enough in good seasons.

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1163. Do you send your wool by road or by stream? Rich & Co. have contracted for the last two years to deliver it in Bourke.
1164. At what price? Last year I think £3, and the year before £4. The wool was mostly sent by teams. It was optional whether they took it by team or by stream. The contract was that they should remove our wool to Bourke for £3 a ton.
1165. In the event of the proposed railway from Byrock to Brewarrina being constructed, would that induce you to put more stock on? Most certainly it would. It would induce us to fatten more stock, because we should have a better chance of getting them away.
1166. How long does it take a mob of sheep or cattle to go down to Brewarrina from your place? About ten days.
1167. Is there plenty of grass on the way? There is always a very good track.
1168. Even in dry weather? Yes; we can always get a bit of grass along there, but from here to Byrock is the great drawback.
1169. There is no doubt that if there were a railway connecting Brewarrina with Byrock, Brewarrina would be the place to which you would come? Most undoubtedly.
1170. Therefore, from you we can look for a larger number of fat stock going to market than at the present time? Yes.
1171. Where do you send your fat stock to now? We sell them sometimes on the station. Two years ago we had 20,000 fat sheep, and three different people from Sydney came up to inspect them on the ground, and agreed to take them on the condition that we would deliver them at Byrock, but we found the road so bad from Brewarrina to Byrock that we would not take the risk, therefore we had to send them down ourselves. We sent two scrub-cutters with each mob. We had to get them off somehow, and we lost fully 2s. a head. We should have made 2s. more on each of those sheep if we had had a railway here.
1172. Owing to circumstances over which you had no control which prevented you from landing the sheep in fair condition at Byrock, and thus complying with the conditions, what was the loss to you? The loss was between 1s. 6d. and 2s. a head.
1173. That would be a great consideration? Yes.
1174. Then you could manage to pay 15s. 6d. a truck from Brewarrina to Byrock? Yes. Those sheep were approved of at 6s. 6d., and we did not get 5s. after all the expenses in Sydney were paid.
1175. Have you tried to grow hay on your land? No; we have never required it.

Richard Randolph Machattie, stock and station agent, Brewarrina, sworn, and examined:—

- R. R.
Machattie.
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1176. *Chairman.*] How many years have you been in this district? I have been here since 1883, but I have been connected with the district altogether since 1862.
1177. I understand that you desire to make a statement in reference to the proposed railway from Byrock to Brewarrina? I do. I first of all desire to give evidence to prove that the area of country included in Mr. Sawers' plan is properly credited to the proposed railway. You have had evidence from Mr. Brown, of Brigalow, whose holding is on the extreme south-east corner of Mr. Sawers' plan, and he told you that he thought it was desirable that a railway should be constructed from Byrock to Brewarrina. Following the "red" line in a northerly direction, you had the evidence of Mr. Dickson, of Yarrawin, who spoke in favourable terms of the proposed line. Going from there a little more north, I have in my possession a letter from Mr. E. K. Mackenzie, the manager of Boorooma, in which he says that he is in favour of a railway from Byrock to Brewarrina, that he would send about 1,400 bales of wool and 10,000 fat sheep, and that his return goods are between 50 and 75 tons per annum; that he would be willing to pay 10s. per ton railway carriage for the certainty of having railway communication, and that he would regularly send his cast fat stock by the railway. Mr. Simpson, across the Narran, writes the same way. Then on the north-east corner of Mr. Sawers' plan there is Mr. W. R. Moore, who owns a place called "Mogala." I may mention, for the information of the Committee, that "Mogala" is between Goodooga and Angledool; and Mr. Moore distinctly says:—
- In replying to your circular *re* the Byrock and Brewarrina railway, I would state I send 300 bales annually to Sydney. My return goods amount to about 20 tons; 5,000 fats annually; would willingly pay 12s. 6d. additional freight per ton for railway; Brewarrina, with the railway, is a most suitable site for freezing and meat works.
- You have had the evidence of Mr. Bacon in Sydney, and just now you had the evidence of Mr. Colin Fraser, who manages "Weilmoringle," near the north-west corner of this area. You have in Mr. Harper's list Milroy Station, which is on the western boundary going south. Going due south, you have had Mr. Barton, of Salisbury, and you have had Mr. Huggins and Mr. O'Dwyer, and then on the extreme south-west corner you have had Mr. Lindsay. So I think I have clearly shown that the area which Mr. Sawers says belongs to Brewarrina has been proved by the evidence to belong to Brewarrina.
1178. Mr. Sawers' contention as to the area that would be served by the railway has not been challenged? In that area I may mention that there are actually 4,800,000 acres. That was the accepted area as given before you in Sydney.
1179. That is not consistent with the evidence to-day? That is the evidence given in Sydney. At all events, that is the area computed in the Survey Office, Sydney, for me. I paid the chief draftsman to have it computed for me.
1180. You heard the evidence of Mr. Broughton that the area was about $2\frac{1}{2}$ miles? But Mr. Broughton is the sheep inspector, and he distinctly went in for a sort of give-and-take. I can depend on my figures. They were computed by instruction of the chief draftsman in the Survey Office in Sydney, and they come to 4,800,000 acres as being in Mr. Sawers' area. I have taken the trouble to ascertain the capability of our district, which is 3 acres to a sheep, and by working that out carefully I find that it will carry 1,600,000 sheep.
1181. You agree with the Stock Inspector? I did not know that, but I have been told since I worked it out that he came very close to my statement.
1182. Mr. Broughton's evidence is that a fair average, taking several years, and estimating for the whole area, would be 1,500,000? I am glad he is so close to me. In making the computation I have reckoned 7 lb. per sheep, which I know of my own knowledge, from having been engaged here for ten years in pastoral pursuits, is a correct and honest estimate of the cutting capability of the sheep in this district. No man would dream of keeping an ordinary breeding ewe that did not cut 5 lb. of wool. Our ordinary hoggets

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hoggets cut 9 lb. of wool, and wethers as high as 12 lb., and it is correct to say 18 lb. or even 19 lb. of greasy wool; but the skirts and also the bellies, on account of the long carriage, are generally hand-washed, or are sent to small scourers in the district, and I am competent to state that the loss in this district, taken on the average, is nearly 50 per cent., so it is perfectly clear that I am right when I state that there are 18 bales to 1,000 sheep.

1183. *Mr. Fegan.*] How do you mean a loss of 50 per cent.? The portions washed here are the bellies, the locks, and the bags, which are always full of dirt, urine, &c., and they are very heavy. There are, perhaps, as much as 6 cwt. of bags in a bale, but the ordinary reduction from 100 lb. for locks, bellies, &c., amounts to about 50 lb., so that makes my remarks correct. Putting the wool at 7 lb. per sheep, which I consider a low estimate. I find that my figures come to exactly 28,571 bales.

1184. Taking 7 lb. to the sheep, that would be 5,000 tons? Yes. Put it at 3 cwt. and 2 qr., and I vouch for the fact that my figures, 28,571, are perfectly accurate.

1185. That only gives something like 1,600 bales over Mr. Harper's estimate? I am not drawing any comparisons. I say that there are 28,571 bales. I want to let you clearly understand that this estimate is for the area within those red lines. I also want to point out that at Question 1231 and 1232 Mr. Harper said the total number of bales received at Byrock and Bourke was 27,702, and that those figures included wool from the Walgett district; but I want to add to my 28,000 bales 6,000 bales which came by steamer from the Walgett district, as per Mr. Jameson's return, and I wish also to add the Border wool that comes from Kinglebilla, Comburah, Mulga Downs, and Bundlear—altogether, 1,000 bales. I claim that, in addition to the 28,571 bales which we actually own, and which cannot be disputed in any possible way, we have the right to control 7,000 other bales, provided that the proposed railway be constructed. I would point out that Mr. Harper has never included the Boorooma clip in his returns for this district, but has given it to Walgett, and that that clip amounted to 1,400 bales. Adding the Boorooma clip of 1,400 bales to Mr. Harper's 27,000, that makes Mr. Harper's estimate equal to my own, but I want to plus that with 7,000 more bales. Therefore, I strongly assert that we have a right to say that, without in any way trespassing on the area of other railways, we should send 36,000 bales of wool by rail from Brewarrina. It is desirable that I should give you some information as to the passenger traffic. It has been a very difficult matter to arrive at an exact estimate, owing to the coaches in this district having changed hands, and also owing to the fact of the continual opposition here; but, after careful and honest consideration of the matter, I think I am justified in saying that it is a fair thing to reckon the coach traffic at thirty-five passengers per week. I, however, wish you to understand that that does not include the private traffic nor the swagmen, but only those who travel by public coach; and anyone cognisant with bush habits knows that more people travel by their own vehicles in this district than by coach—females especially do not get into coaches unless from absolute compulsion.

1186. *Chairman.*] Mr. Harper's estimate is 1,500 passengers;—what do you estimate them at? 1,820; that is the number of coach passengers alone; but I maintain that 500 people at least use their own private vehicles, and therefore that number should be added.

1187. *Mr. Fegan.*] How did you get your figures? In going about and consulting the various offices, and I am sure that I am well within bounds when I say 35 passengers per week go by coach. I say that the railway passenger traffic would be 2,820 per annum. As to the matter of fat stock, from the particulars given by Mr. Dickson, and also from those that I have in my own possession, I am safe in saying that over 300,000 fat stock are sent away from this district annually. I have made this up from returns that I have obtained from large pastoralists in the district, and on the average there would be ninety to the truck.

1188. *Chairman.*] Speaking from your experience as a sheep-owner, about what percentage of the total number of sheep do you say may be regarded as a fair average of fats? Some stations have not a fat sheep on them year after year, because they only breed sheep, whilst others fatten. The question is a hard one to answer. Some stations never send a fat sheep away. At the present time this district is not used so much as a fattening as a breeding district.

1189. You cannot answer that question? No; not directly in that way.

1190. 300,000 coming from this district, and not coming in from Queensland, would represent 20 per cent. of the total number of sheep in the district;—do you think that would be a fair estimate? I do not think it is too much to say.

1191. It seems rather a large estimate, taking into consideration the fact that many of the stations are breeding stations? It does; but places like Collmaroy never breed sheep, but buy and fatten them. It is a very poor sheep that does not cut 3s. 4d. clear, and that is about 6½ lb. at the general rate of sheep. That is proof that an ordinary clip is over 6 lb. I contend that the construction of the proposed railway from Byrock to Brewarrina will in no way interfere with, nor has it anything in common with any other proposed railways that are now before the Public Works Committee, so far as I can ascertain from this plan—I mean the area enclosed in the red lines. There is a proposal to construct a railway from Warren to Coonamble. Knowing every yard of that country, I can speak with a good deal of assurance in saying that there is no possibility of connecting Coonamble with Brewarrina. The nature of the country forbids that in every possible way. As to the construction of the proposed Narrabri-Pilliga railway—and supposing that it will go to Walgett—it is impossible for the Brewarrina people ever to go to Walgett to meet the railway. It is equally impossible for the Walgett people ever to come here to enjoy our railway. As far as the eastern boundary of Boorooma we can go at any time; but between there and Walgett the Moonee River comes in from Queensland, and there are enormous billabongs, and on the approach this side of Walgett there are 4 miles of water sometimes; therefore it is perfectly impracticable for the two places to be in any way associated. As to the proposed railway from Woolabra to Collarendabri, I have no doubt that that is a reasonable line; but let it be constructed to Angledool, and I emphatically say that not one soul out of this area would use it, provided that the proposed railway from Byrock to Brewarrina be constructed. If that railway were made I distinctly say that only from the immediate neighbourhood of Goodooga might a few people go to it. I have desired to show clearly that this line should be considered, and can stand entirely upon its own merits.

SATURDAY, 19 MARCH, 1898.

[The Sectional Committee met at the School of Arts, Brewarrina, at 10 a.m.]

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (CHAIRMAN).

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

The Sectional Committee further considered the proposed Railway from Byrock to Brewarrina.

Richard Randolph Machattie, stock and station agent, Brewarrina, sworn, and further examined:—

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1192. *Mr. Fegan.*] You know the route which the proposed line would traverse? Yes.
1193. Do you know whether there is any private, freehold land along there;—in preparing your case, has the amount of severance or resumption that will have to be made, been taken into consideration? With the exception of a small holding at the back of Tarcoon, and G. Colless' conditional lease 537, there will be no necessity for any land resumption, I think, or perhaps the line may interfere with portion 5, parish of Morla, on the Bogan. I may mention that, the original surveyed line has 'all been reserved.
1194. You are a land valuer? I can hardly say that I am a land valuer, but I am a surveyor and engineer by profession.
1195. But you have given advice? I have.
1196. Can you give the Committee an approximate estimate of what the resumption in this case would cost? I think that, if the land-holders were returned what they paid the Crown for any land that might be resumed, they would be fairly remunerated, except in the case of Mr. Colless' where the portion would be severed.
1197. I suppose you know there is no proposition to fence the line? Yes. If the railway were to pass through any large property of mine, not destroying it but merely cutting off a portion, and leaving sufficient for a paddock, I should be only too pleased to give for nothing whatever land was required for the line.
1198. To give a full valuation, what do you think the resumption would cost approximately? I do not know what the Crown will take for the railway, but allowing $1\frac{1}{2}$ chain wide for it, that would necessitate the resumption of about 40 acres altogether, the greater portion being conditional leases. In the Tarcoon case, unless the line should go very close to the tank and interfere with it, I think that a very small amount of remuneration would be enough. As to Mr. Colless' property, some of his land being cut off, it would have to be fenced at any rate on one side and a tank put there; stock could not be continually taken over the railway line to and from the water, therefore, the part severed from the main portion would have to be fenced and water provided upon it. Judging from the character of the country immediately surrounding the Tarcoon block, I think that it might not be necessary to interfere with the Tarcoon block at all.
1199. Do you know Colless' land well? Yes.
1200. Can you give the Committee any idea what the cost in that case would be? Well, the land would have to be fenced on one side, and that would mean a $1\frac{1}{2}$ mile fencing, and a tank would be required for 120 acres. I think that £150 would be a fair thing for Mr. Colless to ask for—£50 for fencing, and £100 for a tank. Nothing less than a 2,000 yards tank would be of any use at all there, and the cost at 6d. per yard would be £100.
1201. So you think, taking all things into consideration, that £300 would pay for the severance, &c., in connection with the line? I think it would amply pay for it.

Wilfred John White, pastoralist, Tara Station, near Brewarrina, sworn, and examined:—

W. J. White,
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1202. *Mr. O'Connor.*] How far is your station from Brewarrina? Twenty-two miles.
1203. In what direction? About north.
1204. Between Brewarrina and Goodooga? Yes.
1205. What stock do you run? From 10,000 to 12,000 sheep.
1206. I believe that you desire to give some information with regard to your last clip and its weight? Yes. We shored 10,081 sheep, and they yielded 191 bales of wool.
1207. What weight? About an average of from $7\frac{1}{2}$ lb. to $7\frac{3}{4}$ lb.
1208. Of greasy wool? No; about 30 bales of it was scoured.
1209. About 12 per cent. of the wool was scoured? Yes, about that.
1210. How many bales to the 1,000 sheep? About nineteen; from eighteen to nineteen, I think, would be the average.
1211. For how many years? I have had the place three years, but have only taken two shearings.
1212. Was the first shearing equal to the other? No; we had between eighteen and eighteen and a half bales to the 1,000 sheep in the first shearing in 1896.
1213. That is including scoured and greasy? Yes.
1214. I think there is a difference in the railway rates for greasy and for scoured wool? Yes; a difference of £1 a ton.
1215. What do you pay for greasy? £4 per ton.
1216. And for scoured? £5 per ton.
1217. Is there any cultivation on your holding? None whatever.
1218. Where do you send your wool to at the present time? Byrock.
1219. What does it cost you for carriage to Byrock? £2 10s. per ton.
1220. By road the whole way? Yes.
1221. What does it cost you as far as Brewarrina? I have never had any taken by the boats.
1222. What does it cost you by road from your holding to Brewarrina? From 25s. to 30s. a ton.
1223. And the difference between Brewarrina and Byrock? Yes.
1224. It has never cost you less than £2 10s.? No, and it has cost me as high as £2 15s.
1225. Have you any difficulty in getting your wool to the railway station? Yes, when the roads are bad.
1226. What does the difficulty arise from principally? Heavy roads after rain, or in bad seasons the want of grass for the carriers.

1227.

1227. Do you get the rainfall here about the time you want to send your wool to the railway? Yes, during the spring and autumn as a rule. W. J. White.
1228. Has it frequently happened that you have been delayed in sending your wool to the railway station? We had last season and the second season considerable difficulty. 19 Mar., 1898.
1229. How long have you been in the district? Twelve years.
1230. You can say from your own experience that there has been difficulty in getting wool to the railway station by reason of heavy roads after rain? Yes, I can.
1231. *Mr. Fegan.*] What is the rainfall at your place? For the three years we have been there the rainfall has averaged 14 inches per annum.
1232. What was the average according to previous experience? More than that.
1233. What has it been the last two years? It averaged between 14 and 15 inches for the last two years; but taking the whole period for twelve years the average must have been between 17 and 18 inches.
1234. Where do you get your stores from? From Brewarrina partly, and partly from Sydney, and some from Bourke.
1235. How much stores do you get during the year? about 6 tons.
1236. How are your runs watered? By river and by tanks.
1237. Have you ever tried sinking wells for water? No.

Walter George Jameson, stock and station agent, Brewarrina, sworn, and further examined:—

1238. *Chairman.*] Do you wish to add something to your former evidence? Yes; about eighteen months ago Mr. Bacon, of Dumble Station, near Goodooga, wished to dispose of some of his sheep, and sent my firm particulars of the sheep, and at the same time, as a guide to any intending buyers, he sent samples of the wool and the different weights he had cut per sheep, so that any other sheepowners could ascertain what they were going to inspect; and I have here in his own handwriting a description of the number of pounds per sheep cut and samples of the wool. I was instructed that he had from 5,000 to 6,000 six-tooth wethers, which cut 9 lb. of wool per head, and about the same number of four-year-old wethers, which for 372 days' growth cut 9½ lb. He had also a small lot of six-year-old ewes, with 60 per cent. of lambs at foot, which cut 8½ lb. W. G. Jameson.
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1239. Did that comprise the whole of his sheep? No; only his surplus stock, which he wished to dispose of.
1240. That was the stock he had for sale? Yes.
1241. Can you from that estimate the average cut? I should say that the average cut would be fully up to that, because naturally he would not sell his best sheep.
1242. *Mr. Fegan.*] Would his sheep be only equal to the other sheep in the district? I should say that they would be a fair average of the station clips about here. He deals a good deal, and I think that that would be just an average clip. I also wish to state that whilst I was at Weilmoringle, as storekeeper, I personally weighed the whole of the clips for about three years. When I went there, in 1888, they had 82,000 sheep, which they worked up to 150,000 sheep; and when the resumed country was taken up they reduced the number to about 110,000; and during the years that I weighed the clips we used to average the quantity of wool cut per head, and it never came under 7 lb. per head.
1243. Taking the whole district through, would you call 7¼ lb. a fair average? It would be a very fair average.
1244. *Chairman.*] Would it be a full average? No; I think it would be a moderate estimate, for within the last few years the different boiling-down establishments have got rid of the old and inferior sheep, and the class of sheep in the district is improving very rapidly.

George White, Brewarrina, sworn, and examined:—

1245. *Chairman.*] Are you a steam-boat proprietor? I am not now, but I have been until lately; I am merely a master now on the river. G. White.
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1246. How long have you been in this district? Over twelve years on this end of the river.
1247. Before you became a member of the steam-boat company for which you are now master were you a steam-boat proprietor? I have been a steam-boat proprietor.
1248. How many boats were trading on the river before you joined the company? Two, between Wilcannia and Walgett.
1249. When did you join the company? In 1891.
1250. Were your boats taken over by the company? Yes.
1251. Since that time you have been in the employment of the company? Yes.
1252. And you have a full knowledge of the river traffic? A fair knowledge of it.
1253. How many boats at the present time are working on the river—the total number, including your company's? It would puzzle me to tell you; there are hundreds of them; there are several companies. Permewan, Wright, & Co. have nearly a dozen boats of their own, whilst Chaffey Brothers, and Keen and others have boats working on the Murray, Murrumbidgee, and Darling.
1254. I do not mean boats working on the Murray, but on the Darling, between Walgett and (say) Wilcannia? I think there would be about thirty steamers running exclusively on the Darling and the lower part of the Murray. The boats that we have running between Walgett and Wilcannia would not average more than four or five, but we run our boats right down to South Australia as well. There are a large number of boats between Walgett and Wilcannia. The general average would be four or five—sometimes more and sometimes less. Sometimes we send an extra boat lower down, and sometimes an extra one coming up is required.
1255. How many steamers have you running on the Darling, carrying to or from any point between Bourke and Walgett, or higher up the river? At the present time we are using three or four, but in the wool season it may be necessary to put on four or five.
1256. How many other steam-boats not owned by your company are running? About two or three only outside boats at this end. The other boats seldom come up above Wilcannia; in fact, there is a sort of agreement that they shall not come up.

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1257. You say there are seven steam-boats running on the river between Bourke and Walgett, or above Walgett? In a good wool season, and when we have a good river, there would probably be between Bourke and Walgett four or five steamers constantly running, but should occasion require more vessels to be put on they would be put on. It depends on how the wool comes in.
1258. Have you any knowledge of the traffic from Bourke up river? I can speak roughly of it.
1259. What is your estimate approximately? I should think about 4,000 or 5,000 tons per annum.
1260. And down the river to Bourke? A little more down.
1261. So you think the river traffic would come to something over 8,000 tons? I think it would come to over 10,000 tons; in fact, if we had a railway at Brewarrina I think it would be much more than that, for the railway would draw a great deal of traffic that now goes by team to Narrabri.
1262. Do you consider that 8,000 tons would fairly represent the traffic on the river? Yes, I think so.
1263. Some of the witnesses have said 10,000 tons, and others less? Some years it is larger than others. It may be 8,000 tons this year and, perhaps, 11,000 tons next year. Sometimes there are improvements going on, and sometimes the clips are heavier.
1264. Are you of opinion that 8,000 tons would be a fair estimate? I think that about 10,000 tons would be a fair average estimate.
1265. Have you carried any large quantities of loading from South Australia to Bourke or Brewarrina? I have not done so since I have been in my present employment. But I have brought up as much as 400 or 500 tons with one steamer belonging to South Australia—in 1884, I think.
1266. Do you know the cost of carriage from Sydney, *via* Adelaide and Goolwa, to Bourke? I am not quite sure of the figures, but I believe that goods can be carried to South Australia—Adelaide or Victor Harbour—from Sydney for about 15s. by passenger boats.
1267. What would be the rail? The average rail would be about £1 to Goolwa or Murray Bridge.
1268. That would make £1 15s.? Yes.
1269. What would the river carriage to Bourke cost? From £1 to £3. It depends on the goods to be carried. You can carry 500 lb. on the river as cheaply as 1 lb., so long as there is room for the goods.*
1270. Then you cannot average the cost of obtaining goods from Sydney by way of South Australia? I consider that goods can be landed in Bourke from Sydney for £3 10s., including all charges.
1271. So it is cheaper to obtain goods in some quantity by way of Adelaide than by rail from Sydney? I think so, provided you have the quantity; only you cannot depend on the river—that is the great trouble.
1272. What is the time of the journey? It would take a boat five weeks to come from South Australia alone—that is, loading and unloading and getting here—and there would be the time from Sydney as well, which would make it over six weeks before the goods could be delivered at Bourke, even under favourable conditions.
1273. At the present time is much loading brought from South Australia to Bourke? There has been a great deal, but lately we have not had good rivers sufficient to run goods up.
1274. When the river is navigable are goods brought in any quantity? Yes.
1275. So the steamers are still running in competition with the railway? Yes; from South Australia, when the river is open.
1276. Does much wool go to South Australia? Very little goes from this side of Wilcannia, but nearly all the wool from near or below Wilcannia goes to South Australia or to Melbourne.
1277. I am speaking of wool going from Brewarrina or Bourke? None goes now, but prior to the railway to Bourke a good deal of wool went right down to South Australia from this district. Beemery, for instance, sent all their wool down. But since the advent of the railway at Bourke only a few bales have gone down the river from Bourke.
1278. An appreciable quantity? Very small. I know of only one load that for a long time has gone down.
1279. Would any traffic lower down than Wilcannia affect the proposed railway now under consideration? I do not think it would. I think that that lower traffic will go that way while there is a river to carry it, no matter how many railways we may have.
1280. What is the lowest freight at the present time on this part of the river? The average freight from Bourke to Brewarrina is about £1 a ton.
1281. Have you ever known the freight to be low as 12s. 6d.? No.
1282. When you were working the boats for your own benefit did you ever charge less than £1? Never. I have charged as high as £2, but never less than £1.
1283. Speaking from your experience as a steam-boat proprietor, and the information that you possess as the master of a steamer working under the Company, can you say if the loading could be carried at a profit for less than the present rate of £1 per ton? With the small quantities that we at present get it could not be carried under £1 a ton, but with larger quantities it could be.
1284. That is to say, the loading is so distributed amongst the boats now that you could not carry for less than £1 a ton, but if you had very large loads for each of your boats the freight could be reduced? It could be reduced with larger loads.
1285. But would the system now adopted in collecting the up and down loading admit of your obtaining large quantities for each boat? At present I do not think it would, because 500 or even 400 tons is a large quantity to bring to this town in one loading, and you would require to take loads like that to make a good profit at less than £1.
1286. Do you get loads of 400 or 500 tons now? Not at this end.
1287. What do you mean by this end? I mean from Bourke upwards.
1288. Do you get loads of 400 or 500 tons from Brewarrina to Walgett? No.
1289. Why is it that you do not get heavy loads like that? The distance is short, and we make many trips, and carry the goods as they come in. When we have a sufficient load we start away with it.
1290. When you say that you could carry at less than £1 if you had heavy loads, you mean that the traffic of the district at the present time is of a character that does not allow you to obtain heavy loads for any one steamer—is that what you mean? I mean that we cannot be kept regularly going with heavy loads for any number of boats, and we have to scramble and take what we can get, and at the present rate of £1 a ton there is barely any profit. But if we had more chances and larger loads to carry we could carry at much less.
- 1291.

NOTE (on revision):—These figures are incorrect. What I meant to convey is that the expense of moving a small quantity nearly equals that of a large quantity, providing it is within the capacity of the vessel.

1291. The nature of the traffic on the river is such that you cannot carry at less than 20s. per ton between Bourke and Brewarrina? I do not think that it would pay under 20s. on the river at the present time.
1292. Do you know if the steamboats have been profitably worked at that rate? They have been profitably worked until the last three years, when we have had droughts which have not allowed us to run. We have been lying up, and have been losing money the last three years. Last year was a fairly good year, but it did not recoup us for bad previous years. The last three years, I know, the steamboat company has got behind, and into debt financially.
1293. Do you think that it is possible that boats could be run at 10s. or 12s. 6d. profitably? Not at present.
1294. If not at present, how about the future, and what has been done in the past? There is such a thing as putting on a different class of boats that would be cheaper to run—boats better adapted to the trade, with labour-saving machinery which would reduce the cost of carriage materially.
1295. That is to say, under existing conditions it would not be possible, but with improved boats and facilities the freight might be reduced;—is that it? Yes.
1296. Do you think that it could be reduced to 10s. or 12s. 6d. a ton? It would be cutting it very fine at 12s. 6d.
1297. No margin of profit left? Very little. So far as distributing goods from, or bringing goods to a railway at Brewarrina is concerned we have the advantage of the water-carriage here at least fourteen days sooner than they have it at Bourke. A quantity of goods consigned to Walgett, or any stations up the river from Brewarrina could be landed from the railway here, and be taken to their destination at least fourteen days earlier than they could possibly come by river from Bourke.
1298. Do you mean that you have a navigable river between Brewarrina and Walgett a fortnight earlier than between Bourke and Brewarrina? Yes.
1299. Is the river navigable for a longer period between Brewarrina and Walgett than it is between Bourke and Brewarrina? Yes. I have run from here to Walgett and brought down full loads of wool when boats were stuck up between Brewarrina and Bourke. At any time we have 60 miles of water here which is navigable nearly all the year round, no matter whether there is or is not a drought, until we come to a bar called Collaroy. When we get over that it takes a very little rise to enable us to get to Walgett. In fact, I have been to Walgett when the gauge read 6 feet, but I failed to get back. However, on 7 and 8 feet at Walgett I have made a trip from here and back. Leaving Walgett with 7 feet on the gauge, which does not give 7 feet on the river—I have returned safely to Brewarrina. The lowest I ever tried was 6 feet, and I then got stuck at Collaroy. I had to camp there and wait for a rise of a few inches. In 1892 we had three vessels—the “Rob Roy,” “Brewarrina,” and “Excelsior.” The company was formed in July, and each of four shares in six months cleared £525 in cash—between July and 1st January, that is to say, the three steamers earned in those 6 months something over £2,000.
1300. For how many months in the year on the average is the river opened to Mungindi? You cannot strike an average. In 1892, 1893, and 1894, you could go up nearly all the year round, but in 1895, 1896, and 1897, you could not get there at all.
1301. It would be only occasionally that your steamers could go as far as Mungindi? Yes.
1302. And I suppose that in the event of a railway reaching the Barwon at Walgett, or near Walgett, any traffic from Mungindi would be trucked at Walgett? It would not come this way at all; it would go either Moree way or from Walgett.
1303. Therefore that traffic would in no way affect the proposed line now under consideration? If that railway were not built, our traffic here would be increased, but if a railway were built there we could not look for that traffic, but we should get a large quantity of it if that railway were not built.
1304. That is upon the assumption that a railway were not extended to Collarendabri from Woolabra or some other point on the Narrabri-Moree Railway, or to Walgett or Pilliga from Narrabri? Yes. We should have a considerable addition to our present carriage of goods, for a railway which would embrace those districts, and a number of large stations, such as Dungaleer, about Collarendabri, and on this side of Collarendabri, would bring a lot of traffic here which at the present time is carried on to Narrabri. If a railway were not built to Collarendabri that traffic would come here.
1305. Always on the assumption that the river would be navigable as far as Mungindi? No. Even if the river were not navigable at all, a number of those places would cart goods to Brewarrina in preference to sending them to Narrabri, the distance this way for road-carriage being shorter.
1306. You mean, cart the goods to Brewarrina instead of taking them to Walgett? In some cases I believe they would. We have had from Gingie, which is close to Walgett, wool carted right to Bourke.
1307. You know the reason for that—of course, you understand that the railway carriage from Narrabri to Newcastle or Sydney would be very much shorter than from Bourke to Sydney? Yes; but at the time I speak of I think that the carriage from Narrabri to Sydney was nearly equal to the carriage from Bourke to Sydney, but I understand that a reduction has been made since.
1308. That is to say the through rate was an inducement? I think that the rate being a through rate, probably had something to do with the wool coming this way. I do not know why it did come this way, but it did.
1309. I suppose that we may assume that it was because the through rate was less *via* Bourke than it would have been *via* Narrabri—when I say “through rate” I mean road carriage as well as railway carriage? I cannot tell you the reason why, but I know that we had the wool here.

G. White.
19 Mar., 1898.

Charles James Robine, Post and Telegraph Master, Brewarrina, sworn, and examined:—

1310. *Chairman.*] What is your position in the Public Service? I am Post and Telegraph Master at Brewarrina.
1311. How long have you occupied that position? Twenty-three years.
1312. Can you give me the average postal returns, say, for three or four years, including returns from telegrams and money orders? The total revenue from all sources at Brewarrina for the year 1896 was £1,693; for 1897, I think about £1,640; and for 1895, a little more than for 1896.
1313. Has there been an improvement since 1895? There was a little falling off in 1897, I think, on account of the drought.

C. J. Robine.
19 Mar., 1898.

C. J. Robine. 1314. Up to the present period of 1898, by comparison with a similar period in 1895 and 1896, do you think that there continues to be a falling off, or is there an improvement over 1896? I think there is an improvement in the present year. I attribute the little falling off in 1897 to the drought. Following is a statement of letters, &c, actually posted in the letter-box at Brewarrina during the years 1896 and 1897 respectively:—

	1896	1897
Inland letters ...	81,108	86,856
Intercolonial	6,648	7,248
Foreign	2,118	1,848
Letter cards, inland	1,680	2,052
" intercolonial	156	336
Post cards, inland	2,628	2,520
" intercolonial	169	408
" foreign	Nil	Nil
Packets, inland	10,260	10,332
" intercolonial	624	890
" foreign	96	208
Newspapers (inland, intercolonial, and Foreign) ..	25,392	26,532

Following is a statement of business transacted at the post and telegraph office, Brewarrina, for the year ending 31st January, 1897 —

	£	s	d.
Postage stamps sold ..	1,446	14	11
Postal notes issued ..	955	7	2
Postal notes paid—383 ..	145	10	7
Savings Bank deposits—302 ..	2,251	14	7
" withdrawals—114 ..	1,614	14	10
Money orders issued—967 ..	3,458	13	5
Commission on same ..	36	0	6
Money orders paid—319 ..	2,076	18	3
Telegrams transmitted, including O S —7,129 ..	481	8	9
Telegrams issued—5,810 ..			
Parcels despatched—424 ..	t	c	q
Parcels received—3,576 ..	0	13	3
	7	14	3
			26
			8
			27
			7
			10

Thomas Willans Conolly, District Surveyor, Bourke, sworn and examined:—

T. W. Conolly. 1315. *Chairman*] What is your position in the Public Service? I am District Surveyor, Bourke Land Board District, Lands Department.

1316. Does that district embrace Brewarrina? Yes.

1317. Have you been over the district to Brewarrina? No; I have not to any extent. I have not very much personal knowledge of it.

1318. Then the information you give us to-day is obtained by you from official sources? It is.

1319. Can you say what the total area available for settlement is? The area at present available for settlement in the Land District of Brewarrina, excluding the county of Gregory, is 50,000 acres. The area at present available for settlement in the Land District of Brewarrina East amounts to 6,400 acres. The leasehold areas expiring in 1,900, which can then be made available for settlement, amount to 307,000 acres. The area which could be made available by withdrawal under section 6 of the Crown Lands Act of 1895 is as follows —Around Goodooga, 17,000 acres; around Brewarrina, 30,000 acres; total, 47,000 acres.

1320. Has the power of withdrawal been exercised at all? At Brewarrina there was one inquiry into a proposed withdrawal, but it was shown at that time there was not sufficient public necessity to exercise the power of withdrawal under the Act.

1321. Then the power of withdrawal has not been exercised? No. The area comprised in reserves for railway purposes 1 mile on each side of the original trial line, and a reserve at the Bogan River amounts to 73,600 acres. But these reserves cannot all be made available for settlement until after the expiry of pastoral leases about 1913. A point of law has been raised as to whether they could be made available then. At any rate, a very large part cannot be made available until after 1913.

1322. That question has arisen in connection with the construction of certain sections of the Acts of 1884, 1889, and 1895? Yes. The total area included within the "red lines" on the map known as Mr. Sawers' map is 4,505,600 acres; the area in pastoral leases, 2,376,000 acres; the area in homestead leases, 1,584,000 acres; the number of pastoral leases, 35; the number of homestead leases, 162; the area at present available for settlement, 56,320 acres; the area which will be available in 1900 upon expiry of Central Division leases, 198,400 acres; the area of railway reserves not in leasehold areas in Western Division on Byrock-Brewarrina railway trial lines, 13,440 acres, 1,600 acres of this area being within the Brewarrina Common.

Richard James Kelly, chemist and druggist, Brewarrina, sworn, and further examined:—

R. J. Kelly. 1323. *Chairman*] I understand that you wish to add something to your evidence? Yes; I wish to call attention to what Mr. Harper said before your Committee in Sydney, viz, that Brewarrina is far better situated for a railway than Bourke is.

1324. You wish to draw attention to that very important statement? Yes; I think it has a very important bearing on the question of the construction of the proposed railway, especially coming from Mr. Harper, who travels about so much. He said that in his opinion Brewarrina should have been the centre instead of Bourke.

1325. I suppose you are of the same opinion? Most certainly.

Edward MacFarlane, Chairman, Land Board, Bourke, sworn, and examined:—

E. MacFarlane. 1326. *Chairman*] You are chairman of the Land Board? Yes; head office, Bourke.

1327. You were previously, I believe, District Surveyor? Yes.

1328. For Bourke and Brewarrina? For the same Land Board Districts.

1329. Which embraced Bourke and Brewarrina? Yes.

1330. *Mr. O'Connor*] Do you know the district well? I believe I do.

1331.

1331. How long have you been in the district? I first came into Bourke in 1879; I visited it again in 1880, and I took charge on the 1st January, 1881. Since then I have been constantly resident in the district. The district is a varied one, and in my opinion it is principally a pastoral district. It contains some very valuable pastoral land and also some inferior pastoral land, but, taking the Brewarrina district generally, its carrying capacity is on the average not less than 3 acres to a sheep; it may carry more sheep. A good class of wool can be grown in the district, the sheep are singularly healthy—they are free from disease—and I suppose generally that for a large area of country there is no better pastoral district than the Brewarrina district.

E.
MacFarlane.
19 Mar., 1898.

1332. How long is it since you increased the rents? I have been reducing them.

1333. I understood that you increased the rents here by 7 per cent.? No, we have reduced the rents very materially. We made some small increases. We increased the rent of Boorooma slightly the other day, and one or two homestead leases, but, taking it on the whole, the result of the late sitting of the Land Board was a reduction in rental.

1334. How does the Brewarrina district compare with other districts? It carries the highest rents.

1335. They pay a higher sum to the Crown here than in the Bourke district? Per acre they do, but not gross.

1336. And the adjoining district? I do not know the Walgett rents very well. I am under the impression that the Brewarrina rents are even a little higher than the Walgett rents at per acre, but certainly of all the districts with which I have connection the Brewarrina rents are the highest.

1337. From the most intimate knowledge which you undoubtedly have of this vast district, do you see your way clear to advocate the construction of a railway between Byrock and Brewarrina? May I say, with respect, that the decision is for you, and not for me.

1338. But we would like your opinion if you like to give it? On the whole, you would benefit the district if you put a railway from Byrock to Brewarrina.

1339. *Chairman.*] Have you travelled over the district very frequently? Constantly.

1340. You know it thoroughly? Yes.

1341. What area is comprised in the district of which you were District Surveyor? 59,000,000 acres—three-tenths of the Colony.

1342. About what population was settled there? A small one—about one person to 1,500 acres; that would be about 40,000 people.

1343. Compared with other pastoral districts, does Brewarrina carry its due proportion of population? The Brewarrina district is the most closely settled of all the districts with which I have had to do officially.

1344. Have you formed an opinion as to the carrying capabilities of the district—the total number of sheep? Yes. I said a sheep to 3 acres in the Brewarrina district.

1345. I want you to give me in round figures an estimate of the total number of the whole district? The 59,000,000 acres generally ought to carry over all of it a sheep to 6 acres.

1346. That would be 10,000,000? Yes; it has gone as high, I believe, as 12,000,000 of sheep, but the district would not be over-stocked carrying 10,000,000 of sheep.

1347. What would be the number of sheep that might fairly be estimated to be carried by the area that would, in your opinion, be served by the proposed railway? Something over 1,450,000—that is with safe stocking.

1348. Do you consider that at the present time the country is lightly or heavily stocked? I have not seen a sheep for months. I do not know what the number of sheep in the district at the present time is. The stocking varies; you have to constantly follow it and be about to know if it is lightly or heavily stocked. The country is looking very well, and the probability is that it is not over-stocked at present, but I could not be positive.

1349. During the time you were District Surveyor I suppose that large improvements were effected on the different holdings? Enormous improvements were effected.

1350. Were all those improvements effected with the view of increasing the carrying capabilities of the country? Mostly with the view of increasing the grazing capacity of the country.

1351. Do you remember if, during the time you were District Surveyor, any very marked difference occurred in the carrying capabilities of the country? I could not say. I know the district was very lightly stocked when I came here, and I know that after the 1884 drought the country was very poorly stocked, and I also know that in 1891 and 1892 it was very heavily stocked; but the relative proportions between 1884, 1888, and 1892 I could not tell you from memory.

1352. Is it your opinion that still further improvements in the same direction would increase, either largely or moderately, the carrying capabilities of the district? I believe that by further expenditure in improvements the carrying capability of the country could be very considerably increased.

MONDAY, 21 MARCH, 1898.

[The Sectional Committee met at the "Royal Hotel," Byrock, at 9 a.m.]

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (CHAIRMAN).

THE HON. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

The Sectional Committee further considered the proposed Railway from Byrock to Brewarrina.

George Voss Mocatta, surveyor, Railway Construction Branch, Department of Public Works, sworn, and examined:—

1353. *Chairman.*] What is your position in the Public Service? A railway surveyor.

1354. Were you the surveyor in charge of the proposed line from Byrock to Brewarrina? Yes.

1355. Can you produce your plans and sections of the line? Yes.

1356. Will you describe the line, having regard to the flooded portion of the country which the line will traverse and also the nature of the work—whether the railway will be easy of construction or difficult? It is a light line.

G. V.
Mocatta.
21 Mar., 1898.
1357.

G. V.
Mocatta.
21 Mar., 1898.

1357. What is known as a cheap light line? Not the cheapest kind of light line. The estimate of cost is given in Mr. Deane's evidence. Starting from Byrock the country is red soil, generally free from liability to flood to within 2 miles of the Bogan River, a distance of 32 miles.
1358. Is that portion of the line of the easiest construction? No, it is not. Part of the distance referred to consists of quartz and ironstone ridges where some small cuttings and a considerable amount of curvature will be necessary.
1359. Any bridges? Culverts, but no important bridges.
1360. Will you describe it from that point onwards towards Brewarrina? From that point onwards towards Brewarrina the country changes to a black soil, and there will be several large bridges, there being a considerable amount of country liable to flood. The first bridge will be at the Bogan River, where there is from a mile to a mile and a half of country liable to flood, which would also require a viaduct. There need not be any other bridge until the Nyrang Bogan is reached. That is about 6 miles beyond the Bogan. From this point onwards the line follows a buddah ridge to within half a mile of the Tarrion Creek, which is an overflow of the Barwon, and there is also a considerable area of country liable to flood which would need bridging. The Tarrion Creek is about 54 miles from Byrock. The remainder of the line, about 6 miles, into Brewarrina is liable to light floods. It consists of open plain, and certain provision would have to be made to allow the flood waters to pass through.
1361. Would there be any difficulty in obtaining material for any necessary ballasting? No; there would be no difficulty in obtaining material, but it is very doubtful whether it would not pay better to bring the ballast from existing quarries on the main line rather than to erect a plant to get ballast on the line itself, inasmuch as the ballast from the main line could be obtained as the work of constructing the proposed line proceeded, and there would be no difficulty as regards conveyance.
1362. It is a matter, I suppose, that would be optional with the contractor? Yes.
1363. He would make the best terms possible in his own interest? Yes.
1364. Is the country through which the railway would pass of a similar character or superior to the road from Byrock, *via* Gongolgon, to Brewarrina? The first 32 miles from Byrock on the proposed route is decidedly superior to the country on the road between Byrock and Gongolgon. For the remainder of the distance to Brewarrina the country by both routes is similar. It consists of good black soil, very well adapted for pastoral purposes.
1365. Would you describe it as pastoral country all along the proposed line? Very good pastoral country.
1366. Do you know where it is proposed the line should terminate? The proposed line would commence at 455 miles 62 chains from Sydney, and terminate at 514 miles 25 chains from Sydney.
1367. Did you select the station site? No; that question was left open, because it was considered that the line would very likely be continued past Brewarrina.
1368. Would there be any difficulty in obtaining a satisfactory station site in close proximity to the township? I do not think so. Very great floods may go outside the River Barwon at any time, and may flood the ground. There are records of floods having been all over the town of Brewarrina, but that occurs only once in thirty or forty years. I would not say that you can pick a station site, except at a considerable distance from the town, which would be absolutely out of the reach of all floods.
1369. *Mr. Fegan.*] Is there no station reserve then? There is, I think, a reserve where the line goes in.
1370. You cannot tell us the exact position of the station site? There is a reserve upon which the station might be built.
1371. There would be sufficient space available for station requirements? Yes.
1372. Do you know the area of the reserve? About 60 acres.
1373. Affording ample room for station purposes? Yes.

1898.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

PARLIAMENTARY STANDING COMMITTEE ON
PUBLIC WORKS.

REPORT

TOGETHER WITH

MINUTES OF EVIDENCE, APPENDICES, AND PLAN,*

RELATING TO THE

PROPOSED RAILWAY

FROM

NARRABRI TO PILLIGA.

Presented to Parliament in accordance with the provisions of the Public Works Act,
51 Vic. No. 37.

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

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MEMBERS OF THE COMMITTEE.

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 The Honorable JAMES HOSKINS.
 The Honorable CHARLES JAMES ROBERTS, C.M.G.
 The Honorable WILLIAM JOSEPH TRICKETT.
 The Honorable DANIEL O'CONNOR.

LEGISLATIVE ASSEMBLY.

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 CHARLES ALFRED LEE, Esquire.
 JOHN LIONEL FEGAN, Esquire.
 THOMAS HENRY HASSALL, Esquire.
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MEMBERS OF THE SECTIONAL COMMITTEE.

THOMAS THOMSON EWING, Esquire, Chairman.
 The Honorable CHARLES JAMES ROBERTS, C.M.G.
 JOHN LIONEL FEGAN, Esquire.
 THOMAS HENRY HASSALL, Esquire.

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PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

RAILWAY FROM NARRABRI TO PILLIGA.

REPORT.

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS, appointed during the first Session of the present Parliament, under the Public Works Act of 1888, 51 Vic. No. 37, the Public Works Act Amendment Act of 1889, 52 Vic. No. 26, and the Public Works (Committees' Remuneration) Act of 1889, 53 Vic. No. 11, to whom was referred the duty of considering and reporting upon "the expediency of constructing a line of railway from Narrabri to Pilliga," have, after due inquiry, resolved that it is not expedient the proposed railway should be carried out, but suggest a route by which a railway would go from Narrabri to Eurie Eurie, and, if necessary, thence on to Walgett; and, in accordance with the provision of sub-section IV, of clause 13, of the Public Works Act, report their resolution to the Legislative Assembly:—

ORIGIN OF THE PROPOSAL.

1. An agitation in favour of a line of railway from Narrabri to Walgett, the Committee are informed, has been in progress for many years, but no definite steps with regard to the proposal for a railway from Narrabri to Pilliga were taken until July, 1896, when a deputation pressed the subject upon the attention of the Honourable the Minister for Public Works, and he promised to consider whether the settlement and trade in the district would justify the construction of the line. In May, 1897, it was decided to submit the proposal to Parliament for reference to this Committee.

DESCRIPTION OF THE PROPOSED LINE.

2. The proposed railway, which is 56 miles in length, is a light or surface line cheaply constructed. It commences at the west end of Narrabri West Railway Station, at 251·75 miles from Newcastle, and runs nearly parallel with, and to the south of, travelling stock reserves, Nos. 1,227 and 1,116, to Wee Waa. Thence it follows the course of the Namoi River, keeping about 3 or 4 miles to the south of it, and ends at Pilliga at 307·75 miles from Newcastle.

The country traversed is flat, and Crown land—principally railway reserve No. 1,945—is occupied almost throughout. Very little alienated land is interfered with. A number of water-courses, more or less important, have to be crossed, but no large bridges are necessary. In some places the flood-waters of the Namoi reach out to long distances, but sufficient earthworks are provided for to keep the line above flood-level, and also sufficient waterways to carry off the water flowing across the line.

ESTIMATED COST.

3. The Engineer-in-Chief for Railway Construction estimates the total cost of the line at £128,650, or £2,297 per mile, which is about the same as the cost of the railway from Narrabri to Moree. Included in the total amount are earthworks, £10,807; timber bridges and small timber openings, £11,685; level crossings, cattle stops,

stops, and fencing, £1,620; permanent-way materials, £34,935; freight, £8,952; laying, ballasting, and sleepers, £30,553; station works, including sidings and station buildings, &c., £10,121; water supplies, £3,000; gradient and mileage posts, telegraph, and miscellaneous, £2,683; and engineering and contingencies, £14,294.

RAILWAY COMMISSIONERS' REPORT.

4. The Railway Commissioners, in their report upon the proposed railway, estimate an annual loss upon the working of the line of £4,366. The annual cost is given at £9,086, which amount is made up of interest upon capital expenditure at 3 per cent., £3,859, and cost of maintaining permanent-way and other traffic and locomotive expenses, £5,227; and the traffic estimate, calculated, the Commissioners say "upon the most favourable basis, no deduction whatever being made on account of river-borne traffic to Walgett, which must be expected when the river is navigable," is £4,720, comprising live-stock and goods, £3,150, and coaching and mails, £1,570.

"A careful investigation into the merits of the proposed line," the report goes on to state, "indicates that there is little prospect of it returning working expenses."

With regard to river competition, the Commissioners point out that the river has been navigable seven times in the last fourteen years, and that in view of the policy to improve river navigation, it may be more frequently so in the future. The river freight during the year 1895 in goods was, they state, 790 tons, and in wool, 2,035 tons, which would represent about £1,300 of the railway revenue that has been included in the estimated traffic mentioned in their report. Other railway extensions which are under consideration, they say further, will affect the probable traffic on the Pilliga line. The proposed railway from Warren to Coonamble would, if constructed, compete for a part of it, and competition would also take place in connection with the proposed line from Woolabra to Collarendabri. "After duly weighing all the circumstances," the Commissioners say, in conclusion, "we cannot recommend the construction of the line."

INQUIRY BY A SECTIONAL COMMITTEE.

5. The Sectional Committee, appointed to visit the district for the purpose of inspecting the route of the line, taking evidence, and reporting on the proposal, regarded the proposed railway and that from Woolabra to Collarendabri as so closely associated with the question of the best method by which the country passed through would be developed, that it seemed to them this was what they really had to consider. Consequently, they dealt with the two railway proposals together, and with another mentioned in the evidence, which would go from Narrabri between the two proposed lines to Eurie Eurie, and, if necessary, from Eurie Eurie to Walgett.

"The country which will be developed by the two lines," they say in their report, "is, generally speaking, bounded on the east by the Moree-Narrabri line and its extension towards Newcastle; on the north by the limits of such traffic as may reach Collarendabri, or any portion of the line from there to Woolabra in preference to Moree, that area of country extending beyond Angledool to the Queensland Border, which will probably reach Collarendabri and Walgett in preference to Brewarrina, were a railway constructed to the latter place; and that portion of the colony of Queensland the traffic of which would find its way *via* Angledool, Mogil Mogil, or any routes to the north, to Collarendabri or Walgett. On the south, its limits would be first affected by the proposed railway into Coonamble."

In order not to overstate the area the Sectional Committee, for the purposes of their inquiry, inferred that it is possible the railway system of the Colony will be extended as far as Coonamble and Brewarrina within a reasonable time. As a recent Queensland Government *Gazette* notice removed the £2 10s. duty on wool shorn across the Border, within a distance of 30 miles therefrom, they consider that, in all probability, the wool and stock depastured within this 30-miles limit will find its way to New South Wales, and they are of opinion, further, that as the influence of railways to Collarendabri and Walgett would probably extend another 30 miles northwards, the area of New South Wales railway influence may be taken

as

as 60 miles north of the New South Wales boundary, extending to midway between Walgett and Coonamble—say about Combogolong—on the south, to midway between Walgett and Brewarrina on the west, and to within 25 miles of the Moree line on the east. The country is pastoral, but contains extensive tracts suitable for agriculture, and there appeared to the Sectional Committee no reason why cereals should not be grown with a fair prospect of success.

River competition is a matter affecting the question of a railway to Walgett or Collarendabri, and they found that, although at times the river traffic might affect the returns of the railway, it would not happen frequently. "Even as far as Walgett," they say, "the Barwon river cannot be regarded as a reasonable outlet to so important a district, and that being so, it is clear that an approach by the Barwon to Collarendabri, for ordinary trade purposes, is out of the question."

Dealing with the question of the Narrabri-Pilliga line as a proposal to construct a railway from Narrabri to Walgett, they recommend the adoption of a route described in the evidence of the Engineer-in-Chief for Railway Construction, by which a railway would go from Narrabri to Eurie Eurie, and, if necessary, thence on to Walgett. This route, referred to in the Sectional Committee's report as the "green line," leaves the Narrabri railway station on the Narrabri-Moree railway at about 255 miles from Newcastle, and bearing in a north-westerly direction round what is known as the Gravelly Ridge it crosses the T.S.R. Narrabri to Moree to the north of the Ironbarks Hotel. Thence following the low ridges (about 3 miles out from the Namoi River) which form the watershed between this river and Galathera Creek, crossing one or two swampy places *en route*, it strikes the T.S.R. Gurleigh Point to Boolcarrol at 278 miles, about 5 miles from Tribe's Hotel. From this point it bears south-westerly, keeping well north of the Wire Lagoon, and follows the highest ground round to the head of Pian Creek, about Keileher's Hotel, at 291 miles, and near where the T.S.R. to Burren and the upper T.S.R., on the north side of the river, join. This point is almost 8 miles from Wee Waa, which is accessible by bridges across the river and the important creeks. A distance of about 10 miles of this portion of the route is more or less flooded, as when the Namoi rises to a certain height it breaks across here, and the flood-waters flow round by Boolcarrol, Nowley, and Burren, joining the Barwon flood-waters in Mercadool. After passing Keileher's, the line gets on to dry red ridges, which form the divide between the Namoi and Pian Creek, and these are followed almost continuously in a north-west to westerly direction to near Cryan New Station; Pilliga being passed at a distance of about 20 miles to the south. Thence black soil is encountered to Pian Creek, which floods along its banks. After passing this creek the line strikes the plains of Eurie Eurie (country which in all ordinary floods is dry, one portion at the Old Stockyards having never been known to be under water), and crossing these plains, it bears round in a southerly direction and ends within about $1\frac{1}{2}$ mile of Walgett on the northern side of the Namoi River.

The extension from Eurie Eurie to Walgett is a matter respecting which they were not free from doubt, but taking into consideration the expenditure of Government money, and the results of private enterprise, in the town of Walgett, they regard the extension as justifiable. It seems, they say, improbable that the line can be brought nearer to Walgett than $1\frac{1}{2}$ mile from it; but investigation may show the feasibility of extending it to a greater distance towards the south-west. The question of whether the railway should for the first portion of its length leave the main line on the north or on the south side of the Namoi is also, the Sectional Committee were of opinion, a matter requiring consideration. If it should be determined to leave the Narrabri-Moree railway on the north side of the river by starting from a point further north than is indicated on the plan, a more easterly course for the first 15 miles can be obtained, and some miles of new construction may be saved.

The length of the suggested line and the one recommended to Collarendabri would, the Sectional Committee point out, be somewhat over 150 miles. The proposals of the Government are 196 miles—that is, if the Committee be right in the conjecture that Walgett is the objective point of the Pilliga line. The saving in distance is, therefore, about 45 miles, and in cost of construction approximately £100,000. The only question, therefore, remaining to be considered is, whether

the development by this method will be as satisfactory as that proposed by the Government. In the opinion of the Sectional Committee the scheme is better because it gives a shorter length of haulage from Walgett, and passes through superior country. The extent of Crown lands in the districts that would be served by the railway is considerable, and should be readily taken up in small areas. The returns from the line should be satisfactory.

THE COMMITTEE'S RECOMMENDATION.

6. For the reasons mentioned in the Sectional Committee's Report, and which shortly stated are—(1) that for the first 60 miles a line between that proposed from Narrabri to Pilliga and that from Woolabra to Collarendabri would do the work of both these lines; (2) that such a line would be located in better country than if placed on the south bank of the Namoi; and (3) that by its construction a saving of about £100,000 would be effected,—the Committee are of opinion that the conclusion arrived at by the Sectional Committee should be adopted; and they accordingly recommend that the proposal for the construction of a railway from Narrabri to Pilliga remain in abeyance until a survey of a route from Narrabri to Eurie Eurie and thence to Walgett has been made, and the advantages of a line by that route definitely ascertained.

RESOLUTION PASSED.

The resolution passed by the Committee, as shown in their Minutes of Proceedings, is as follows :—

“That, in the opinion of the Committee, it is not expedient that the proposed Railway from Narrabri to Pilliga, as referred to the Committee by the Legislative Assembly, be carried out; but they suggest a route by which a railway would go from Narrabri to Eurie Eurie, and, if necessary, thence on to Walgett.”

THOS. EWING,
Chairman.

Office of the Parliamentary Standing Committee on Public Works,
Sydney, 23 June, 1898.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

MINUTES OF EVIDENCE.

RAILWAY FROM NARRABRI TO PILLIGA.

TUESDAY, 19 OCTOBER, 1897.

Present:—

THE HONORABLE FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).	
The Hon. JAMES HOSKINS.	CHARLES ALFRED LEE, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	FRANCIS AUGUSTUS WRIGHT, Esq.
HENRY CLARKE, Esq.	FRANK FARNELL, Esq.

The Committee proceeded to consider the expediency of constructing a line of Railway from Narrabri to Pilliga.

Robert R. P. Hickson, Under-Secretary and Commissioner for Roads, Department of Public Works, sworn, and examined:—

1. *Vice-Chairman.*] Have you a statement to make to the Committee in regard to the proposal which we are now investigating? Yes. It is as follows:—

AGITATION in favour of a line from Narrabri to Walgett has been going on for many years, but no definite steps with regard to the proposal from Narrabri to Pilliga were taken until July of last year, when a deputation from several Members of Parliament and the residents of Walgett, introduced by Mr. Collins, M.P., urged upon Mr. Secretary Young the construction of the line to Walgett. The Minister, in reply to the deputation, said he thought the continuation of the line from Narrabri through Wee Waa to Pilliga was a matter worthy of consideration, and putting the proposed railway right to Walgett on one side, as not being a work of absolute necessity at that particular time, he would carefully consider the matter as to whether the settlement and trade would justify the Government in taking the line from Narrabri to Pilliga.

In May of this year, it was decided to submit this proposal amongst others to Parliament with the object of placing it before the Public Works Committee, and Mr. Deane was asked to prepare the necessary estimates, &c., so that a report could be obtained from the Railway Commissioners.

Mr. Deane estimated the cost of a single line (56 miles in length) at £128,650 = £2,297 6s. 5d. per mile.

The line begins at the west end of Narrabri West Station at 251.75 miles from Newcastle, and runs nearly parallel to and to south of travelling stock reserves Nos. 1227 and 1116 to Wee Waa. Here it follows the course of the Namoi River, about 3 or 4 miles to the south of it, ending at Pilliga at 307.75 miles from Newcastle.

The country is flat and the grades easy; and Crown land, principally railway reserve No. 1945, is occupied almost throughout.

The Railway Commissioners, in compliance with our request, forwarded their report on the proposal on the 6th July, of which the following is a copy:—

Proposed Line of Railway from Narrabri to Pilliga, 56 miles.

In accordance with the provisions of the "Public Works Act of 1888," section 13, we beg to report as under:—

Cost of construction—

The Engineer-in-Chief for Construction estimates the cost of construction of a light railway line (exclusive of land and compensation) at..... £128,650

Annual cost—

Capital expenditure at 3 per cent. £3,859
Cost of maintaining permanent-way, and for traffic and locomotive expenses 5,227

Total annual cost £9,086

Traffic estimate—

Live stock and goods..... £3,150
Coaching and mails..... 1,570

Total estimated traffic £4,720

A careful investigation into the merits of the proposed line indicates that there is little prospect of it returning working expenses. The revenue has been calculated upon the most favourable basis, no deduction whatever being made on account of river-borne traffic to Walgett, which must be expected when the river is navigable.

So far as can be ascertained the river has been available seven times in the last fourteen years, and, in view of the policy to improve river navigation, it may be more frequently so in the future.

The river freight during the year 1895 in goods was 790 tons, and in wool 2,035 tons, which would represent about £1,300 of railway revenue, which has been included in the estimated traffic mentioned in this report.

Other railway extensions which are under consideration will affect the probable traffic. The proposed line from Warren to Coonamble would, if constructed, compete for a part of it, as also would the more recently proposed line from Woolabra to Collarendabri.

After duly weighing all the circumstances, we cannot recommend the construction of the line.

The Common Seal of the Railway Commissioners of New South Wales was hereunto affixed, this sixth day of July, One thousand eight hundred and ninety-seven, in the presence of—

}	CHARLES OLIVER,
	Commissioner.
}	W. M. FEHON,
	Commissioner.

H. McLACHLAN.

R. R. P.
Hickson.
19 Oct., 1897.

2. *Mr. Wright.*] Have you any knowledge of this country? I know the country between Narrabri and Moree; but I have not been out as far as Pilliga.
3. Of course you can give the Committee no information in regard to the estimates which you have just submitted? No; they are the estimates of the Railway Commissioners.
4. Do you know if the country between Narrabri and Pilliga is good country? So far as I have gone over it the soil is good.
5. Is any part of it low-lying and subject to inundation? Part of it is low-lying; but Mr. Deane in his estimate has made provision for protecting the line against inundation.
6. Can you give the Committee any information as to the number of roads in the district and their annual cost? I will obtain that information.
7. *Mr. Trickett.*] Do I understand that there has been much agitation for this railway? There has been a good deal of agitation for a railway to Walgett.
8. I suppose you have none of the petitions which were sent in by the residents? Not with me; but they are available in the Department.
9. Do they contain any information which would be of use to us? I will send you a *précis* of them.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works,
sworn, and examined:—

H. Deane.
19 Oct., 1897.

10. *Vice-Chairman.*] Have you a statement to make to the Committee? I have some plans to hand in. I hand in a compilation of parish maps to the usual scale, a plan of the line to a 10-chains scale, and a longitudinal section—the horizontal scale being 10 chains to an inch, and the vertical scale 100 feet to the inch. I also hand in the Book of Reference.
11. *Mr. Hoskins.*] Have you been over the country between Narrabri and Pilliga? I have only been a few miles beyond Narrabri.
12. Has a careful survey been made of this country? Yes. The country is very flat, but a number of water-courses more or less important have to be crossed.
13. Do you think you have sufficiently calculated the probable cost of making provision for draining away the water in time of flood? Yes. The flood-waters of the Namoi in some places reach out to long distances; but I shall provide sufficient earthworks to keep the line above flood-level, and sufficient waterways to carry off the water flowing across the line.
14. Do you think that the line can be sufficiently secured from flooding during times of heavy rainfall for the amount you have set down? Yes.
15. You propose to construct a light line somewhat similar to those we have already had before us? Yes.
16. Will you experience much difficulty in getting timber for sleepers in the district? No. There is an ironbark forest on the south side of the river.
17. How far is Pilliga from Walgett? Fifty-eight miles.
18. From what you know of the country, would a line to Pilliga attract the trade of the large district of which Walgett is the centre? I am not very well versed in the question of traffic routes.
19. You would not cross the Namoi at all? No. I propose to keep on the south side of the river all the way.
20. Therefore you will have no large bridges to construct? No.
21. *Mr. Clarke.*] There will be a considerable loss upon the proposed line? Yes, according to the calculations of the Railway Commissioners.
22. What is the nature of the country? As to that I would refer the Committee to page 17 of the report of Mr. Jones, Examiner of Public Works Proposals. The report is dated 17th June, 1891. Mr. Jones was appointed by Mr. Bruce Smith to inquire into certain railway proposals.
23. Does he describe the country? Yes, on page 17 of his report. I have also short reports from the surveyors who laid out the line. The line was surveyed in 1884, the surveyors being Mr. Carter and Mr. Harwood. In a report to the Engineer-in-Chief they say:

The flood-level shown on this section has been ascertained only after considerable trouble, and may be relied upon as being correct, much valuable information in connection therewith having been given by the owner of the property through which this line passes, and who has resided in the vicinity for the past thirty-five years. It will be seen that several swamps and creeks have been crossed by this line, which were not shown on the trial plan.

We have been depending upon these flood levels in laying out the line. Mr. Harwood speaks about ironbark, belar, and pine being obtainable along the route. He says in a report:

Timber.

Ironbark.—There would be no difficulty in obtaining any quantity of this timber, suitable either for fencing, sleepers, or bridges. For the latter it would have to be drawn a few miles, as the trees near the line are mostly pipey, and of no great length in the barrel. In Robertson's forest timber reserve, No. 1,104, there is an unlimited amount of this kind of timber.

Belar.—Very plentiful along the line, suitable for fencing rails.

Pine.—Can be obtained at many places close to the line. There are pine forests near the round swamp, and near Pilliga.

Ballast.

Stone.—Procurable only in the neighbourhood of Narrabri, where there are knolls of porphyritic basalt. The distance from these to the railway station would be about 6 miles.

Shingle.—In the bed of the Namoi River, near Molle Station, there are some long but superficial shingle beds.

Burnt clay.—There would be no difficulty in getting clay from the banks of several of the creeks, and the scrub between the fence widths could be used for burning it.

Mr. Carter reports on the 28th November, 1884:—

Having now completed the plan and section of my portion of the trial survey from Narrabri to Walgett, namely, from the town of Walgett back to a junction with Mr. Harwood, 35 miles from my point of commencement, I have the honor to report as follows:—The district traversed by this portion of the line consists entirely of plains, for the most part destitute of timber, what little exists being of a stunted growth, and quite useless for any practicable purpose. No streams are crossed, but water can be obtained at Walgett from the river Namoi, on which the town is built. At Come-by-Chance, a small settlement 30 miles from Walgett, a supply of water could also be obtained at a little cost, from a lagoon half a mile to the west of the line. No ballast is procurable in any part of this district, nor do I think from any place nearer than Narrabri.

- I know, however, that there is ballast at Molle. Mr. Carter then refers to the fact that in a rainy season the surface of the plains is covered for many miles by flood water from the river Namoi. H. Deane.
 24. Then there would be no difficulty about getting timber? No. 19 Oct., 1897.
 25. Do you propose to ballast the line as you ballasted the line from Narrabri to Moree? I should like to ballast part of it. My estimate is for the ballasting of one-fourth of the line. The ballasting would be used in the station yards, and on those other portions of the line where it is absolutely required.
 26. Would there be any difficulty in getting ballast? No. Although there is no ballast at the further end of the line it would have to be run out on the contractors' waggons from Narrabri to Moree.
 27. If the proposed line were constructed, would it interfere with the line from Coonamble to Walgett? If a line were made from Coonamble to Walgett there would, I think, be very little necessity for this line.
 28. And if this line were made, I suppose there would be very little use in making a line to Coonamble? I think Coonamble would support itself in any case. Even if this line were made, I should say that the line from Warren to Coonamble ought to be made.
 29. According to Mr. Jones' report there is very little agricultural settlement along the proposed line? Very little.
 30. It is chiefly a grazing district? Yes.
 31. Is there any likelihood of agricultural pursuits being followed there? So far as my experience goes, it is too far west for agriculture. The soil in some places might be suitable; but the rainfall is too uncertain.
 32. Mr. Jones says that the population to be served between Narrabri and Walgett on the south side of the river did not exceed 6,000 people. That was six years ago. Have you any idea whether the population has increased since then? No, I could not tell you anything about it.
 33. Mr. Trickett.] Will you kindly read to the Committee your detailed estimate of the cost of the line? If you will allow me I will first read the description of the line:—

Narrabri to Pilliga Railway.

(Length, 56 miles; estimated cost £128,650, or £2,297 per mile, exclusive of land and compensation).

This line begins at the west end of Narrabri West Station, at 251 m. 75 ch. from Newcastle, and runs nearly parallel to and to south of Travelling Stock Reserves Nos. 1,227 and 1,116 to Wee Waa. Here it follows the course of the Namoi River, about 3 or 4 miles to the south of it, ending at Pilliga at 307 m. 75 ch. from Newcastle.

The country is flat and the grades easy, and Crown land, principally railway reserve No. 1,945, is occupied almost throughout.

The Book of Reference will show that the line goes through very little alienated land.

NARRABRI TO PILLIGA.

Estimated cost of a single line of railway 56 miles in length with 60-lb. rails. Ruling grade 1 in 100. Sharpest curve, 20 chains radius.

Description.	Estimated cost.	Average per mile.
	£ s. d.	£
Earthworks	10,807 15 0	193
Timber bridges and small timber openings	11,685 6 0	209
Level crossings, cattle stops, and fencing	1,620 0 0	29
Permanent-way materials	34,935 6 0	624
Freight	8,952 6 0	160
Laying at 1s., £4,928	30,553 12 0	546
Ballasting, (½ in.) @ 4s., £4,928		
Sleepers @ 3s., £20,697 12s.		
Station works including sidings	4,231 10 0	76
Station buildings, passenger buildings, £500; shelter sheds, £200; passenger platforms, £600; station-master's houses, £400; goods sheds, and platforms, £600; loading banks, £500; trucking yards, £740; 20-ton weighbridges, £550; 5-ton cranes, £400; engine-shed, £500; carriage-shed, £200; turntable, £550; coal stage, £150	5,890 0 0	105
Water supplies	3,000 0 0	54
Gradient and mileage posts	840 0 0	15
Telegraph	840 0 0	15
Miscellaneous	1,000 0 0	18
Cost of works	114,355 15 0	
Engineering and contingencies, 12½ per cent. nearly	14,294 5 0	255
Total cost	£128,650 0 0	
Average cost per mile	£2,297 6 5	

34. How does this line compare as regards its cost per mile with the Narrabri to Moree line as completed up to date? It will work out at about the same.
 35. Is that including the £4,000 spent in providing additional waterways on the Narrabri to Moree line? Yes, it will work out at about the same. The extra waterways on the Narrabri to Moree line only amount to about £60 a mile.
 36. You have put down 3s. each for sleepers;—is not that a high price to pay for sleepers in that district? We paid 2s. 6d. and 2s. 3d. for sleepers on the Moree line. Of course there is the adzing to be reckoned in; but it is a full price.
 37. Will you get a better class of sleepers? No.
 38. Then there may be some saving in connection with this item? Yes.
 39. On the Narrabri to Moree line, you were able to use some old rails which had been re-rolled? No.
 40. Was not that originally contemplated? Yes; but the estimate was adjusted so as to provide for the cost of new rails.
 41. You will use new rails upon the proposed line? Yes.
 42. Rails of what weight? Sixty-pound rails. I think that 60 lb. is a satisfactory weight for rails where additional sleepers are put in.
 43. And with slow trains? Yes.

- H. Deane.
19 Oct., 1897.
44. At what rate will trains be able to travel upon the proposed line? I do not think that any time-table has been worked out; but it is generally understood that the limit of speed upon these new lines will be 20 miles an hour.
45. Is it proposed to fence the line? No.
46. Trains will only be run in the day time? Yes.
47. I suppose there will not be many stations? I have allowed for about six sets of sidings and stations.
48. What have you allowed for stations and sidings? For station works—that is, the earthworks, metalling, permanent way, and sidings—I have allowed £4,231 10s.
49. For that amount do you provide loading places for wool? No. In another item I provide for station buildings, shelter sheds, goods sheds, loading banks, trucking yards, trains, turn-tables, and so on. For that I have put down £5,890.
50. Why is it that you have to expend so much upon providing water supplies? You must have a couple of stations at which you can get water. You may take it from the river or from the creeks; but in any case some works will be necessary. If you get it from the river, you must lay lines of pipes. I do not think that the amount I have put down—£3,000—can safely be reduced, though I think it is ample.
51. Do you consider that you have made a liberal allowance for the whole line? Yes, I think so.
52. Where are the gentlemen who surveyed this line? I do not know where Mr. Harwood is; but Mr. Carter is a member of the firm of Carter, Gummow, & Co.
53. The line seems to be taken very close to the river; is that an advantage? I do not see that it is any disadvantage; it has been kept clear of floods.
54. Do you know if Pilliga is such an important centre that it is necessary that there should be a diversion in its direction, instead of going straight to Walgett? I think it will be found cheaper to go round the bends of the river, and to keep on the same side, than to cross at Wee Waa and at Walgett.
55. Keeping on the south side of the river, you would only have to cross the Baradine Creek? That and the Brigalow are the only long creeks; but there are other creeks of importance. Below Narrabri the river is very troublesome to cross. I have been down it a good many miles, and looked at various places.
56. What is the need for the elbow in the line near Wee Waa? To keep the railway out of flood reach. There are swamps in between that portion of the line and the river.
57. Does much water drain to the Namoi from the country between Narrabri and Gunnedah? Yes, several creeks of importance cross the railway. The country on the southern side of the river is higher than that on the northern side. We have had a survey made of a line between Narrabri and Coonabarabran, and the country through which it passes is very rough.
58. *Mr. Lee.*] Why do you go on the south side of the river instead of on the north side? To avoid crossing the river, and to make sure of sounder ground. On the north side of the river you get more black-soil country than on the south side.
59. But is not the country better on the north side? Yes, for pastoral purposes.
60. Then, by going on the south side, you gain no other advantage than that of avoiding low-lying country? Yes. The floods run out much further at the north side of the river.
61. What portion of the line between Pilliga and Narrabri is subject to floods? I cannot speak from a personal knowledge of the country; but I believe that the line has been taken along the edge of the flooded country.
62. Is it possible to take a line from Narrabri to Pilliga, without going through flooded country to some extent? Yes, only where you cross the creek you get flooded country.
63. Is not the whole of that country subject to floods? I do not think it can be said to be subject to floods. The line is kept at some distance back from the river and away from floods.
64. Is it to be considered a surface line? Yes.
65. Then it is not to be banked up? Where there is a likelihood of its being flooded I should raise it above the surface.
66. Upon an embankment? Upon an embankment, or upon piles.
67. Will there be much piling to do? Not an extraordinary amount. The worst creek to cross is the Brigalow Creek, a few miles out of Narrabri.
68. Do you think that the line will be more difficult to maintain than the Moree line? I do not.
69. The country is somewhat the same in both cases? A good deal of the country between Narrabri and Pilliga is harder and more sandy than that between Narrabri and Moree.
70. The proposed railway would be closer to the main watercourse? Yes.
71. What experience has been gained by leaving lines unfenced? So long as the traffic is conducted in daylight there is no risk.
72. Have any losses been incurred and any claims made against the Department, because of accidents upon unfenced lines? No.
73. No objection has been raised against them? There has been no representation on the part of the Railway Commissioners to the effect that future lines should be fenced.
74. I suppose the Moree district would test the matter as well as any other, because of the number of sheep depastured there? Yes; the matter would be thoroughly tested there.
75. Do you know whether there would be a train a day upon the proposed line? I do not know.
76. In estimating the annual cost of the working of the line, would it not make a considerable difference if the train ran only three times a week instead of six? Yes.
77. If the estimate is framed upon a tri-weekly service, and the trains have to run twice that number of times, the estimate should be largely increased? Yes.
78. I notice that the Book of Reference shows that the line goes through seven freeholds;—do you know if it passes through freehold estates for any considerable distance? No. The freeholds are for the most part small. The first freehold is at a point 262 miles from Sydney—an 160-acre block—and the line goes through it for a distance of about half a mile. Through the next block, No. 8, we only go about 7 chains.
79. And the next? About a mile.
80. Then No. 19? That is at 283 miles from Sydney. The line goes through that property for about 22 chains.
81. Then there is No. 25? That is at 287 miles 60 links. The line goes through it for a distance of 7 chains.
82. Then there is No. 26? The line goes through it for about 7 chains.

H. Deane.
19 Oct., 1887.

83. Then there are portions 35 and 36 near Pilliga;—do you know if the line would interfere much with that property, which, I believe, is used as a racecourse? No; it only goes through a very small corner of it, and it would only have to be moved about 3 chains to avoid it altogether.
84. Although that land is spoken of in the Book of Reference as Crown land, it is vested in trustees, and the claim would be made by these trustees for any damage that was done to it? Well, I think that the line could be made to avoid it altogether.
85. I notice that the line passes through a large number of settlement leases;—what provision has been made for dealing with those cases: the lessees of this land have the right to alienate a certain portion of it? I have made no provision for compensation of any kind. I have not dealt with the question of compensation at all.
86. You are not able to say what provision the Crown has made in connection with resumptions of this kind? No; but if this land were as valuable as freehold to resume, it would only cost a very small proportion of the whole cost of the line.
87. Yes, but inasmuch as the line is estimated to be a non-paying one, it should be loaded with as little resumption as possible. Will the Land Valuer be able to give us any information in regard to this matter? I do not know.
88. I suppose you have designed as cheap a line as possible consistent with safety? Yes.
89. Could you submit a line to us which would answer the purposes of the district but at a cheaper rate? I do not think so. I should not like to be asked to do so.
90. If the present gauge is to be maintained this is the cheapest line that you can recommend? Yes.
91. The country through which it goes is quite flat? Yes.
92. And continues so as far as Walgett? Yes.
93. If it can be shown that the traffic will not pay interest and working expenses upon the cheapest line that you can construct, using the standard gauge, will you be prepared to consider the advisability of using a narrower gauge? I would not recommend the use of a narrower gauge.
94. You would not depart from the standard gauge under any circumstances? I would not depart from it in this case, or in any similar case. The saving would not be sufficient to pay for the inconvenience.
95. Do I understand you to mean that this is not the country in which a departure from the standard gauge could wisely be undertaken? Yes.
96. What are the prospects of our being able to make these extensions upon the standard gauge, if they cannot be constructed for smaller amounts than your estimate? Well, it is not part of my business to give an opinion as to the advisability of making these lines. My function relates merely to the construction of lines.
97. The extension of the railway into distant districts is so intimately connected with their financial prospects that we have to consider these matters. It becomes a question for us to consider whether we cannot construct railways at a cheap enough rate to enable them to pay? If it were possible to save £300 or £400 per mile by narrowing the gauge, the increased working expenses of the line would more than counterbalance that saving. To extend a narrow-gauge railway from Narrabri for 50 or 100 miles would mean the construction of new rolling stock to work the line. The station yards would have to be longer and the sidings would have to be longer. Thus the cost of stations upon the narrow-gauge line would be as great as the cost of stations upon the standard-gauge line; while at the junction of the two systems, you would require to have a double set of sidings.
98. The necessary additions to existing stations would more than swallow up any saving? I think so.
99. Under what conditions could a narrow gauge of railway be favourably considered? In the case of a mountain line, having a mineral traffic, I should consider that there might be circumstances justifying the use of a narrow gauge.
100. These lines are suitable for heavy country rather than for flat country? Yes. I should not recommend them for flat country under any circumstances. I cannot think of any circumstances under which they would be useful in flat country.
101. *Mr. Hoskins.*] Are you aware that means have been devised for moving the body of the truck from a standard-gauge under-gear to a narrow-gauge under-gear? Yes; but it would be out of the question to do that where the gauges differ very materially. On the standard gauge we have trucks to carry 8 tons, and bogey trucks to carry 20 tons or more. You could not very well put these trucks on to under-gear suited for a narrow gauge, because it would be too large. On the other hand, the bodies of narrow-gauge trucks would be too small for use on a standard-gauge line.
102. *Mr. Lee.*] I presume that the difficulty of transshipping stock from one gauge to another would be a great objection to the use of two gauges? Yes.
103. I understand that latterly this difficulty has been accentuated on both our northern and southern boundaries, and that great inconvenience and loss have resulted through having to take stock out of one train to put them into another? Yes.
104. In many cases stock have travelled long distances to avoid this transshipment? Yes; and I think that if the proposed railway were constructed it would be found that a great deal of stock and produce would be sent to Narrabri to avoid transshipment and would be lost to the extension.
105. You would not consider any alteration of gauge in connection with the proposed extension? I would not.
106. Whatever may be said in favour of a narrow gauge, you are strongly of opinion that it is not suitable for the class of country and under conditions such as we are considering? No; there would be no gain in using it here.
107. Have you any knowledge of what these lines have cost in other parts of the world? Yes; I have collected information in regard to them.
108. *Mr. Hoskins.*] When you were in Europe a year or two ago did you see any of the narrow-gauge lines that they have on the Continent? Yes; I saw the Decauville system at work.
109. How do the narrow-gauge lines answer there? They answer very well as local feeders, or to run to separate centres. They do very well to bring produce to market towns.
110. I suppose you know that many engineers in England consider that light narrow-gauge railways might with advantage be introduced into England? I think there is a great deal of opposition to them. Some people have always advocated the narrow gauge, but I think that those who hold to the standard gauge are in the majority. I can see no fatal objection to the narrow gauge under special circumstances, where a standard gauge would be so costly as to be prohibitive.

- H. Deane.
19 Oct., 1897.
111. A narrow-gauge line should be altogether independent of a standard-gauge line, so that the rolling stock and everything connected with it may be worked quite separately? Yes. I take it that the great advantage of a narrow-gauge railway is in the small curves that you are able to use. Of course, that would be no advantage in flat country. The drainage, which is a great question in connection with the proposed line, would be the same whether you had a narrow gauge or the standard gauge, and the station accommodation would be about the same in either case. Any saving that would be effected would be chiefly in the width of the earthworks and in the lightness of the rails.
112. Would there not be a saving in the bridges? Yes; but not a very great saving.
113. I suppose you have read of the narrow-gauge line in Wales? Yes; I have been over that line.
114. It works very well? Yes; but it is a line of a special character.
115. Many people have thought that we want lines of a special character? The Festinogg line has all its grades in the one direction. The slate trains are brought down from Festinogg with the use of the brakes only. All that the engines are required for is to take the empty trains back. Of course, there is now a considerable amount of passenger traffic there too. I do not know that there is any place in New South Wales where the conditions are the same as they are at Festinogg.
116. *Mr. Lee.*] Would it cost as much to maintain a narrow-gauge line as to maintain a standard-gauge line? I think so, very nearly.
117. What would be the saving upon the proposed line if the narrow gauge were used? If you used 60-lb. rails, which they use in Queensland, the saving would be practically nothing.
118. Would you save £300 per mile? Not with 60-lb. rails.
119. Assuming that £300 a mile could be saved, the total saving would be £16,800, and the annual saving would be 3 per cent upon that amount, which would only be a small proportion of the whole annual cost of the line? Yes.
120. If we saved £20,000 upon the whole line, it would hardly affect the prospects of the line, looking at it from the Commissioners' point of view? Yes; but we could not save £20,000 on the line. Mr. Stanley and others who have made comparisons between the standard and other gauges assume that much lighter rails than 60-lb. rails are to be used.
121. There is very little difference in initial cost between the lines you are making and the 3-ft. 6-in. lines which they make in Queensland? Very little.
122. I suppose you do not know what the difference is? There would be no saving in rails, and the cost of bridges would be about the same. The saving would be in the width of earthworks, and in the length of sleepers.
123. Are you of opinion that £300 a mile could not be saved on the proposed line? Yes; unless you used a 2-foot gauge. You could save it then.
124. Could you put down a 2-foot or a 2-ft. 2-in. gauge for £1,800 a mile? I think so; but the rails would be much lighter than I propose to use, and to carry the same traffic the trains and therefore the station-yards would have to be longer.
125. Before you could recommend the introduction of the narrow gauge into this country there must be special conditions which do not exist in this case? Yes.
126. *Mr. Trickett.*] Mr. Jones in his report speaks of the land on the north side of Namoi as less liable to floods than the land on the south side of the river;—has a line been surveyed on that side of the river? No; there has been no survey made there.
127. Will you look into the matter? Yes.

WEDNESDAY, 20 OCTOBER, 1897.

Present:—

THE HONORABLE FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and further examined:—

- H. Deane.
20 Oct., 1897.
128. *Vice-Chairman.*] You have some information to give the Committee? I was asked yesterday to obtain information upon two points. One was upon the liability to flood of the country on the northern side of the Namoi; and the other had to do with the survey between Woolabra and Collarendabri. I have not been able to get information in regard to the country on the north side of the Namoi; but I have ascertained that Mr. Corbett, formerly of the Roads Branch, and now in the Sewerage Construction Branch, has been in the district, and I have asked Mr. Davis to get him to call to-morrow morning. I will then see what information he has, and if it is thought desirable the Committee might examine him. With regard to the Collarendabri line, a survey has been made and an estimate prepared. The estimate is divided into two parts. The first part includes a length of 69 miles 64 chains, starting from Woolabra, on the Narrabri to Moree line. That part reaches up to the edge of the flooded area of the Barwon. The second part goes entirely through flooded country, and is 10 miles 72 chains in length. The estimate was divided because I thought it would probably be decided, if the construction of the line were sanctioned, to stop on the south-eastern side of the Barwon. It is proposed to use 60-lb. rails. The ruling grade would be 1 in 100, and the sharpest curve would be a curve of 15 chains radius. There is only one such curve, and that is at the junction of the main line. The total cost of the first part would be £160,362, or £2,297 9s. per mile. The second part would cost £47,436, or £4,351 18s. 6d. per mile, the extra cost being due to the timber construction of the viaducts. Included in the total is a sum of £10,391 for the openings over the main channel of the Barwon, and £10,650 10s. for other timber openings. I have included in my estimate of the first part of the line the cost of the station arrangements at Collarendabri, because, whether the line stops on this side of the river or is continued across the river, that station would have

have to be constructed. The cost of the second part of the line is merely the cost of carrying the line on into Collarendabri and making a small station on the southern side of the river.

129. Without the cost of the stations, I suppose there would be a considerable reduction in the estimate of the first section of the line? Yes; if you took out the cost of the Collarendabri station it would make a difference. The total cost of station works and station buildings on part 1 of the line would come to £207 per mile. That includes the cost of intermediate stations.

H. Deane.

20 Oct., 1897

Hugh McLachlan, Secretary to the Railway Commissioners, sworn, and examined:—

130. *Mr. Farnell.*] Have you studied the proposal now before the Committee? The Railway Commissioners have considered it very carefully. In their report they say that the line would show a considerable loss, and, therefore, they do not recommend its construction.

H.
McLachlan.

20 Oct., 1897.

131. Have you anything to add to the report? No; it expresses the opinion of the Commissioners.

132. I suppose the Commissioners are satisfied to take the figures supplied to them by their officers? Yes. It would be better for the Committee to examine some of these officers. The details of traffic have been estimated from figures supplied for the most part by Mr. Harper.

133. From your knowledge of the country through which the proposed railway will go, do you think the line would affect the proposed line from Byrock to Brewarrina? I have not been through the country; but I believe the line would have a slight influence upon the Brewarrina line. Mr. Harper shows that the goods carried by river during the year 1895 amounted to 790 tons, and the wool to 2,055 tons. That traffic would pass Brewarrina.

134. It is possible that a good deal of the traffic that would otherwise go to the Brewarrina line will be diverted by the proposed line? Yes; but the line which would take most traffic from the proposed line is the proposed line to Coonamble and the line to Collarendabri. The first section of the Coonamble line, that from Noverre to Warren, is now nearing completion, and I believe the Government have under consideration the extension of the line from Warren to Coonamble.

135. Will the railway system receive the full benefit of the traffic from this district if the proposed railway is constructed? There would be no competition to meet. We should get all the traffic.

136. *Mr. Wright.*] I suppose, under no circumstances, would it be wise to construct a line from Narrabri to Pilliga, and another line from Byrock to Brewarrina? The Commissioners are of opinion that neither line should be constructed.

137. Under no circumstances would they favour the construction of both lines? No.

138. One would unquestionably compete with the other? Yes; though to a comparatively small extent. The Collarendabri and the Coonamble lines would compete with the line.

139. Any line that brings Walgett nearer to Newcastle than it is now, will attract traffic from the Brewarrina district? Yes. I should not like to say too much about the Walgett line, because a definite proposal to extend the railway to Walgett has not been considered by the Commissioners; but in 1889 they said that they felt that it would be better to connect Walgett with the Western line, rather than with the North-western line.

140. Lines approaching Walgett from the west and from the east would compete against each other? Yes.

141. *Mr. Clarke.*] Would the proposed line interfere in any way with the line from Warren to Coonamble? Yes; both lines would be draining the same country. I do not think that Coonamble is more than about 60 miles from Pilliga in a straight line.

142. Would a line from Coonamble to Walgett interfere with this line? Yes; still more so.

143. You know nothing of the country through which the proposed railway would go? I have not been through it; but officers of the Department have been over it.

144. *Mr. Lee.*] The Commissioners have now reported against two proposed routes to connect the railway system with the Darling;—have they any reason for reporting against these proposals other than that the lines would not pay? Their main reason is that the lines would be unprofitable.

145. Very great importance is attached by them to the possibility of competition by a navigable river? Yes.

146. There might be competition at a place like Brewarrina; but do you think that the river could compete with the line under consideration? As a matter of fact the probable receipts from the proposed line have been calculated upon the most favourable basis, and no reduction has been made on account of river-borne traffic to Walgett. At Pilliga there is not much traffic; but higher up there is a good deal of traffic which would be affected in good seasons by the proposed line.

147. Is it likely that wool would be sent by steamer from above Walgett to Bourke, a long and dangerous river journey, and then sent by train from Bourke to Sydney, a distance of 500 miles, when it could be sent by train from Pilliga to Sydney, a distance of only 400 miles? I think that under favourable conditions the traffic would come to Pilliga.

148. Therefore, this river-borne traffic which has been mentioned would not be lost to the railway? The Commissioners have credited the railway with that traffic. If, however, there were a good river, and the road between Walgett and Pilliga were in a bad condition, it is likely that wool would go by steamer to Bourke, in order to get a market in Sydney.

149. But the river rate from Walgett to Bourke would not be less than £1 a ton? I should not think so.

150. Then there are all the dangers and delays of a long journey, and the high insurance rates? The Commissioners have allowed for this traffic in any case.

151. The only reason why traffic might go by river would be the distance from Walgett to Pilliga? Yes.

152. If the line were taken to Walgett there would not be the same danger of loss of traffic? No.

153. If the traffic went down the river the loss on the line in any one year would be £5,600 instead of £4,300? The Commissioners say that there is a possibility of £1,300 worth of traffic being taken by the river.

154. That would make the loss on the line £5,600 a year? Yes.

155. Do you see any immediate prospect of the line paying? I do not think there is any prospect of the line paying for a long time to come.

156. In the opinion of the Commissioners, does this part of the country require opening up? No; I think not. They do not see any prospect of its immediate development. Of course, if it became an agricultural district we should at first lose a certain amount of traffic, because we now send a great deal of agricultural traffic to the district.

- H. McLachlan. 157. Do you think there is a demand for railway convenience, in the interests of those who have pioneered that country and have settled there, and to create further settlement? Not at the expense of the country.
20 Oct., 1897.
158. Has any special reason been brought before the Department for the construction of this line? Not to my knowledge. These matters are referred to the Commissioners by the Minister.
159. Both the Commissioners and their officers must, by this time, have an intimate knowledge of the whole Colony, and should be in a position to know where any pressing demands for a railway exists; they believe that if this line were made there will be an annual loss to the country, and that there is no prospect of the line paying within the near future? Yes; of course they look at the financial aspect of the question more than at any other.
160. Do they oppose this extension because they think the railway should tap some other point on the Darling? Their previously expressed opinion is that the best connection would be from the Western line through Coonamble to Walgett.
161. Have they favoured any connection from the Moree line? They have favoured an extension from Woolabra to Collarendabri.
162. But they think that there is no justification for the proposed extension? That is so.

FRIDAY, 22 OCTOBER, 1897.

Present:—

THE HONORABLE FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).	
The Hon. JAMES HOSKINS.	HENRY CLARKE, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	CHARLES ALFRED LEE, Esq.
FRANK FARNELL, Esq.	

The Committee further considered the proposed Railway from Narrabri to Pilliga.

John Herrick Corbett, Resident Engineer, Department of Public Works, sworn, and examined:—

- J. H. Corbett. 163. *Mr. Clarke.*] Are you well acquainted with the country between Narrabri and Pilliga? Yes.
22 Oct., 1897.
164. And the proposed line of railway? Yes.
165. Have you a written statement prepared? None whatever.
166. Can you give the Committee any information as to the country through which this proposed line would pass? I can give no information except as regards floods.
167. Is the proposed line liable to floods? Yes; from Wee Waa to Pilliga.
168. But only in flood time, after heavy rain? Yes; after heavy rain.
169. Are you aware that the proposed line is to be made chiefly without being ballasted? No, I am not.
170. Would the line, not being ballasted, or being partially ballasted, be secure, or safe? It would not be secure or safe in my opinion.
171. Do you think it would require ballasting the whole way from Wee Waa to Pilliga? It would.
172. But if the Engineer-in-Chief thinks it would be safe to have it partially ballasted, would you be inclined to dispute his opinion? Looking at the section I should say that it would all require ballasting.
173. Would that plan give you an idea as to how the railway would be constructed? Yes; it is a surface line, apparently, and it certainly requires ballasting.
174. You still think it would not be safe for a portion of the line to be constructed without being ballasted? From my knowledge of the country, I think the whole of it would require to be ballasted from end to end.
175. That is contrary to the opinion of the Engineer-in-Chief for Railway Construction? I am sorry for that; I cannot help that; that is my opinion.
176. Is ballast easily obtained in that district? No; indeed it is not.
177. Where would it have to come from? It would have to be brought up, I should say, from the main line between Werris Creek and Narrabri West.
178. Is there much settlement there? Very little. Mind, I am speaking of the main-road track.
179. Say 10 or 15 miles on each side of the proposed line? Then you cross the river on the right-hand side. It is only from 4 to 6 miles from the river all the way down. Of course there are large stations there.
180. But not a large population? No.
181. It is purely a pastoral country? That is all, and most of it scrub.
182. Not fitted for cultivation or for settlement? I daresay it would be if it were cleared—that is, parts of it.
183. But would the revenue from the traffic depend upon the wool, or anything of that kind; it would not be agricultural produce? No; I cannot speak as to the traffic, more than to say that the teams come up that road.
184. Are you aware that, if this line is constructed, there will be a considerable loss? I am not.
185. £4,350 in round numbers? I have not gone into that question at all.
186. Still you think there would be sufficient traffic on this line, say in the future, to pull up this loss? That may be; but I cannot say.
187. Can you give an opinion? I can give no opinion one way or the other.
188. Then you cannot give an opinion, except as to what you have already stated? The floods: that is all I was asked to give an opinion on. I know nothing about anything else; but I know the line is liable to be flooded the whole way down.
189. *Mr. Lee.*] Have your duties taken you to that district very much? I was there for a little over two years.
190. Between what points? Between Narrabri and Pilliga.
191. What were you doing there? I was Resident Engineer in charge of the roads, under the Roads Department.
192. Have you seen that country under flood? I have.

193. Would you be good enough to describe to the Committee, on the wall map, using names to locate your positions, the extent of country that you have seen flooded? From within 5 miles east of Wee Waa down to Pilliga. J. H. Corbett.
22 Oct., 1897.
194. Have you seen the whole of that country under flood at one time, following the railway route? Yes.
195. More than once? Oh, yes.
196. More than once in two years? I have seen it three times in two years, I think. The floods are very sudden.
197. That is during the last two years? That is within six months.
198. Have there been any exceptionally high floods during that period? One was a high flood.
199. When was that? That was about eighteen months ago—just before the drought commenced.
200. I suppose the water would be the overflow from the Namoi River? Not at all. The water comes down from Baradine Creek and other creeks to the south, not shown on this map. There are eight bridges between Wee Waa and Pilliga not shown on this map.
201. Where does the road run between the two points? I should say between the red line and the river, that is, on the south side of the river.
202. Has your road been covered with flood-water? Yes.
203. Is it a made road? No.
204. Not macadamised? Oh no; it is a mere corduroy road.
205. What would be about the general depth of water during a flood of that kind? It varies very much.
206. Say the highest flood you have seen? I should say, in some places only 18 inches; in other places, 3 feet; in other places, 10 feet; and in other places you cannot pass at all during a flood.
207. Would the highest point of that line that you have described be covered to the depth of 18 inches? That I cannot say.
208. Have you not found any old flood-levels in that district? Many of them.
209. Did you find any showing a greater height than you have ever seen? I do not think so. I have seen the highest and taken the highest at two bridges.
210. Where were those bridges? One close to Pilliga, and the other near Wee Waa.
211. Were they both high-level bridges? They are supposed to be above flood-level.
212. There has been no flood so high since? No.
213. What area of country would a high flood cover? I could not tell you the number of acres.
214. But what distance in miles? About 4 or 5 miles back from the river in places.
215. Do we understand that that country would be almost one continuous sheet of water under a high flood? Yes, certainly.
216. And how long would the water remain? Not long—perhaps three or four days.
217. But quite long enough to suspend all traffic? So it does; the coaches are very often stopped.
218. Then, if the running track of a railway is to be kept above flood-level, what height, in your opinion, should it be kept above the surface of the ground? I should say the section I have looked at ought to be raised about 3 feet.
219. Have you known the Namoi to overflow and flood the country on that side? Yes, I have, but not from local rains. The floods come down from above suddenly, and spread over the country down below.
220. To have a railway track that would be available for traffic in all weathers, it would have to be at least 3 feet above the surface of the ground? So far as I can say, from this section.
221. That is the section supplied by the Engineer-in-Chief for Railway Construction? Yes.
222. Can you tell us what effect the flood-waters have upon the embankments there, what is the nature of the soil—how does it stand? It is all sand, nearly the whole way.
223. Therefore the subsidence must be very great after a flood? But you are speaking now of newly made banks.
224. Yes? They would have to be made up $1\frac{1}{2}$ inch to the foot. Supposing the bank were 3 feet high, you would have to add $1\frac{1}{2}$ inch for each foot in height.
225. That would be another $4\frac{1}{2}$ inches? Yes.
226. Practically about 3 feet 6 inches? That is about it.
227. Then I want to know whether the nature of that soil would stand contact with water? Certainly not, unless there are plenty of culverts and bridges made. It would not stand as a dam.
228. Is not the soil of a friable nature—that is, it crumbles away easily? I should say it would crumble away.
229. You have experience on your roads? Yes; and the soil all goes away the first flood.
230. So far as the roads are concerned, the embankments are generally washed away? We never make embankments; we simply cut down trees, and make a corduroy road between the bridges. We avoid making embankments, because they will not stand.
231. That is your reason? That is my belief.
232. If that be the case, what do you think would be the position of the railway embankments? I should say that they would go at once, unless there were plenty of water-ways.
233. But admitting that there are water-ways, and knowing at the same time it will be impossible to put in waterways that would give the same scope as nature now gives to the water—because it has the uninterrupted country to run over at the present time—if you put up a railway line you practically make an embankment, do you not? Certainly.
234. Consequently you could not possibly drain the water off as effectively as nature now does? No.
235. And if the embankment is 3 feet under water, will the earthworks stand it? It will not stand it at all.
236. Will the current be too strong, or will the embankments subside? Both, unless you make openings for the water. If you make a dam of the embankment the whole of the embankment must go; but if you leave a sufficient number of openings, you are perfectly safe.
237. But if there is an accumulation of 18 inches to 4 or 5 feet of water over the face of the open country now, will there not be a much higher depth of water when this dam, in the shape of a railway line, is erected? Certainly.
238. Therefore, the conditions will be much more severe than they are now? Yes.
239. It is from that point of view I would like you to say how you think the railway line would stand the flood? I say I do not think it would stand it, unless sufficient waterway were provided.

- J. H. Corbett. 240. Do you not perceive how difficult it is to make sufficient waterways to carry off the water which nature itself will not carry off? There is no difficulty about it; it is all a matter of money.
- 22 Oct., 1897. 241. Do you think if ample waterways were made that the embankment would stand? Certainly.
242. That is to say, you do not think it would partially disappear by subsidence? I do not think so at all.
243. Well, if an earthen embankment will stand so well, why the necessity for ballasting? You must have ballast on any embankment.
244. You know there are some lines in your part of the country without ballast? I do not think there are many that will stand long.
245. From Narrabri to Moree, for instance? That has not stood.
246. A large portion of it is not ballasted? It is not all ballasted; but there is some ballast on it all.
247. In the worst places? Yes.
248. Supposing the same conditions were applied to this line? That might be; but I am not prepared to speak about that. In fact, in this part of the country, you never can tell until you build a line of railway and see where the water wants to go.
249. Is there any special reason for taking the Government road on the southern side of the Namoi? I think it is the higher of the two, taking it all through; but I have never taken any continuous levels.
250. And of course you avoid crossing the river? Yes. I have been at one or two stations on the other side—at Drilldool, for instance, which is built on a knoll—and I have seen the flood-levels there showing that the whole place has been surrounded by water; the house has been simply on an island.
251. You have been to Walgett? I have, once.
252. Is it in your district? No, it is not.
253. Have you seen the country between Walgett and Pilliga? I have; but I went to the other side of the river. I went up from Bucklebone, on the other side of the river, that being a shorter road.
254. Is it not a fact that, under conditions of heavy floods, nearly the whole of the country from Walgett to Wee Waa is under water? I cannot speak from Pilliga to Walgett; but I should say so.
255. What do the old residents say? They say it is liable to floods very often. They do not know the moment floods may come on them.
256. Are you of opinion that any special condition should be observed in making the railways into that country? I should not like to give an opinion.
257. I mean any special conditions as to their height and their being ballasted? If you provide sufficient waterway, and make the banks high enough over flood-level, you are quite safe.
258. The soil is good enough to stand? The soil is good enough, as I think.
259. Compare it with the Moree line—that would be a fair comparison, would it not? That is quite a different soil. The Moree soil is black, and this is nearly all sand.
260. The country on the north side of the river is much better, is it not, than on the south? It is lower.
261. But it is better country? Oh, far better country.
262. What is the trend of the traffic in that district—to and from what points does the bulk of the traffic go and come? From Walgett to Pilliga, and on to Wee Waa, and up to Narrabri on this side. Then there is a lot of traffic which goes the other side in dry weather. In wet weather they always use the Pilliga road, so far as I have seen.
263. Is the flow of traffic from Walgett to the railway terminus at Narrabri? I think so, unless the river rises high enough at Walgett to allow the steamers to take the wool away.
264. The usual class of loading, such as wool and station produce, comes in from there, I presume? Oh, yes.
265. Anything else? I do not think so.
266. Any minerals? I do not think so.
267. Is Narrabri a centre for much of the country west of it; take Pilliga, which is west of it, as a starting point, and look to the north, and the south, and the west; that is the country which supplies Narrabri, is it not? Yes, a great deal of it. There is a great deal comes in from Collarendabri as well.
268. Would not that go to Moree now? I suppose it will, but yet I do not think so; I think it will come into Narrabri.
269. But Moree must be much closer than Narrabri? It depends on the roads; there are large stations that do not think it worth while.
270. But those are the stations that are as close to Narrabri as to Moree at the present time? I think they are closer to Narrabri.
271. But the Collarendabri traffic must go to Moree? The Collarendabri traffic will go, of course; but there are a lot of stations between Narrabri and Moree that prefer coming in to Narrabri.
272. I suppose the greatest traffic over these roads would be in the months of December, January, and February, would it not? Well, after the shearing.
273. Would those three months embrace the shearing season? I do not think so.
274. Would from October to February cover it? Yes.
275. Is that the period of the year when you have the heaviest rains? Yes, certainly.
276. Have you known, of your own knowledge, the dray traffic to be suspended for any length of time owing to the badness of the roads? Yes, frequently.
277. I am speaking of the ordinary bullock teams that would travel over almost anything;—have you known that traffic to be stopped? Yes, I have; I have been stopped myself.
278. In your own buggy? In my own buggy.
279. And on your own road? On roads in any district.
280. As to the traffic that lies to the west of Narrabri, towards the Barwon River, and various points north and south of it *en route*, do you think it is likely to be captured by the proposed railway extension to Pilliga? Not all of it, certainly; part of it may be.
281. If that line is made, would not the Collarendabri traffic still go to Narrabri or Moree? I think so.
282. But the Walgett traffic will, of course, go to Pilliga? The Walgett traffic will go to Pilliga.
283. Take the points, say, between Wee Waa and Pilliga, but lying 40 miles to the west, and to the north, and 40 miles to the south,—do you not think, when once the wool is on the drays, it would be more likely to go to Narrabri than to stop at Wee Waa? I think so.
284. It will have to be put on the dray in any case? Yes.

J. H. Corbett.
22 Oct., 1897.

235. And the distance from Wee Waa to Narrabri is so insignificant that probably the drays will continue their journey? They will go through to Narrabri, I think.
236. Therefore, that portion of the trade will not be arrested by this proposed extension? I do not know anything about the trade; but I do not think it is likely. I think if a man once loads up his waggon, and has only 25 miles to go to a railway station, he will go on.
237. If your roads were macadamised, would that enable the traffic to proceed at all times, except in flood? It would.
238. What would it cost per mile to make macadamised roads? I would have to go into a tremendous calculation to answer that. In the first place, you could not get anything to macadamise the roads with up there.
239. Macadamisation has not been attempted there for want of material? For want of material.
290. Can you give us an approximate idea of the cost per mile? There is a very good quarry at Narrabri, and I know I had to pay on behalf of the Government something like between 5s. and 7s. a cubic yard for stuff unbroken up for metal.
291. How many yards to the running yard? One and a half.
292. Well, that would be about £650 per mile for metal? Well, I should think so; but I did not do much of that.
293. At that rate you could make a good macadamised road for £1,000 per mile? We would have to form the road first.
294. But it would not cost you £400 a mile to form the road, you know? It all depends upon what the distance is. Some parts of the road are very rough, and you have to cut through in places; other parts are very easy. It is useless to put metal on the black-soil plains, because it disappears as fast as you put it on, and sinks in.
295. Wee Waa is a small township, is it not? Yes; but it is rising.
296. How many residents are there? About 800, I should say.
297. Pilliga—how many there? With the district round about, I think about 1,100.
298. Have they progressed much since the line was open to Narrabri? Wee Waa has. When I was at Pilliga last they were building very fast.
299. Which side of the river does the coach run? On the side the proposed railway would run; on the south side.
300. Is there much delay at any time in the delivery of the mails? Yes; but only in flood time.
301. So it would appear that under ordinary circumstances the traffic would proceed in the ordinary way, except under exceptional conditions, those exceptions being floods? Yes.
302. And nothing short of a railway built out of flood reach would ever meet the difficulty? No.
303. *Mr. Hoskins.*] Have you been over the Narrabri to Moree railway? No, I have not, except as far as Edgeroi.
304. But have you walked over it to see the principle on which it is constructed? Yes.
305. I presume you are aware that the Narrabri to Moree railway is what is termed a light railway? I am.
306. Constructed at a smaller cost than the average railway—say the railway from Gunnedah to Narrabri? Yes.
307. Did you notice that the line there was made by making wide drains at the side, and taking the stuff out of those drains, and banking it up on top of the surface of the ground so as to make a sort of embankment? Yes, what we call side-cutting.
308. Did you also observe that the sleepers were much closer together than on ordinary lines? I did.
309. There is no ballast, is there, on that line, except in places? The part I saw was nearly fully ballasted.
310. But where it is ballasted it is ballasted to a very shallow depth compared with other lines? Compared with other lines it is very shallow; but there was about 9 inches on it.
311. Do you not think that, if the same principle were observed in the construction of what we call a light line of railway from Narrabri to Pilliga—that is, by having wide side-drains, and the material taken from the drains banked up so as to make a railway embankment, and the ballast, which must be scarce in that district, used only in the worst places, and the sleepers placed closer together—the line could be worked there with as great facility as on the Narrabri to Moree railway? Certainly, if plenty of waterway is left.
312. In that country, in rainy weather, there are springs, gullies and watercourses, which make the ground very rotten if there is not sufficient waterway? Yes.
313. You find that difficulty with the roads? Yes; but we do not bother about the roads; we just cut down trees and corduroy the roads. We have corduroy roads, because there is no ballast, and we could not afford to get it.
314. Then I gather that the fact of the country being flooded after heavy rains would not, in your opinion, if the line were made on an embankment with plenty of waterways, be any obstacle in the way of constructing a light line of railway? I do not think so.
315. *Mr. Trickett.*] How far is Edgeroi along the Narrabri line? About 30 miles, I think.
316. Then you had an opportunity of seeing this line? I only drove over it in my buggy along the line. They had a road made all along it, and I have often driven along that as a short cut on going home to Narrabri; but I never examined the line.
317. But I thought you might have observed what the effect of the washaways would be which we heard of? I did not see them.
318. Because you said, in answer to Mr. Lee, that the Narrabri to Moree line had been washed away? That was only hearsay; in fact, I heard it from the engineer who built the line.
319. Was it after a very heavy rainfall that the floods occurred within the last two years along the road from Narrabri to Pilliga? Yes; local.
320. A very quick rise? Just so.
321. And a sudden subsidence? Yes.
322. Is that part of the country subject to that? Yes.
323. The soil between Narrabri and Pilliga is, I understand, of a sandy character; while that along the Narrabri to Moree line is more of a red clay? It is black soil.

- J. H. Corbett. 324. Well, would not the sandy stuff between Narrabri and Pilliga be much more likely to wash away than the black soil? No.
- 22 Oct., 1897. 325. It would not? I do not think so.
326. You spoke of plenty of waterways;—would you give us an idea of what you think would be plenty of waterways? If you come to a large creek you must get the flood area, and calculate the width of your bridge so as to allow for the water to get through.
327. I am not referring to bridges; I am speaking of box-drains; is it not box-drains which they propose to put along there for railway purposes; there will not be any bridge, I understand? No, culverts. As long as the water gets away from under your line, that is sufficient.
328. Is the country of a uniformly level character;—do these flood-waters sweep over it in one big mass, or are there defined waterways? Defined waterways, nearly all of them.
329. Then the danger from a washaway would not exist over a greater part of the line, but only where these waterways occur? You can build your embankment any height as long as you give sufficient waterways over the flood-level.
330. *Mr. Hoskins.*] Although the country is called level, there is sufficient depression in the ground, if there are ample waterways, for the water to flow away readily when the rain subsides? Plenty; the water will always get away there.
331. *Mr. Trickett.*] Do you think the line would have a better chance of standing if it were built further away from the river bank? I do not know, because I have never seen the line. I have never been over it. I am judging from the old road; but I believe the railway line would run close to it all the way.
332. You are not able to give an opinion as to whether better country for the construction of a railway exists more to the south of the river? No, I am not.
333. Excepting the two townships of Wee Waa, and Pilliga, there is very little settlement along the line of route? None at all. Following the river there is none, except at Wee Waa, Pilliga, and Walgett.
334. What is the nature of the country between Narrabri and Pilliga? All scrub.
335. Is there not almost a forest towards Pilliga, or is it scrub? There is a forest 8 miles to the southward.
336. Is it not good timber there? Very good timber is to be had there.
337. But this country it thickly scrubbed? There is nothing but scrub; no timber in it.
338. Except on towards Pilliga? That is all.
339. What is the character of the timber there? Chiefly ironbark.
340. That will be suitable for railway construction? Oh, yes—for sleepers, girders, and such things.
341. Some years ago, in 1891, Mr. Robert Jones, railway engineer, made a report upon various routes to connect Walgett with the railway system, and in dealing with the connection between Narrabri and Walgett, he strongly advocated that the line should go on the northern side of the Namoi instead of the southern side;—what do you think of that proposal? I think he was wrong; but mind, I am only speaking from driving over the country.
342. At page 17 of his report, he says:—
This line passes over ground less liable to inundation than on the south side of the river. It also serves a larger area of good grazing country, and would be within easy access from Pilliga to Wee Waa, the latter more especially. It also passes through the centre of extensive settlement on Pian Creek and Jew's Lagoon.
Do you know sufficient of the country to say anything about that? I do not know of any extensive settlement on Pian Creek; I have been down there frequently.
343. There is some settlement? There is some.
344. Is it a township? No.
345. What is Jew's Lagoon;—is there a settlement there? No.
346. There is some, I suppose? Oh yes.
347. Not very extensive? Not very extensive.
348. What about the country not being so subject to flood on the north side;—what do you think of that? Here and there he may get hillocks of sand that he will not get on the southern side; but I should prefer the southern side, because the floods are higher on the northern side. The trend of the country is down that way; it falls to the north-west.
349. Then the flooding on the southern side of the river is not occasioned by the river overflowing its banks, but by the rush of water to the river? By the rush of water through all these creeks to the river, and local storms.
350. And, therefore, on the northern side of the river you get the overflow of the whole of the river? Of the whole of the river.
351. That is why you say that that part is more liable to floods than the southern side? That is what I think, although here and there it is higher.
352. Could you give an opinion as to the character of the country there for grazing, comparing the north with the south? The southern side cannot be compared with the northern; the northern is much better.
353. You agree with Mr. Jones in that respect? Yes.
354. There is not much alienated land along this route? I think it is all Government land.
355. Therefore, the traffic to come to a railway is very much in the future;—it would depend largely upon future settlement? Yes.
356. As far as the district is at present concerned, do you see a very large revenue likely to be derived from the railway? That I cannot say; but judging from the team traffic, I think there ought to be.
357. You could not say to what extent? I could not.
358. You have not gone into any figures? No.
359. Are you able to say whether, in considering a line of railway such as this, Walgett is not the ultimate place to be looked to as the destination of the railway? I do not know; but you want to extend it beyond Walgett.
360. But do you not look upon Walgett as a place which is deserving of railway connection? I cannot say that.
361. You are not sufficiently acquainted with the railway systems of the Colony to be able to say whether or not Walgett seems to be a central spot between two lines on either side? I am aware that Walgett is a central spot; but whether it would pay to construct a railway there —
362. I am not asking about paying; but whether Walgett does not seem to be a kind of central spot with two lines on either side of it? Oh, yes.

363. I suppose you must be aware, from your residence in the district, that Walgett has for many years been agitating for a railway? Yes, I have heard of that. J. H. Corbett.
364. Have you ever considered the other lines of railway, or the other routes by which Walgett should be approached by rail? I have never been asked about it. 22 Oct., 1897.
365. You would not like to say whether the connection from Mudgee, for instance, would be a more direct and better route? No; I do not know the country at all.
366. *Mr. Hoskins.*] Are there any evidences of a trial survey for a railway having been made between Narrabri and Pilliga? Yes; I have seen the pegs myself as far as Wee Waa; I have met them occasionally between Narrabri and Wee Waa.
367. Do you think that the line, as pegged out by the railway surveyors, would be likely, if made, to be the least liable to be flooded? That I could not say, unless I went over the ground myself. I need not tell you it is very deceptive country; the water comes down from the south, and the further south you go the more you head the watercourses. There may be a better line, but I would not say.
368. Are there not in that part of the country blind gullies and dry gullies where for nine months in the year no water runs? Quite right.
369. And you would suggest making ample waterways at all these places by having culverts constructed? Yes.
370. So that when there was heavy rain, the water would get away, and keep the road fairly dry? So as to keep the road safe.
371. Therefore, your reference to waterways has no direct application to bridges over creeks, but to culverts? To culverts, to keep the embankments safe the whole way.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and examined:—

372. *Mr. Lee.*] Have you ever had occasion to report on this district more than once to the Commissioners? Only once. J. Harper.
373. Before opening the inquiry, could you give us this information: you made an estimate of the probable traffic to Moree before that line was sanctioned; could you tell us how your estimate of traffic compares with the actual traffic? We have not had the line in our possession during a season. It has only been in our possession about six or seven months, and we lost the greater part of the last wool season. It was in the hands of the contractor during the busiest part of the last wool season; so it is rather premature to give that information yet. 22 Oct., 1897.
374. In giving us the particulars of the traffic of this line under discussion, will you be good enough to show if you have separated the traffic from the traffic that you estimated for the Brewarrina to Byrock line? I will be able to do that.
375. I think I will now let you proceed in your own way? I will begin by reading the following report:—

PROPOSED EXTENSION OF THE RAILWAY LINE, NARRABRI TO PILLIGA.
(Distance, 56 miles; estimated cost, £128,650.)

As directed by the Commissioners, I have had searching inquiries made into the probable traffic of this proposed line. For the purpose of the estimate, a favourable year (that of 1895) has been taken, and the actual traffic carried to and from the districts which this line will serve has been taken as the basis.

Bearing in mind that a projected extension from Nevertire to Coonamble has already been dealt with by the Commissioners, all the traffic included in that estimate has been excluded from the one under notice; and as the proposed extension from Woolabra to Collarendabri is also under their consideration, traffic which might be expected to fall in to the latter line has also been excluded from the Pilliga estimate.

The season of the year 1895 has been taken as being one which was not only most favourable as far as the district was concerned, but also one in which the condition of the river to Walgett was of a most favourable character for the transport of goods to Bourke; and as a matter of fact, two-thirds of the traffic falling in at Walgett, both from north and south of the river, was river-borne. There is, of course, very little doubt that if the river did not happen, as during the present season, to be navigable, this traffic would be dealt with at Pilliga. If, however, the river should be navigable during the wool season, there is no doubt that it must always be regarded as a formidable competitor with the projected line. For the purpose of recognising these two factors—that is, a navigable and a non-navigable river—I have prepared two estimates. I may also incidentally mention that during the fourteen years between 1882 and 1896 the river was available about one-half.

The rates which have been taken are the same as those taken on a proportionate mileage basis as between Narrabri and Moree.

First Estimate.

Goods and wool traffic actually falling in at Wee Waa and Pilliga during the year 1895:—

Goods and live stock:—			
General goods, 905 tons	£505	18	9
Special classes, 655 tons	192	16	6
Wool, 2,548 tons	814	0	0
Stock, 900 trucks	323	15	0
		£1,836	10 3
Passengers:—			
800 at 2s. 6d.	£100	0	0
2,000 at 7s.	700	0	0
Parcels, &c.	100	0	0
Mails	672	0	0
		£1,572	0 0
		£3,408	10 3

Second Estimate.

As already stated, considerable traffic, amounting to 790 tons of goods and 2,055 tons of wool, was river-borne during the year in question. Assuming that the river were not navigable, and this traffic found its way to the proposed terminal point at Pilliga, the estimate would be:—

Goods and Live-stock	£3,151	15	0
Passengers, &c.	1,572	0	0
Total	£4,723	15	0

376. Narrabri to Moree is a special rate? No, it is an extension of the through rate; it is midway between that and local rates.
377. The total freightage of the district is supposed to be represented in that report? Yes, including that which was river-borne and rail-borne.

- J. Harper. 378. This shows what it actually is? Yes. It shows the capabilities of the district.
 379. This is, what the district yields? Yes, what is turned out in that year, which was the best year.
 22 Oct., 1897. 380. How do you manage to get all these tonnages and weights? By analysis of the agents' and store keepers' books. I had an officer engaged at this for nearly a month under my directions.
 381. And you had access to the carriers' books? Yes.
 382. Getting the wool clips is an easy matter? Yes; but the other has to be taken out in detail.
 Mr. Trickett.] I understood you had exempted Warren to Coonamble? Yes, I have, and also Woolabra to Collarenebri. From Coonamble I have not gone any further north than Urawilkie—that is, the north-eastern boundary of the line of traffic which I have credited to Coonamble. Even if a line were built to-morrow to Pilliga that Urawilkie traffic would not go there, it would go down to Warren, as it does now. I have a map here which partially indicates the line of traffic. The letters on it indicate the traffic credited to Coonamble. Urawilkie is the extreme north-east; that indicates a point on the line intermediate between Coonamble and Byrock. "C" indicates Coonamble itself. The boundary that has been taken for that is Toora.
 383. Mr. Lee.] It would appear from the two estimates you have given us that the second or total estimate of the whole district is the one that has been taken credit for by the Railway Commissioners as the probable traffic? Yes; in their report they refer to its including the river-borne traffic.
 384. Which, as a matter of fact, is about £1,300 more than the traffic which, you think, would go to the Pilliga railway? Decidedly, given a river.
 385. That being the difference between the first and the second estimate? Yes. I will give a list of the stations and you will get a general idea from the map of the pastoral holdings of the information you require. These are the particulars of the wool traffic which would fall in at Wee Waa, assuming that the line were built under any conditions. It would not go back to the river; it would find its way into Narrabri, even assuming there was a river.
 386. That would be within your first estimate? Yes; the stations are as follows:—

	bales	tons	cwts.		bales.	tons	cwts.
Burren	820	131	5	North Lynne, Dempsey Brothers...	131	25	0
Boolarrool	2,152	351	1	H over Namoi	150	27	10
Bullerawa	67	8	2	Merah	607	99	0
Cryon	527	92	7	Pian Creek	141	23	10
Drilool	775	128	0	Roselea	150	25	0
Gorian	1,101	192	3	Warranbri	22	38	3
Wee Waa, South	266	44	2	West Drilool	169	27	10
Nowley	382	63	6	Small clips	535	91	16

You will be able to identify nearly all those; there will be one or two homestead leases which are not shown. Then falling in at Pilliga are the following:—

	bales.	tons	cwts.		bales.	tons	cwts.
Bugilbone	1,047	167	13	Gerongera	80	13	6
Bungle Gulley	709	108	12	Kercargo	345	56	1
Buchanan, homestead lessee on				Keeleendi	954	157	2
Bungle Gulley... ..	238	39	0	Phelps	102	17	8
Come-by-chance	174	18	10	Ulumbie	34	4	5
Euray Euray	626	99	10	Yarralool	554	92	2
Euroka	886	149	3	Small clips	600	104	13
Goangra	916	152	5				

387. Mr. Humphery.] Taking the entire clip it would be about six bales to the ton? Yes. If you take it at Bourke, where wool comes long distances, it would come out at seven bales, because a large proportion of it is scoured.

388. Mr. Lee.] That includes the whole of the wool which found its way to the railway line in that year, and would find its way in any year whether there were a river or not? The greater part of it would; one or two clips might go to the river. I cannot give you the details of those other clips that went by river, but, in addition to the figures I have given, 2,055 tons went by river from Walgett. I may mention that that wool is largely represented by the wool which I read out to you the other day in connection with the Brewarrina estimate. Nearly everyone of those clips which I gave you the other day as coming from above Brewarrina are in that list. Amongst those clips which came down the river from Walgett are those which were shown in the Brewarrina estimate when we dealt with it the other day. When I was dealing with the Brewarrina estimate I gave you wool coming into Brewarrina. Now that we are dealing with the Pilliga line, that 2,000 odd tons which has been included in my second estimate, represents almost entirely the wool which has already been dealt with as coming into Brewarrina.

389. Then, if the Brewarrina line is made, and the Pilliga line is made, that river-borne estimate must be deducted from either the one or the other? Either the one or the other, or both, because that does not do away with the fact of its coming down stream to Bourke. As a matter of fact, this wool went down stream to Bourke; and, assuming that both lines were built to-morrow, there is no guarantee that it would go by either of them.

390. It might go past? It might go past both, and that is not a singular position, because we have the same thing occurring on the Murrumbidgee. Over 10,000 bales of wool used to pass Hay every year, but by extreme concessions we have been able to stop some of it. Still there is a considerable portion coming from 100 miles above Hay which goes past our railway station. There is no guarantee that the same thing would not happen here. To make this more clear, I will go through the list of some of the clips I read the other day, which I have been absolutely able to identify. As you can understand, this information being got from other sources than the railway books, cannot be got quite so well. However, these are the clips that are shown in that 2,055 tons of wool as going by river from Walgett, and credited to the Pilliga extension in the terms of the Commissioners' report, and also credited to the Brewarrina extension: Brewan, Boorooma, Mein over Narran, Dungalear, Gingie, Llanillo, Morenda, Milrea, Moorabie, Piangobla, and Ulumbie. These, probably, will not make up the totals, but they will give you a general idea.

391. Where did you pick up that trade? At Walgett.

392. Where did it touch your railway system? At Bourke.

393. All of it? Yes, all of it.

394. Might I inquire whether the Commissioners have had any control over, or allowed any rebates on the river-borne traffic? None.

395-6. Would your No. 2 estimate be worked out at the same rates as the No. 1? Yes.

397. That is, taking a proportionate rate to that which exists to-day on the Narrabri to Moree line, one is worked out in the same way as the other? Decidedly. The wool and the goods river borne have been added to the goods rail borne. J. Harper.
22 Oct., 1897.
398. Will you explain why there is such a difference in the rate between the proposed extension, Byrock to Brewarrina, and that from Narrabri to Pilliga? An arbitrary rate of 10s. a ton for the 59 miles was taken in the case of Byrock to Brewarrina.
399. And on this other line it works out at about 6s. 6d., does it not? It is split up. Wee Waa is 5s., about 19 miles; then at Pilliga the rate would be 8s. That may appear rather peculiar, in view of the arbitrary rate of 10s. between Byrock and Brewarrina. But this report was made in July of this year, and the other report was made two years ago. Since then the Railway Commissioners have reduced the rates on wool, and, practically, if you applied the rate which has been established between Narrabri and Moree to Bourke and Brewarrina, it would be about 8s. 6d.; but in any case that would not alter the facts very much.
400. There is a similar reduction in the stock rates? No; they would be about the same.
401. The stock rates are 15s. 6d. on the Brewarrina line? But there is 5s. 3d. from Wee Waa, and the bulk of the stock would be trucked at Wee Waa. There would be more stock trucked at Wee Waa than at Pilliga.
402. This works out at about 10s.? Yes, it is the difference between 16s. 4d. and 5s. 3d.; but the varying quantities do not give uniform rates.
403. As far as the figures are concerned, although you give the number of trucks, and tons of wool, and total freightage derivable from both, it is really mixed up by intermediate stations? Yes.
404. Have you any more data to put in to make your case complete at this stage? I do not think so.
405. Taking Brewarrina on the one hand, and Pilliga on the other, and bearing in mind the inquiry that you have made on the Coonamble side, you have practically dealt with the entire question of the produce of the western district, with the exception of that portion which goes to Moree? No, I have not; there are two other features; there are Coonamble and Collarendabri.
406. But you have given us Coonamble? I have told you the boundaries of Coonamble.
407. With the exception of the stuff that now goes to Moree, you have practically dealt with the whole of the traffic? Yes; there is a considerable amount of traffic in the north-west that would find its way to Collarendabri, but not to Walgett.
408. But it is still traffic in that western country which all comes on to New South Wales lines at some point? Decidedly.
409. You have practically now touched the whole question? Yes.
410. And have given this Committee an estimate, as closely as it can be obtained, of the produce of that country? Yes. I have some other information that may be of interest. An analysis of the wool coming from this particular district we are dealing with indicates that two-thirds of it finds its way to Sydney, either for sale or shipment. I mention that, so that the fact may not be lost sight of that Sydney must be looked upon as terminal point as against Newcastle.
411. But does not a large portion of the wool come to Morpeth, and thence by steamer to Sydney? But I include Morpeth in Newcastle, as Sydney is the ultimate destination. Of the Wee Waa estimate, there were 3,015 bales shipped at Newcastle, and 5,187 bales forwarded to Sydney; of the Pilliga estimate, there were 1,944 bales shipped at Newcastle and Morpeth, and 5,271 bales came to Sydney. Out of a total of 15,000 bales, 10,000 bales were dealt with in Sydney, and 5,000 bales were dealt with in Newcastle.

WEDNESDAY, 27 OCTOBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
The Hon. JAMES HOSKINS.
The Hon. CHARLES JAMES ROBERTS, C.M.G.
The Hon. WILLIAM JOSEPH TRICKETT.
The Hon. DANIEL O'CONNOR.
HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
JOHN LIONEL FEGAN, Esq.
THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.
FRANCIS AUGUSTUS WRIGHT, Esq.
FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and further examined:—

412. *Mr. Lee.*] You have some information to give us regarding the distances of various points within the area affected by the proposed railway extensions to Brewarrina and to Pilliga, and the rates that would probably be charged? Yes; I have calculated the distances from Darling Harbour, because an investigation which I made disclosed the fact that more than two-thirds of the wool coming from the Pilliga district finds its way to Sydney for sale or shipment. J. Harper.
27 Oct., 1897.
413. Some of that wool may have come to Sydney by steamer from Newcastle or Morpeth? Yes; but Sydney was its destination. The following table will give you the information you require:—

	Distance.	Rates for wool.		Rates for live stock.
		Scoured.	Greasy.	
	Miles.	per ton.	per ton.	£ s. d.
Narrabri	354	88/9	71/-	7 3 8 per truck.
Moree.....	414	100/-	80/-	8 0 11 "
Wee Waa	374	105/-	85/-	7 8 11 "
Pilliga	420	108/-	88/-	8 2 11 "
Walgett.....	469	116/-	96/-	8 13 3 "
Bourke	504	100/-	80/-	9 7 9 "
Brewarrina	516	110/-	90/-	9 9 3 "
Collarendabri	463	109/6	89/6	8 15 6 "
Coonamble, <i>via</i> Nevertire	416	100/-	80/-	8 1 9 "

These rates are based upon the proportionate charges upon the main line to Moree.

414.

J. Harper.
27 Oct., 1897.

414. You have now given us details of the actual produce of the western district from Bourke to the Queensland border, along the Queensland border to the Barwon, and down the Barwon to Brewarrina? Yes; excepting the small portion of traffic that may be expected to come to Collarenebri if a line is extended out in that direction. That traffic is not included in the Pilliga estimate. The country north of Pian Creek, on the east side of the Barwon, and south of Dunglear, on the west side of the Barwon, might be expected to go to Collarenebri, and the country south of the northern boundary of Urawilkie might be expected to go to Coonamble.

415. You have also given us the distances and probable rates to various points within the district, so that we now have before us all information in regard to the traffic to be dealt with by either or both of the proposed extensions, viz., from Byrock to Brewarrina and from Narrabri to Pilliga? Yes. Of course there are two other proposals affecting the district which have not been put before the Committee, viz., a line to Coonamble and a line to Collarenebri.

416. We have excluded those lines; they have not entered into our calculations? Neither have they entered into mine.

417. Do you know the trend of the goods traffic in the district which would be affected by the Pilliga line;—how is that country fed? Whenever there is a river the great bulk of the stores comes to Walgett by steamer. Near Pilliga they more usually get their goods by way of Narrabri. Whenever there is a good river goods are brought up by steamer to Walgett and places north-west of Walgett, and as a rule people stock up heavily then.

418. Supposing the line to Pilliga were obstructed if the wool went down the river to Bourke, would not goods come back that way? Yes, undoubtedly. That is precisely what happens now when there is a river.

419. You have told us that if the line goes to Pilliga it must be taken on to Walgett, but if there will be a loss on the Pilliga extension and the line is continued another 56 or 58 miles without any prospect of additional traffic, the loss must be doubled? That is so. The cost of working would not be increased in proportion to the extra length of the line; but the interest upon the cost of construction would.

420. But our investigations go to prove that working expenses do increase in proportion to the length of a line? Only maintenance expenses. Traffic charges in this case would not increase in proportion to the added length of the line.

421. If the loss on the line to Pilliga amounted to £4,300 a year, the loss on a line to Walgett would amount to £7,000 a year? Yes. The extension of the line on to Walgett would not bring any more traffic.

422. You have given us information as to the whole of the traffic produced in this north-western district and you say that you see no prospect of an appreciable increase? Yes.

423. Therefore, if the proposed lines would create a loss when first constructed they would continue to do so for all times? Yes, so far as I can see, I do not know what developments may take place.

424. Prior to the imposition of an export duty upon wool you got a larger quantity of wool from Queensland than you get to-day? Considerably more.

425. The export duty has been the chief cause of the falling off in the traffic from Queensland? Yes.

426. Since the imposition of the duty, has not Queensland been pushing out its railways to Cunnamulla and St. George? To Cunnamulla; but not yet to St. George.

427. What effect will the extension to Cunnamulla have? It will secure the whole of the Queensland wool.

428. Then you will never get that traffic back again even though the duty may be removed? No. Then, too, the imposition of the duty has created vested interests in favour of sending the wool to Brisbane, which, would lead it to continue to go there.

429. Therefore we must not expect to get again all the trade which we used to get from Queensland? No; I do not think we shall ever have that trade again.

430. The conditions of traffic there have absolutely changed during the last five or six years? Yes.

431. You have gone thoroughly into this question? Yes. When the Queensland railway to Cunnamulla is completed, the Queensland line will be nearer to most of the wool-producing centres out and around that district than we shall be.

432. The information you have laid before the Committee in reference to these proposed railways has been laid before the Railway Commissioners in detail? Yes.

433. Is it in consequence of that information that they have come to the conclusion that it is not desirable to extend the railway to either Brewarrina or to Pilliga? Yes. The Commissioners have also made a personal inspection of both routes.

434. Have they any alternative proposal to offer? No.

435. Are they of opinion that the existing lines must get all the produce from the district? Yes.

436. There is no immediate probability of the loss of any northern trade by gravitation to Queensland? None.

437. The produce of all this part of the country and the goods required by it are carried by the existing lines, and no extensions would secure more traffic to our railway system? That is so.

438. *Mr. Clarke.*] The Commissioners say in their report that the river has been open seven times in fourteen years? That means that it has been open during the wool season for seven years out of fourteen; but it has also been open at other times of the year, when advantage had been taken to rush forward heavy shipments of goods. The following table shows the number of days during which the river was navigable to Walgett, from 1882 to 1895:—

1882...	...	...	...	84 days.	1889...	...	...	...	190 days.
1883...	...	...	...	44 "	1890...	...	...	...	354 "
1884...	...	...	...	21 "	1891...	...	...	...	282 "
1885...	...	...	...	31 "	1892...	...	...	...	247 "
1886...	...	...	...	222 "	1893...	...	...	...	337 "
1887...	...	...	...	269 "	1894...	...	...	...	282 "
1888...	...	...	...	82 "	1895...	...	...	...	54 "

During the year 1894-95, from June to June, two-thirds of the wool and goods traffic were carried from and to Walgett by river. That indicates that the river was available during the whole of that wool season.

439. *Chairman.*] A railway competing with it during that year would not have taken the traffic? No. We should be in the position there that we are in at Bourke. I had a wire to day to say that three steamers have arrived in Bourke from South Australia, with an average general cargo of 90 tons each. If that is happening at Bourke what would prevent it from happening at Walgett.

THURSDAY,

THURSDAY, 28 OCTOBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

Neville David Cohen (David Cohen & Co.) sworn, and examined:—

440. *Mr. Wright.*] What is your usual place of residence? I am living in Sydney now; but up to the N. D. Cohen.
last eighteen months I have been living in West Maitland.

441. Do you know the country which the proposed line would serve? No.

28 Oct., 1897.

442. Have you any statement to make to the Committee? I should like to say that for a great number of years past I have taken considerable interest in the question of an extension to Walgett. My firm, and several other firms in the Newcastle, West Maitland, and Singleton districts, are a good deal interested in this extension, because the trade from the district which would be affected by it has hitherto always come to Newcastle, and we think that if it were diverted to some other place, it would do a great injury to the large towns in the northern district. Irrespective of any personal interest which I may have, I consider that any railway to Walgett should be taken from Narrabri, so that the trade would not be diverted from Newcastle. The trade of Newcastle is at present very large, and it is a growing trade; but if an extension were made to Walgett from Mudgee a good deal of this trade would be taken from Newcastle and brought to Sydney. I do not come here because of my own personal interests, for I do not think it would do me much harm if the trade were brought to Sydney. I come here to advocate the special claims for consideration which are possessed by Newcastle, and to ask that the trade that now goes there shall not be diverted. Ever since I have been in the colony I have advocated that Newcastle should be looked upon as likely to be a very large port; but if you take away this trade from Newcastle you do a serious injury to the port and to those who have been connected with it for a great number of years. For sixty years past my firm has been doing a very large business in the northern and north-western districts. We have been settled in West Maitland for nearly sixty years, and there is not the slightest doubt that if the traffic from the Walgett district is diverted from Newcastle it will do harm to Newcastle and to all the firms interested in it. At a public meeting held in West Maitland eighteen months or two years ago, I mentioned that the future developments of the colony should be taken into consideration by those whose province it is to determine these questions. The colonies are likely to develop to a very large extent within fifty or 100 years, and if the whole of the trade is centralised in one place it will create congestion and do a serious amount of harm. If the line to Walgett is taken *via* Mudgee, the traffic from the Walgett district will all come to Sydney, whereas if the line is taken from Narrabri the traffic will come to Newcastle. This will relieve Sydney, and will help to develop one of the principal ports of the colony. The Members of the Committee must all be aware of the great facilities for shipping which are offered by the port of Newcastle. I have travelled a great deal in my time, and I have seen most of the ports of the world, and, in my opinion, Sydney and Newcastle are the most effective ports for loading and discharging which I have visited. At Newcastle, deep-sea ships coming from any part of the world are within the harbour and alongside the wharf—in the very centre of the city—within a few minutes, and the same thing occurs at Sydney. At London, however, it takes a very long time and considerable expense to go to the docks, say, at Tilbury. These two ports are so important that they are likely to become in time the central ports of Australia, especially if we have federation.

443. But the proposed extension will not have the effect of diverting traffic from Newcastle? No; and I am advocating the construction of a line to Walgett from Narrabri instead of from Mudgee. A deputation waited upon the Secretary for Public Works some time ago in reference to this subject, and amongst those who attended was the President of the Newcastle Chamber of Commerce. That gentleman, in his address at the annual meeting of the Chamber of Commerce, referring to the necessity to see that no injustice was done to Newcastle and the towns along the Great Northern line by the tendency to construct railways to carry the products of the Colony past the natural and nearest port, said—

An example of this is apparent in the efforts that are now being made to have the town of Walgett connected with the Sydney-Mudgee or the Sydney-Dubbo line, instead of connecting with a point on the Great Northern railway—say Narrabri. This would be the shortest and least expensive line to construct, and it would also be the least costly to work, besides giving the people in the country the option of shipping and landing their goods, merchandise, etc., at either of two ports, instead of limiting them to one only. . . . The general physical features of the Narrabri-Walgett country are immensely superior for railway construction to those of the other suggested routes, plains of fine black soil predominating, and rivers are few, so that no great number of bridges would be needed. No less an authority than Mr. Bruncker stated that the cost of this extension would not exceed £2,000 per mile; and the line, if constructed upon such a rate, would yield a very large income.

444. You do not swear to the correctness of that report? No.

445. Were you present at the meeting? Yes; and so far as I know, that is exactly what was said. I may state that West Maitland has initiated this movement, because for a great number of years it was one of the most important towns in the north.

446. It was the depôt for all that part of the Colony? Yes. Unfortunately at the present time its glory has somewhat departed, and I do not suppose it will get it back again. Fifteen years ago West Maitland took the initiative in this movement, because most of the trade from the district round Narrabri, Walgett, Pilliga, Wee Waa, and those places came to it. They formed a league called the Narrabri-Walgett Railway League. We have had a great number of meetings since then, and three or four deputations have waited upon various Ministers for Works; but up to the present nothing has been done. Now, in the opinion of myself and of other members of the league, a climax is likely to be arrived at, and they have asked me to point out the position to you, and to urge that the claims

N. D. Cohen. of the northern district should be studied and that trade should not be taken away from that district, as it will be taken away if the line is taken *via* Mudgee to Walgett. If that line is made, all the wool and the live-stock will come to Sydney, and the traffic of the district will be diverted from what has been its natural destination ever since there has been any. Although my firm have been settled in West Maitland for over fifty years, West Maitland is not now the place it was when I first came to the Colony; and if the north is to keep its position, the traffic from the district I am speaking of must come to Newcastle. My firm have spent large sums of money in putting up buildings at Newcastle. We put up a large building there six or seven years ago, and we are now putting up another very large building, while many others have spent large sums of money in settling down at Newcastle. If, then, trade is diverted from Newcastle and brought to Sydney it will do a great deal of harm to Newcastle and to a large number of firms, who, like ourselves, have interests there. At present the north-western district is not nearly so much developed as it is likely to be in years to come. About two years ago a large deputation from the north waited upon the Chief Secretary. Among those who formed the deputation there were present: from West Maitland, Mr. J. Gillies, M.P., the mayor, Mr. H. Crothers, Aldermen Cobb, Taylor, Leopold, Ross, Quinton, Young, Ribee, and Clark, Messrs. N. D. Cohen, (David Cohen and Co.), J. D. Prentice (Wolfe, Prentice, and Co.), H. H. Capper, (E. P. Capper and Sons); and many others, including representatives of Murrurundi, of Newcastle, of East Maitland, of Morpeth, of Wickham, of Hamilton, of Stockton, of Greta, of Carrington, and of Wallsend. Letters of sympathy were sent from the Hon. A. J. Gould, Minister of Justice, Messrs. W. H. B. Piddington, T. H. Goodwin, W. T. Dick, J. L. Fegan (Members of Parliament), and others. This was one of the largest deputations that ever took an interest in the matter. In replying to the deputation, Mr. Bruncker, who is one of the strongest advocates of the line, is reported to have said:—

In the report he had there from Mr. Jones, it was said this country would not give the same proportion of produce as that from Mudgee *via* Coonamble to Walgett; but he found that this gentleman, whoever he was, had credited the former line with produce from a large tract of country which would come by the Narrabri route. This was most unfair. If submitted to a Government who knew nothing about the country the Government would be likely to decide on it. Any man who knew from experience the capabilities of the country would give no credit to such a report placed before him. The gentleman who made such a report was deserving of something more than ordinary condemnation. . . . He had explained that his colleagues would take the course that was in the best interests of the country. . . . This line must be constructed if justice was to be done to those settled on the land. Something had been said about Newcastle and its being the natural port for the north and north-west—that Nature had so designed it. He was proud to say that, in proportion to the amount expended, it gave the best return of any seaport in New South Wales.

447. That is substantially your case? Yes.

448. In the construction of a railway, what do you consider the primary object to be served? The interests of the district.

449. A weak point in your statement is, that you made no mention of anybody identified with the Walgett district as having been connected with this movement? I forgot to mention that I am here to-day specially to represent Walgett. I had no idea of attending until I received a letter from the honorary secretary to the Railway League at Walgett, who asked me to attend. The people of Walgett have been in favour of the construction of this line. The people of Narrabri have never taken so much interest in this matter, because they consider that it would be better for them to have the terminus at Narrabri. Only to-day I received the following telegram from Walgett:—

Harper states to Committee, Woolabra-Collarendabri-Warren-Coonamble railways will take traffic from Narrabri-Pilliga. Contradict this. These lines not yet contemplated by Government. Young opposes first-named.—T. CLARKE, Hon. Secretary, Railway League.

The Walgett people have been kept so long in suspense that they do not care now where the line comes from so long as they get a railway.

450. Your main contention is, that the trade from the north-western district has for many years come to Newcastle and the towns on the northern line, and that any attempt to interfere with that traffic would seriously prejudice those towns, while the district would not be better served by an alternative route? Exactly.

451. You contend that, in considering a matter of this kind, the Government should, as far as possible, conserve existing interests? Yes.

452. They should not interfere with existing trade relations, unless for very good reasons? Yes; I contend that the port of Newcastle has special claims for consideration.

453. If Walgett and its neighbourhood could be more cheaply and efficiently served by a connection with the Western instead of with the North-western line, what would be the duty of the Government? I think that in any case the Government ought to take into consideration the future development of those parts of the Colony. It might at the present time be cheaper to take the traffic that way, and you might save a large amount in the construction of the line; but that country is likely to be a very important district in years to come, and you will do a great injury to the important port of Newcastle if you take from it its natural trade. It is not as if there were a bar at Newcastle, or the port were unsuited for the trade. It is in every way suited for it. There is every facility for doing a large trade there, and why should not the traffic which has gone there for a number of years continue to go there, instead of to Sydney.

454. But if it is conclusively proved that the country around Walgett can be better and more cheaply served by a connection with the Western line, do you not think it is the duty of the Government to make that connection? I do not think so. I do not think that the question of cheapness should be so much considered as the possible future development of this country.

455. I am not speaking only of cheapness, I am speaking also of effectiveness? Well, it is open to question whether such a connection would suit that country.

456. Are you prepared to say that you believe that Walgett would be as well, if not better, served by a connection with the North-western line? I am.

457. Mr. Hassall.] Do you think it would be of any use to take the line from Narrabri to Pilliga and to leave it there? No.

458. The objective point must be Walgett? Yes.

459. Are you aware that the country on the southern side of the Namoi is rather poor country? I have heard so; but Mr. Bruncker, in the speech which he made to the deputation to which I have referred, is reported to have said:—

It was all very well to say it would go through a sandy desert. He knew there was a belt of sand that they could take it along if it was desirable to construct it along that; but, he said, "Look at the surroundings." If they did that they would find it would be the most settled in New South Wales.

460. I presume that the extension of a railway to Walgett from Narrabri, or any other point on the railway system, would not sever your business connections with the district? I do not think it would. N. D. Cohen.
451. It would not prejudice your business interests if the connection were made from some point other than Narrabri? It would to some extent; but I should like it to be understood that I am not here to defend my personal interests. I am not speaking for David Cohen & Co.; I am speaking for the whole district. 28 Oct., 1897.
462. You are here, not only to defend your own business relations, but those of a number of towns between Newcastle and Narrabri? Yes.
463. It is well known that practically the whole of the business of the Walgett district with the sea coast has been carried on through Narrabri? Yes.
464. When the terminus of the railway was at Murrurundi the business went through that town, as it did before through Muswellbrook, and before that again through Singleton? Yes.
465. Do you not think that, instead of taking the line on the south side of the river, it would be better to cross the river at Narrabri and go through the better country on the northern side? I think so.
466. Do you know from your business dealing whether any great settlement has taken place on the north side of the Namoi? So far as I know, trade up there is increasing, because the amount of business which we do with the storekeepers up there is increasing.
467. Then the natural inference is that settlement is also increasing? It must be.
468. I suppose you still deal in wool? Yes.
469. A good many clips come through your hands, either directly or indirectly? Yes.
470. And stations get their supplies and stores back from you, if not directly, indirectly through the distributing houses in the district? Yes.
471. The trend of traffic in that district has for many years been in the direction of Newcastle by way of the North-western and Northern line, and you think that the traffic should be allowed to continue in that direction? Yes. In time of drought, that district draws very largely upon the Hunter River district for its supplies. Around Maitland there is a very rich agricultural district, and the demand for chaff and other produce is very great. If the district should be connected with Sydney instead of with Newcastle this trade would cease.
472. The district might then get its supplies from Orange or Dubbo? Yes; but that would mean great loss to the people who now have the trade.
473. But you must show some consideration to the people whom the extension of the line is intended to benefit? I am not sure that the agricultural districts you mentioned are as near to the district as is the Hunter valley agricultural district. Then, too, the land in the Hunter River valley is more to be depended upon in times of drought than that in any other part of the Colony. At the present time the land around West Maitland is more valuable for agricultural purposes than land in any other part of the world—at least, so I have been told. There is no land in any other part of the world which will fetch £100 an acre purely for agricultural purposes. I have property in the district which cost me £85 an acre. Since I have had it, there have been several very heavy floods, which have done it an immense amount of damage, and I have not got so much out of it as I would otherwise have got; but if the floods had not been so frequent it would have paid me from 10 to 12½ per cent. Last year, when there was a very heavy drought up north, they got better lucerne in Maitland than anywhere else, and land pays a better return in Maitland than in any other part of the Colony. Consequently, the district can produce large quantities of hay and other produce more cheaply than any other parts of the Colony.
474. The great market for the Hunter River lucerne is Sydney? Yes; because of the great demand here.
475. By constructing a line from Mudgee to Walgett you would bring Walgett nearer to Sydney than if you constructed a line from Narrabri to Walgett? That may be so, but it must be borne in mind that there is only one branch from the Northern line, whereas on the Southern and Western lines you have several branches; and, in deciding in regard to this matter, you must take into consideration not only present requirements but future requirements. Why should Newcastle be deprived of a large amount of trade. It is to the interests of merchants and shippers there that the trade should be fostered. The quantity of wool that is now taken to Newcastle is hardly sufficient to keep the steamers going, and if you divert a great deal of the traffic things will be still worse. What is the use of spending immense sums of money upon Newcastle if you are going to take the trade away from the port.
476. You think that no benefit could be derived from an extension of the line to Pilliga? It would be a great advantage to Pilliga and the surrounding districts.
477. We have it in evidence that the annual cost of the proposed line, including interest upon capital and cost of maintenance and working, would be £9,086, and the revenue £4,720, leaving an annual loss of about £4,300; that being so, do you think the Government would be justified in constructing the line? I think so, considering the future before the district. I am of opinion that once a railway is made from Mudgee to Walgett the trade will never come back to Newcastle again, because then it will never answer to make a line from Walgett to Narrabri.
478. If it could be shown that a line from Mudgee to Walgett would pay, while there would be a loss of £4,300 on a line from Narrabri to Walgett, do you think the Government would be justified in constructing a line from Mudgee to Walgett? I think that the Government should look to the future development of the Colony, and take steps to bring the trade to Newcastle.
479. Would you make one of a syndicate to construct a line upon which there would be an annual loss of £4,300? I do not know that I would; but this line would belong to the Government, and would be constructed for the future as well as for the present. You will find that some of the railways in England do not pay at first, but when coal is in demand they pay handsomely. Although it may be shown upon paper that there would be an annual loss of £4,300, it must be borne in mind that there would be a considerable loss to the Newcastle district—a loss which is not stated—if the trade were diverted from Newcastle.
480. *Mr. Roberts.*] On what grounds do you recommend an extension from Narrabri to Walgett in preference to other routes? Ever since the district was known, it has always traded with Newcastle, and it does so at the present time. If the traffic were diverted, people who have vested interests all the way up the Northern line from Newcastle would be deprived of a large amount of their natural trade. Once you tapped the Walgett district by another line, the whole of the traffic would come to Sydney, to the detriment of the northern district, and that would do serious harm to all who had business relations with the district.

- N. D. Cohen. 481. Newcastle has been the recognised port for that district for many years past? Always.
482. Does a very large quantity of wool come from Walgett to Newcastle? Yes.
- 28 Oct., 1897. 483. Is it shipped at Newcastle? Yes.
484. Are you aware that the distance from Sydney to Walgett, by way of Nevertire, is 478 miles? No.
485. The distance from Sydney to Walgett *via* Conamble is 468 miles, *via* Dubbo 436 miles, and *via* Mudgee 400 miles; whereas the distance *via* Newcastle and the North-western line is 468 miles? You cannot compare the distances from Walgett to Sydney by these various routes, because Newcastle is at the present time the terminus for the traffic from the district. That traffic does not come on to Sydney.
486. Is the whole of the wool from that district shipped at Newcastle? Yes; but the competition amongst shipping companies is so great that they are prepared to bring it from Newcastle by the Hunter River Company's steamers, and ship it from Sydney, for the same cost as they would ship it from Newcastle. Of course, if people like to do that, you cannot consider that the wool comes naturally to Sydney, because its natural terminus is Newcastle. We ship all our wool to London from Newcastle, though unfortunately there is not sufficient at the present time to entirely load up the ships. We ship the wool from Walgett, Moree, and all that district direct to London, and we send goods there which are imported direct from England and other parts of the world to Newcastle.
487. Does your firm import all the merchandise required for the northern district at Newcastle? Most of it.
488. That merchandise is then sent away by train? Yes.
489. If the river were up, would it not be more advantageous to send produce away by steamer than to send it away by train? I do not think so. Of course, this line would serve the whole district. The Narrabri people are not taking any great interest in the matter, because they have an idea that if the line is extended past Narrabri it will take trade from that town. The Walgett people, too, have been so disappointed during the last eighteen years, that they do not care where the line comes from, so long as they get a line.
490. Would the greater quantity of traffic come from the district north of Walgett? Yes. A large amount of traffic would also come to the line from the Queensland border. There is not the slightest doubt that Walgett should be connected with our railway system. An immense district would be developed by such a connection.
491. Do you think that the line would attract trade from Queensland? From the border of Queensland. I am supplying a great number of stations on the Queensland side of the border. Of course we have to pay the duty.
492. Where are the branches of your firm established? We have branches at Sydney, Maitland, and Newcastle.
493. *Mr. Black.*] Did I understand you to say that you would close your Maitland store if the railway were extended to Walgett from Mudgee? No; I did not say that. I said that Maitland is not so important now as it was twenty years ago, and that on account of the traffic going to Newcastle we might one day have to close our business-place there; but that has nothing to do with this railway proposal. We are putting up a very large building at Newcastle because we consider it the natural centre of the trade.
494. You are merely transferring your headquarters to Newcastle? Yes. If the Walgett traffic were brought direct to Sydney it would do us an immense amount of harm, because a great deal of the wool that now comes to us at Newcastle would be consigned to other agents at Sydney.
495. *Mr. Hoskins.*] Are you aware that a great deal of the trade to and from Walgett is done by the river steamers? Yes.
496. Do you know that the trade is increasing, while the trade with the Hunter River valley is decreasing? Yes. I think that is because the railway has not been made to Walgett.
497. If we have been told by the Chief Traffic Manager that he believes that loading could be taken by the steamer from Walgett to Bourke for a sum of 12s. 6d. a ton, especially if the river were locked, do you think that the railway could compete? I do not think so. A great deal of that trade leaves the Colony altogether.
498. We have it in evidence that all the traffic brought to Bourke from the Upper Darling comes to Sydney by rail? Yes; but you should bear in mind that, in constructing the proposed line you are not only serving Walgett; you are also serving an immense district between Walgett and Narrabri.
498. We have it in evidence that that district is very sparsely populated; that settlement is not increasing there; and that it is devoted entirely to pastoral enterprise; while the construction of a railway would entail an annual loss of £4,300? I have heard it stated that a railway could be constructed there for £2,000 a mile.
500. If a line were constructed for £2,300 a mile, there would be an annual loss of £4,300 a year upon it. The Chief Traffic Manager, who has been over the district many times, says that he sees no probability of the traffic increasing, and that if the Darling is improved, the trade will go down the river? In England the canals which have been in existence for 100 or 200 years have had to knuckle under to the railways. Even in Staffordshire and that part of the country, everything is taken by train.
501. Would you be surprised to hear that the Chief Traffic Manager stated that, because of the extension of the Queensland railway to Cunnamulla, the quantity of traffic we get from Queensland is decreasing? No.
502. You do not consider that the Walgett district will be anything but a pastoral district for many years to come? Not unless a large population settles there. From what I hear, the country between Narrabri and Walgett is all black soil, and it is very difficult to travel over except in fine weather. Traffic, therefore, naturally goes to the river, the steamers providing a quicker and cheaper means of conveyance than the drays. If the railway were made that would not be so.
503. But it has been stated that wherever a railway comes into competition with water carriage, water carriage wins the day? Yes.
504. Therefore, do you think this line ought to be made—do you think the Government ought to disregard financial considerations? No.
505. *Mr. Lee.*] The main point you wish to establish is, that nothing should be done which will divert the traffic of this district from the port of Newcastle? That is exactly what I came here to say.
506. If no railway is made at all, Newcastle will be no worse off than it is now? No.

507. The question is, whether it would pay to extend the railway from Narrabri to Pilliga? I think it would. N. D. Cohen.
508. We have had evidence before us as to the exact amount of produce obtained from that district, and the quantity of goods sent into it; and it has been shown that there would be a large loss upon any railway that was made;—you have not shown that a railway would bring any additional traffic to Sydney or to Newcastle? I am not prepared to show that. There may be a little extra traffic from the Queensland border, but how much I do not know. 28 Oct., 1897.
509. I think you somewhat over-estimate the importance of the Queensland traffic. We have it in evidence that about two-thirds of the produce of this district finds its way to Sydney, either by rail direct or by steamer from Newcastle or Morpeth? No doubt a large part of the produce of the district is sold in Sydney. It may be that Sydney will become the entrepôt of all the produce of the Colony. At the present time, however, very large quantities of frozen meat and other produce are shipped directly from Newcastle to other parts of the world.
510. The proposed extension would not affect the frozen meat trade? If a line were taken to Mudgee it would take a good deal of the trade in a different direction.
511. But I am speaking of the line under consideration? I do not think it would have very much effect if it were only taken to Pilliga. A railway there would develop the country.
512. It would secure the traffic of that part of the country? Yes.
513. Newcastle is the distributing centre for the northern and north-western districts? Yes.
514. It is of more importance to the people of Newcastle that the North-western railway should be extended to Walgett, than it is to the people of the north-western district that they should get their produce to the sea-board? I do not think so. The producers would benefit as much by a connection with Newcastle as by a connection with Sydney.
515. Would it suit the people of Newcastle and the Hunter district to let things remain as they are? So far as Maitland and Newcastle are concerned, it would not make any difference. It would leave them *in statu quo*.
516. *Chairman.*] Do you know what proportion of the produce which comes from the Walgett district to Newcastle is shipped from Newcastle, and what proportion comes on to Sydney? No. Sydney is becoming of great importance, so far as the wool sales are concerned. Do what you may, you cannot prevent the wool from coming here; but it would come as cheaply by the North-western and Northern line and the Hunter River Company's boats as through Mudgee. No doubt in years to come nearly all the wool will be sold in Sydney. If, however, Newcastle developed to a large extent, wool sales would take place there. At present the quantity of wool sent to Newcastle is not sufficient to justify foreign buyers in going there. Dalgety & Co. tried to have the wool sold at Newcastle, but the supply was found to be too small. If a line were taken from Mudgee to Walgett this would still more diminish the quantity of wool coming to Newcastle. I should also like to point out that in Great Britain all the trade is not centralised in one port. London is a great port; but if you want to buy cotton seed, palm oil, and other African produce, or American goods, you go to Liverpool. For other things you go to Hull, and for other things you go to Cardiff. Why should not the ports of this Colony be developed in the same way.
517. People must go to Newcastle for coal? Yes; and I would like them to come to Newcastle for other things as well. Every ton of wool which you take from Newcastle and send to Sydney keeps back the development of Newcastle.
518. Do you know what proportion of the goods that are sent into the Walgett district is landed at Sydney, and what proportion is landed at Newcastle? I think nearly the whole of the merchandise sent into that district is landed at Newcastle. The amount of the freight from Sydney to Newcastle is the profit that the merchants make. Of course articles of local manufacture, such as corn-flour and sugar, are sent from Sydney, but goods from other parts of the world are imported direct to Newcastle.

FRIDAY, 29 OCTOBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FABNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

Robert Edward Jones, M. Inst. C.E., District Engineer, Roads Branch, Department of Public Works, sworn, and examined:—

519. *Chairman.*] For the purpose of this inquiry we will consider Walgett an objective point, and any of the railways of the Colony as furnishing opportunities for joining that point with the railway system. That was broadly how you looked at the case before? Yes. R. E. Jones,
M.I.C.E.
520. Therefore the country under consideration, generally speaking, is that bounded by the North-Western line, by the main Western line, and by the river Darling? Yes. 29 Oct., 1897.
521. *Mr. Roberts.*] You know the line under the consideration of the Committee, from Narrabri to Pilliga? Yes.
- 522-3. Have you been over that country? Several times.
524. Have you been from Pilliga to Walgett? Yes.
525. Have you been over the country from Warren to Coonamble and thence on to Walgett? Yes.
526. And from Dubbo to Walgett *via* Coonamble? Yes.
527. Have you been over the country from Mudgee to Walgett *via* Gulgong and Coonamble? Yes.

- R. E. Jones,
M.I.C.E.
29 Oct., 1897.
528. Were you commissioned by the Minister for Public Works to make a survey of these routes? Not a survey, but I was instructed to make inquiries.
529. What position do you hold in the Department of Public Works? District Engineer.
530. How did you come to make the report? Instructions were given me by the Under-Secretary for Public Works to make these inquiries.
531. How long ago was that? My instructions were delivered in 1890, and I finished my report in 1891. I have been in charge of the northern division as regards roads, comprising all these districts, since then, and I was at Walgett as late as last April.
532. Have you been over the line from Narrabri to Pilliga recently? Yes; in April I went from Walgett to Narrabri.
533. And as to the other routes I have just mentioned? I suppose it is two years since I was in Coonamble.
534. Were you called upon to make any recommendation as to railway construction? Yes.
535. Perhaps you will briefly state what you were commissioned to report upon? My instructions, as set forth in the first page of my report, embraced the following:—
- “1. The proposal to join Werris Creek with the western line, either at Dubbo or Wellington.
2. The junction of the western line from either Dubbo or Wellington, according to which place it is decided the Werris Creek extension should join through Forbes, to connect with the Blayney-Murrumburrah line, with Young, Cowra, or at some other point which the inquiry will show to be best.
3. The question of extending the Mudgee line, *via* Gulgong, to a point on the proposed cross line between Dubbo and Werris Creek, as the inquiry will show to be most desirable.
4. The connection of Walgett with the existing system, either from Narrabri or some point on the suggested Dubbo-Werris Creek line, *via* Coonamble, or from the northern line at Singleton, Muswellbrook, or at some other point *via* Cassilis and Coonabarabran.”
536. The object was to tap the Barwon River, was it not? Yes; to give access to the districts of Coonamble and Walgett.
537. After traversing the different routes, what conclusion did you arrive at? That a line best serving the country would be one from Mudgee through Gulgong, Mendooran, Coonamble, and on to Walgett.
538. Did you prefer that route on account of the distance from Sydney being shorter than by any other route? It is a shorter distance from Sydney for the places mentioned than any other route.
539. What about the engineering difficulties? It is an expensive line, no doubt, particularly between Mudgee and Mendooran.
540. What would be the cost per mile between Mudgee and Mendooran? According to the present estimate of the Engineer-in-Chief, the cost from Mudgee to Coonamble would be about £3,260 per mile for 147 miles.
541. Where does the expensive portion of the route cease;—does it cease when you get west of Mendooran? It ceases within about 40 miles of Coonamble. That would be 117 miles out of the 147.
542. Is the expensive part of the route north or south of the intersecting line from Dubbo to Werris Creek? Chiefly on the Mudgee side—the southern side; for a distance of about 40 miles on the northern side it is better country.
543. And the last 40 miles to Coonamble? That is good.
544. Undulating country and fairly level? Fairly level.
545. And thence on to Walgett, what is the country like? That is all level.
546. Have you the figures showing the cost per mile from Coonamble to Walgett? Yes; I have the figures of Mr. Deane, which show a cost per mile of £2,750.
547. And can you give the Committee the cost per mile from Mudgee to Walgett right through? Virtually £3,100.
548. And you recommend the line from Walgett to Mudgee in preference to any other? I did so at the time I made my report.
549. Are you still of the same opinion? Since then the line from Nevertire to Warren has been authorised, and that somewhat alters the position of matters.
550. Would that go through a country more favourable to railway construction? Yes; it is the cheapest line of all.
551. What would be the cost per mile from Warren to Walgett *via* Coonamble? £2,550.
552. What is the distance from Warren to Walgett by way of Coonamble? One hundred and thirty-two miles.
553. And from Mudgee to Walgett? Two hundred and fifteen miles.
554. With those figures before you, which line do you think, in the interests of the country, it would be desirable to construct, if any? If I had to do with the railways of the country I should say certainly make the one from Warren to Coonamble, as being the means of obtaining the greatest results at the least cost; but in regard to opening up the country it would be a different matter, and the line from Mudgee would do that better.
555. Would it serve a larger number of people? It would serve a larger scope of country and a larger number of people, but at a far greater cost. The Warren route would burden the people of Coonamble and anywhere north with the additional mileage of about 78 miles, by making the circuit to Nevertire as against going straight to Mudgee.
556. Which line would be best suited for settling an agricultural population? The line from Mudgee to Coonamble.
557. Is it all good agricultural land? Very much of it.
558. I understood you to say it is rather rough after leaving Mudgee? About the Warrambungles, which is a hilly district, there is some splendid agricultural land.
559. Is it quite equal to the country between Warren and Coonamble, and thence to Walgett? Not for pastoral purposes, but it is better for agricultural purposes.
560. In the districts to which we have been referring, where, in your opinion, is the best country for wheat-growing? In the valley of the Talbragar, and from there about half-way to Coonamble, and of course around Coonabarabran.
561. Is it good agricultural country between Warren and Coonamble? No.
562. Is it all pastoral country? Yes, nearly all pastoral country. It is all flat, and there is practically no agriculture there.

B. E. Jones,
M.I.C.E.
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563. It is all sheep country from Warren to Walgett? Magnificent sheep country.
564. How would you describe the country between Mudgee and Coonamble, as at present occupied;—is that all sheep country? No. At Gulgong there is mining. If there were access to a market a good deal of the country would be put to agriculture up to within 40 miles of Coonamble, and then the country is pastoral right up to Walgett, and from there to the Queensland border.
565. From your knowledge of the country, do you think if a line were constructed to Walgett any agricultural settlement would take place? I do not think so, unless on the river by means of irrigation.
566. You think that pastoral pursuits would still engage the attention of the people living there? Yes.
567. Approaching Walgett, is the country what one might term flooded country? Yes.
568. Is that so on both sides of the Namoi river? Yes; anywhere within a certain radius of Walgett it is all flooded country.
569. Looking at the route from Pilliga to Walgett, as shown on the plan, would that escape the flooded country? No.
570. Would that all go through flooded country? Yes. The flooded country extends within 16 miles from Walgett towards Pilliga, and follows up the Barwon at distances varying with the branches of the river, and it extends from Collarendabri about 16 miles eastward.
571. Is Wee Waa an important place;—do you regard it as necessary to tap that place? I do not think it is an important place.
572. According to your report in 1891, there were about 300 people there;—do you know if it has progressed since? I do not think it has gone back. The last time I was there, in April, it seemed, if anything, to have progressed since I made my report.
573. And Pilliga, is that as large a place as Wee Waa? No.
574. What would be the population of Pilliga at the present time? I cannot say what is its present population. In 1891, I think it had a population of 920 people within a radius of 30 miles. Pilliga itself is a very small place.
575. Is there any cultivation around Pilliga? There is a little on the Baradine and Dubbo Creeks.
576. What do they grow there? Chiefly wheat. There is also a little cultivation on the north side of the Namoi, between Narrabri and Wee Waa.
577. How many sheep do they run to the acre, speaking generally—a sheep to the acre? No. If you took a line to Pilliga, you would include the great scrub, which is a large unoccupied country.
578. Take the country between Warren and Walgett? For the country west of Narrabri, on the south side of the Namoi, to Walgett, I give in my report virtually 3,000,000 sheep on an area of 8,000,000 acres, which is about equal to one sheep to 2½ acres. That would include the unoccupied country.
579. And in reference to the country from Nevertire to Walgett *via* Coonamble? I say in my report that the trafficable sphere includes 8,500,000 acres, but I do not give the quantity of stock. From Dubbo to Walgett the area is 10,500,000 acres, on which there are 3,750,000 sheep. That is about the same average as in the other case—one sheep to 3 acres.
580. That would pretty well apply to all that country? Yes. I daresay it would be one sheep to 2 acres on the Warren route, because it is better country.
581. In your report you give an estimate of the wool tonnage that would produce revenue on the line, and you estimate 950 tons as coming from Queensland. Was that before the export duty on wool? Yes, I think it was. There is a duty now of £2 10s. per ton.
582. Would any wool come over from Queensland now, notwithstanding the export duty? Yes.
583. In reviewing that estimate of 950 tons from Queensland, having in view the export duty on wool crossing the Queensland border, what quantity of wool do you think would come from Queensland to Walgett at the present time? I do not think the export duty would influence the quantity very much. I think we should still pretty well get that quantity, because there is no railway anywhere near on the Queensland side of Goodooga and Angledool.
584. In your report, you made some reference to the enhanced value of the Crown lands around Walgett? It is not so much around Walgett as generally.
585. You say “the enhanced value of the Crown lands would be felt chiefly in the Walgett locality”? Since my report was made, the Crown leases have fallen in and the conditions are somewhat different. There is far more alienated land under the new land bill.
586. If Coonamble were connected with the railway system of the Colony, do you think that would lead to any marked agricultural settlement round there? It will all depend upon which route you adopted. If you took the Mudgee route, it would lead to an increase of agriculture in the neighbourhood of Warrambungles, and other parts, including the Talbragar. But if you made a line to Warren, I do not think it would, to any extent, lead to agricultural settlement.
587. Is the country not so well adapted for the growth of cereals? No, not from Warren to Coonamble.
588. Where is the indifferent country? It is not indifferent; it is splendid pastoral country.
589. Have any attempts been made to grow cereals between Warren and Coonamble, or around Coonamble? No; the agriculture is very insignificant—just on the river, consisting of Chinamen’s gardens and so forth. It is very little—you may call it nothing.
590. Are you aware that they are producing wheat between Byrock and Brewarrina? It may be so. I know they are up to Nyngan. There was not a bit of wheat at Naromine when I made my report; but since then there are thousands of acres under crop. That is very suitable country for wheat.
591. Do you know the country between Byrock and Brewarrina? I have only been over it once.
592. How does it compare with the country between Warren and Coonamble? I cannot say. I have been over it once, and that was partly in the night; it was in the flood of 1891.
593. Do you know the rainfall of Coonamble? The average for a period of ten years was 21.72.
594. And at Walgett? 19.28.
595. Can you tell the Committee which seems to be the route most favoured by the people around Walgett? Until the time of my visit, I think the favoured route was the one always put before them—that from Narrabri.
596. They have a preference for reaching Newcastle instead of Sydney? I think so; their trade interests are with Newcastle undoubtedly.
597. At present they do all their business with Newcastle? Yes. Of course like most places their anxiety is to get a railway.

- R. E. Jones, 598. And they do not care very much where it comes from? No.
M.I.C.E. 599. When you were at Walgett was the river navigable? It has been on occasions when I have been
there. I have seen a steamer right up at Walgett.
29 Oct., 1897. 600. Do you not think it probable that whenever the river was navigable the railway would not be used by
people around Walgett? There is a probability of that, especially if two or three obstructions in the
river are removed.
601. Have you any record as to the number of months in the year when the river is navigable from
Walgett down to Bourke? I find in my notes that in 1890-91 the wool from Euroka, Boorooma, Milrea,
Gingie, Ulumbie, and Llanillo, went to Brewarrina, and on to Bourke, by water. Of these places, Euroka
is virtually on the river, Boorooma is right on the river, and Milrea and Gingie are virtually on the river;
while Ulumbie is on the Namoi, and Llanillo is not far away from the Barwon.
602. The whole of the traffic, pretty well, from Walgett to Sydney or Newcastle, would consist of wool,
would it not? That would be the chief traffic and live stock. The latter, I suppose, would go to Sydney,
and the wool to Newcastle.
603. That is, of course, if the Pilliga route were adopted? Yes.
604. Could you tell us whether the river is navigable, as a rule, when the wool traffic is proceeding? I
should think upon an average it would be navigable three years out of four.
605. What are the months of the year when wool is sent in to Walgett? From August to November, or
to the end of the year.
606. Is the river, as a rule, higher at that period or lower, than from January to August? The big floods
have occurred in the early part of the year, in January—the big floods of 1890 and 1891; but generally
speaking I think the river is higher in the winter than in the summer.
607. Of course, in summer, evaporation takes place? Yes; the river is generally lower in summer.
608. The rainfall is less between August and the end of the year, than in the winter time? Yes.
609. Is it a fair thing to say that for three years out of four the river is navigable from Walgett to
Bourke? Yes.
610. Do you know where the wool goes to at the present time;—does it go to any of the other colonies
from Walgett? I do not think so. Some of the wool, I think, goes right on beyond Bourke.
611. When the river is up? Yes; I think that is only a very small percentage.
612. It goes to Victoria and South Australia? Yes.
613. *Mr. Black.*] Do you think it would be advisable to intersect the country, speaking broadly, which
lies between the Castlereagh and the northern line by lengthy lines which run southwards, or by shorter
lines running eastward? I think we must take into consideration the country to be served, and also the
terminus to be aimed at, as well as the question of the market to be reached.
614. Presumably the terminus is Sydney? Then they desire the shortest way to get there.
615. I do not want to consider only how you can most quickly get to Sydney, but by what method you can
best serve the greatest areas of country and of population, and the most productive areas? As already
stated, I consider the line from Mudgee to Coonamble is the best. It bisects the country to be served
better than any other scheme, and serves the greatest population.
616. What is the distance between Coonamble and the nearest point on the northern line at present?
Nearly 120 miles.
617. Then, if you construct a line from Mudgee to Coonamble, it leaves 120 miles of country, which is not
penetrated by any railway nor served by any railway line? Quite so, but what kind of country.
618. That was involved in the question I asked you;—could not that country, speaking of it as a whole,
be developed by means of a railway;—is it a class of country not fitted for agriculture? Some of it is
fitted for agriculture. About Baradine the country is well fitted for agriculture.
619. I am speaking of the country which would be intersected by a line drawn from Pilliga through Coona-
barabran, and thence on, perhaps, to the Western line? There was such a scheme, I think, many years
ago. I think there was a survey made through Coonabarabran.
620. Would it be better to construct two trunk lines running north or to construct lines branching off
from east to west? The lines leading to Sydney would be much better, especially to serve a pastoral
district. Wool is the chief freight to be obtained.
621. Speaking broadly, you are in favour of longitudinal lines? Lines tending southward, instead of lines
tending westward—lines aiming at the terminus to be reached.
622. And serving greater areas of country? Quite so.
623. By this means tending to develop the country? Exactly.
624. Would such lines be expensive on account of the grades, or the crossing of rivers? The line from
Warren to Walgett, as I have already stated, is not expensive.
625. The line I am thinking of now is the one which would intersect the country between that line and
the Northern line? With regard to a line from Pilliga to Coonabarabran, and on to Cassilis, joining
with the Northern line, portions of that line would be very expensive.
626. Either to the Northern line or to the Western line? The line from Pilliga, taken through Coona-
barabran, and on to Mudgee, would be at the same rate per mile as the line from Mudgee to Walgett—a
little over £3,000.
627. Do you not think a better intersection would be provided by a line from Dubbo to Walgett on the
one side, and on the other from Pilliga to Mudgee—would not that make a better intersection than if both
lines ran northwards out from Mudgee? It would be a very good intersection, no doubt; but I do not
think it would be justifiable. I do not think the country to be served would warrant the making of those
two railways, so closely parallel to each other.
628. Do you not think that if the country is good, and the railways are 60 miles apart, they can attract
sufficient traffic on each side to prove payable with increased settlement? Not 30 miles of pastoral
country.
629. Then you think there is not enough agricultural land? I do not think so; and I do not think you
would find a market for the produce if it were there. The cost of getting the produce to market would
be prohibitive.
630. If, in the area we are speaking of, there is so little good agricultural land, would it not be better to
construct spur lines to centres of population, than to endeavour to construct a line for the purpose of
developing settlement? I do not think so. In the case of any line that is made, the intention is to get
to

- to some market; and treating this as pastoral country, the desire is to reach Sydney. Therefore, I consider that the lines extending in that direction are the lines to be made. R. E. Jones,
M.I.C.E.
631. But you think that at present one would be sufficient? I do.
632. Which one do you think would be most beneficial to the country to be served, and to the revenue of the country? Looking to the revenue of the country, and from a railway point of view, the line having been made to Warren I consider the best way to reach Coonamble is from Warren. It is less costly and will obtain a great amount of traffic—leaving the line from Mudgee for future consideration. 29 Oct., 1897.
633. *Mr. Clarke.*] Are you well acquainted with the nature of the country between Narrabri and Pilliga? Yes, fairly so.
634. And also between Pilliga and Walgett? Yes.
635. In 1891 you reported on a line from Narrabri west on to Walgett? Yes.
636. The population of Pilliga at that time, I think, was not very large. According to your report it had about 150 inhabitants? Yes.
637. Do you think the population has since increased? Very slightly indeed.
638. From your knowledge of the country is the population likely to increase? I do not think so to any appreciable extent.
639. I suppose it is purely pastoral country? Yes. There is some good timber near, but it would not produce any great industry.
640. The timber, I suppose, would be sufficient for making sleepers for the railway line? Yes.
641. But would timber be an export from there to any other part of the country? The Roads Department has used it for bridges some 80 miles away. It uses a lot of timber from Pilliga.
642. Is there plenty of ballast upon the proposed line? No.
643. Where would the ballast have to be obtained from? Some of it would have to be obtained from Mollie, near Narrabri. But I think it would be better almost to bring it from the parent line.
644. It is only proposed to use a small quantity of ballast? I believe so.
645. If this line were constructed from Narrabri to Pilliga, I suppose, as a necessary consequence, it would have to go to Walgett? I take it that that is the object of it. Pilliga is no place to end it in.
646. In favourable seasons, when the Darling is navigable, a large portion of the wool traffic, both from portions of Queensland and New South Wales, would go on by water to Brewarrina, and thence to Bourke? Yes, unless favourable rates were given on the railway as against the rate from Bourke. I do not think that is likely. The rate at present for greasy wool from Bourke is £4; from Moree, £4; and from Narrabri, £3 11s. After looking at these rates, I am inclined to think that the railway freight could be fixed so that the traffic would be attracted by railway from Walgett, because by the river there would be insurance and other charges, and it is very likely nearly all of the wool would go by rail.
647. Is any proportion of the goods by the river Darling landed at Brewarrina without going on to Bourke? Not much.
648. According to your evidence and your report, you prefer the line from Warren to Coonamble? From the financial point of view. Not as serving the greatest extent of country, but as bringing the best revenue at the least expense to the country.
649. You are aware that the proposed line from Narrabri to Pilliga would leave a loss of something like £4,500? I am not surprised to hear it.
650. If the line went to Walgett do you think there would be any probability that the increased traffic would reduce the loss on the line? No, I do not think so. It is one of those lines, as I think I pointed out in my report, which would bring country into use that is perhaps not now available, and would give an enhanced value to Crown lands, and, unless the railway is to get some credit for that enhanced value, I do not think it is possible for it to pay.
651. Can you say how those Crown lands are held? There are different conditions. The Barwon is the boundary between the Western and Central Divisions; so that there are different conditions on each side of the river.
652. Have you any idea as to the period for which the land is held under lease? No.
653. You seem to know the whole of this country thoroughly, and reported upon it in 1891;—do you see anything to justify the building of this particular line, when it will leave such a loss to the country as has been estimated? I do not.
654. *Mr. Lee.*] Have you seen the country under consideration under flood? Yes.
655. What is the height of the flood that you saw? I saw one in January, 1891—travelled through it.
656. That was the highest flood that has occurred for many years? The flood in 1890 was slightly higher.
657. Was that the highest of which there is a record? Yes.
658. What would you consider about the average height above the surface. I am talking of the route from Narrabri to Pilliga, and Pilliga to Walgett? From Narrabri to Pilliga the railway route I should think could be put fairly above the flood-level, but from Pilliga to Walgett that would be impossible. I am talking of the natural surface; of course you could build it up.
659. But do you think that between Narrabri and Pilliga the surface is free from water? Yes, except in places—comparatively free.
660. Does not a large quantity of the flood-water come from inland, from creeks—water which finds its way down to the Namoi? Over-flow creeks, but there is no great volume of water in them.
661. Are they not the cause of the inundations, more than the overflow of the river? No, I do not think so.
662. Do you think the natural soil of which the railway embankments would be made is of that character that it would stand the pressure of flood-water? I think myself that the less embankment you could have on the natural surface, where the ground is liable to inundation, the better.
663. But as nearly the whole of the country is more or less subject to flood sometime or other, there would have to be some embankments made? Then I should make them as little as possible, and try to have as good drainage as possible.
664. Plenty of waterways? Yes; and I should make the banks with good convexity.
665. And is the soil of that nature that it will stand without ballast? Well, I do not think so; but the opinion expressed about the Moree line is against mine—they say it will.
666. What experience have you had on your roads—do they stand? I do not think the roads are a parallel case; I do not think you can make a comparison between the two.

- R. E. Jones, M.I.C.E.
29 Oct., 1897.
667. In the case of the roads, there would be a natural consolidation of the soil, while in the other case there would be a mere surface-packing? Yes.
668. Confining ourselves to the immediate question of the extension to Pilliga, from a flood point of view alone, do you apprehend any danger to a railway if constructed? No.
669. And from that point of view, then, the undertaking might be adopted? I think so, from an engineering point of view.
670. Provided sufficient waterways were given? Quite so. Of course, I do not know what has been done. I think the line will cross about nine creeks.
671. Which side of the river do you favour for railway construction if it should be decided to construct a line—north or south? North.
672. For what reason? I think it is better, country—better country to be served, and generally less liable to floods. There is also the question of tapping the Collarindabri traffic. It would serve that traffic very much more easily than any line south of the Namoi. There is more settlement on the northern side.
673. As a railway route you favour the northern side of the Namoi, because the land is better and less liable to inundation? Yes, near to Walgett.
674. Starting from Narrabri, it would necessitate crossing the river? Yes; it would be more expensive in consequence of that. Perhaps it would mean making the junction at Narrabri, instead of Narrabri West.
675. I think there can be no doubt that the good country in that neighbourhood is on the northern side? Yes.
676. Until you get some considerable distance away, and then you get in the neighbourhood of Coonamble? Yes.
677. But the country likely to be influenced by the Pilliga line really lies to the north? Yes, and of course westerly. The line projected to Pilliga is, I take it, to obtain the Walgett traffic.
678. I notice that in your report of 1891 you made no reference to any possible grain traffic, but confined your estimate of traffic entirely to wool, station supplies, timber, passengers, mails, and stock;—is that because you are of opinion that the country is not suitable for agriculture? I think so, and another reason is because I understand the carriage of grain is scarcely payable.
679. But apart from that consideration, your observation leads you to believe that the country is not capable of producing grain? There are little portions adjoining the Namoi where they could grow grain, and on some of the creeks. As I have pointed out, on the Dubbo and Baradine Creeks there are at present grain crops.
680. In favourable seasons? Yes.
681. But at the best it would be an uncertain crop? Yes. I think cultivation has been tried at Narrabri, and has failed. In my report I put the cultivation down as virtually *nil*.
682. With the exception of some patches for station use, I suppose cultivation is not carried on there by the settlers? No.
683. Might that be accepted as a fair indication of the impracticability of the industry there? There is no doubt that a part of the Pilliga scrub could be cultivated if it were cleared; but the cost of clearing would be out of all proportion to the results. At present it is not even occupied.
684. What would be developed if a line were taken to that country? No industry that I can see, except as to timber from the Pilliga forest, and the pastoral industry.
685. And there would be the station produce and the goods to the stations? Yes.
686. At present one is compelled to come to the river, and the other to go a certain distance? Yes.
687. The question is, would the extension of a line to Pilliga have the effect of increasing the production of the station properties? I do not see how it could make the land sustain more sheep to the acre than it does at present.
688. That being the case, if the line were constructed, and it showed a heavy loss the first year, your reasoning would point to the fact that there would be no prospect of that loss being arrested? Quite so.
689. I notice that you estimate the wool tonnage—that is, if the line were made from Narrabri West to Walgett, at £7,338—how did you arrive at that? I took the number of sheep within the trafficable area, and I based my estimate upon the quantity of wool produced from so many million sheep, and on that data I calculated the weight. I assumed that the rate would be the present rate to Narrabri, with a diminishing rate as to the distance increased.
690. And you also included 950 tons from Queensland? Yes.
691. Then your estimate would include the whole of the wool produced within that area, and right down to Walgett, and north and south of Walgett, and possibly from the other side of the river from Walgett? Yes; within the trafficable sphere shown on my sketch map.
692. You estimate that all that wool would come to the railway? Yes.
693. You are aware that of late years the conditions on the Queensland side of the border have very much altered? Yes.
694. Owing to the extension of the Queensland railways? Yes.
695. At the time you made your estimate there was no export duty in force in Queensland? No.
696. And since then the railways in Queensland have been extended? Yes.
697. Consequently if the time should come when the export duty is removed, this country will never get the traffic from the south of Queensland that it used to get? No.
698. Therefore, your estimate of 950 tons of wool from Queensland might, at this period, be viewed as somewhat problematical? Yes.
699. I wanted to direct your attention more particularly to your estimate of the wool traffic, because it differs very largely from the Departmental estimate. It is estimated now, after very careful investigation by the railway officer, that, if the whole of the traffic were obtained, including that which comes down the river, and including all the general goods to the district, and the stock and wool from the district, as well as the passengers and mails, the total earnings of the line would only be £4,723, or a little more than half of your estimate? Yes; but mine was from Narrabri to Walgett, and the estimate of which you speak was from Narrabri to Pilliga, which is only for one half the distance.
700. But still the line to Pilliga would take all the wool? No; as from the Goodooga district it would still go to Brewarrina, whereas if the line were made to Walgett it would most probably go there. Then there is other traffic, such as cattle.
701. If Pilliga would take all the wool, there would be little traffic for the other part of the line covered by your estimate? In my estimate I included the mileage rate between Pilliga and Walgett. 702.

702. Even if you doubled the railway estimate, that would be £9,000? Even then my estimate would be in excess for wool. The number of sheep has diminished since I furnished my report, which I think was made in a most successful year. R. E. Jones,
M.I.C.E.
29 Oct., 1897.
703. However, you give a very good reason for your estimate—you take the number of sheep? Yes.
704. And probably, on the whole, you are not very far astray as far as the wool is concerned, though you might be a little astray as to Queensland? Yes.
705. You are certain that no increased traffic from any source could be expected if the railway were extended, and that nothing that would occur in future would justify railway construction? There would be some revenue from timber which is not obtained now. There is a splendid forest of timber behind Pilliga. It is probable also that the stock traffic would be greater than it is now.
706. But the timber traffic would be limited as far as the railway is concerned, and the traffic in stock would depend very largely upon the seasons? Yes. I cannot see that there would be any increase of traffic from any other source. There would be no new industry created, and the railway would not much affect the pastoral industry, or the amount of wool to be produced.
707. All that traffic has to come to the railway now? Yes.
708. The wool is carried to the railway, and the live stock convey themselves to the railway? Yes.
709. And it is only in very bad seasons—wet seasons—that the traffic is suspended? Yes. The only thing that would, perhaps, cause an increase of traffic would be the facility for quick conveyance.
710. For how long have you known the roads to be closed to wheel traffic? I have not known them to be closed to wheel traffic.
711. Not entirely? No.
712. In wet weather, of course, they are difficult? Yes; during the 1890 flood I did not happen to be there. The roads towards Walgett were then closed, because I know they had to use boats for some time during that flood.
713. But even the construction of a railway would not save the lives of the stock on the run in time of flood? No.
714. It would appear, then, from your evidence that the only good that would be secured by the construction of a line would be to give easier transport for the produce coming from the country, and the goods going there? Yes.
715. But you do not see how it is going to result in the settlement of the country—in close or small settlement? No, I do not think it will.
716. From which a large quantity of traffic would be obtained? No.
717. *Mr. Wright.*] Looking at the country from the Upper Barwon to the Narran as the objective point, which line, in your opinion, would best serve the inhabitants of the district by giving them cheap transport, and which line at the same time, in your opinion, would open up the largest area of country for settlement with a likelihood of successful settlement? I think the line from Mudgee to Walgett would answer the whole of those objects. Of course, I do not mean to continue it beyond Walgett.
718. A line from Mudgee to Walgett would secure to all that country cheaper transport, and afford the largest possibility of future development? Yes. It is the most direct route to Sydney, intersects the country that is not at present served in the best manner, and serves the largest amount of population within the area of the country at present unserved by a railway.
719. And how about its capacity for carrying increased population? I think there is likely to be a great increase, especially between Mudgee and Coonamble.
720. It is more likely than any other route to develop the country? Yes.
721. *Chairman.*] Your report virtually decided, in your opinion at least, that the Walgett traffic should reach the seaboard at Sydney? Yes.
722. Although the distance from Walgett to Newcastle is 40 miles shorter than the nearest route to Sydney? Yes.
723. Why, in your opinion, should Sydney and not Newcastle be regarded as the outlet for the Walgett produce since Newcastle is nearer than Sydney? I do not consider that there is a reason why Sydney should be preferred to Newcastle. I did not consider that then, nor do I now, except with regard to passengers. I know that passengers all want to get to Sydney rather than to Newcastle.
724. In your report you make it clear that it is your opinion that the Walgett produce will reach, eventually, the port of Sydney, and will not use Newcastle for over-sea purposes;—can you inform the Committee what reasons brought you to that conclusion? My first reason was that with regard to passengers; they all desire to reach Sydney. With regard to wool, although at present much of it from the north goes to Newcastle, yet a fair percentage passes Newcastle, and comes on to Sydney, while other portions may be loaded in ships at Newcastle with the desire to reach Sydney, Sydney being the ultimate port for the delivery of the wool.
725. Have you any doubt about that? No.
726. Then, with regard to back freight, imports into the Colony, have you taken into consideration whether the station supplies, and goods of that class that would pass up the line to Walgett, would be landed first in the port of Newcastle, or in the port of Sydney;—have you any knowledge with regard to that point? I have no knowledge. All I know is this: that at present several of the stations in the neighbourhood of Walgett get their supplies presumably from Newcastle or from Maitland. I do not know whether they are imported direct to Newcastle or come from Sydney.
727. You have said that you prefer the line from Warren to Walgett, *via* Coonamble? Yes;—what strengthened my opinion in favour of that railway was, that the country round Coonamble had to be reached by a railway from some point. Assuming that Coonamble must be served by a railway, I considered it was the easiest mode of reaching Walgett, the distance being only 68 miles, as against 114 miles from Narrabri.
728. Irrespective of Walgett, a railway will have to be taken some day to Coonamble, and therefore you have to consider the case of Narrabri and Walgett *versus* Coonamble and Walgett? Yes.
729. Now, compare those two cases? The line from Coonamble to Walgett passes through rich country; it is only 68 miles in length, and can be made at a cost of £186,000, as compared with £256,000, the cost of a line from Narrabri to Walgett, the distance of the latter being 114 miles. I did not overlook the question of the country to be served by both these lines. The country along the route from Narrabri to Pilliga I have already described on the south side. On the northern side, owing to want of bridges over the Namoi, and

- R. E. Jones,
M.I.C.E.
29 Oct., 1897.
- and means of communication, the railway would, perhaps, be of little advantage to settlement. Proceeding further with the question, and regarding Coonamble as an objective point, I have already explained that the extension of the railway from Nevertire to Walgett, to some extent, alters the problem to be solved. A line from Coonamble to Warren, although it is a longer route to Sydney, furnishes easier grades, and therefore less cost in working, as compared with the route from Coonamble to Mudgee. This, however, would only affect such produce as came *via* Walgett, Coonamble, and for a portion of the distance towards Warren, because, as you approach Warren from Coonamble, and get out of the direct line, neither route would have any advantage over the other as regards distance to Sydney.
730. Is that tract of country a very important piece of country—the country that would be legitimately tapped by Walgett, and the country from Walgett to Coonamble, and down, say, along a third of the line from Coonamble to Warren—is that country that would produce a great deal of traffic to the railway? I think it would produce a very large amount of traffic from the pastoral industry, consisting of wool and station supplies.
731. Are there any local reasons, in your opinion, for the construction of a line between Dubbo and Mulooran? Not sufficient to justify the large expenditure that would be needed.
732. Except as portion of the design you laid down? Yes.
733. And the same remarks would apply from Mulooran to Mudgee? Quite so.
734. The first-mentioned line must be aided by other traffic, and the last-mentioned one, from Mulooran to Mudgee, to be justifiable, must depend upon Coonamble? Yes, on its being extended towards Coonamble.
735. You have already said that you believe the Coonamble district is entitled to a line? I consider the Coonamble district is entitled to a line.
736. Is the Walgett district entitled to a line? Well, there are different interests coming in there. There is the water traffic. Then, again, if a railway were made from Byrock to Brewarrina, that would enter into competition with a line to Walgett. It is only 76 miles from Goodooga to Brewarrina, and by the road from Goodooga to Walgett it is 95 miles. By another route it is 90½ miles.
737. Have you a statement with you of the Crown lands lying on these various routes? No; I have not.
738. You have not considered the possibilities of any railway extension beyond Walgett? No; I regard Walgett as the final point in that direction.

TUESDAY 2 NOVEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

Henry Chamberlaine Russell, C.M.G., Government Astronomer, sworn, and examined:—

- H. C. Russell,
C.M.G.
2 Nov., 1897.
739. *Mr. Hassall.*] You have some information to give the Committee with regard to the rainfall in that part of the country which would be affected by the construction of the proposed railway from Narrabri to Pilliga? I have here the records of a number of stations between Narrabri and Walgett at which observations have been made for a sufficiently long time to enable us to determine the average rainfall. At Narrabri the rainfall is 27·39 inches; at Edgeroi, 26·84—Edgeroi is about 20 miles north of Narrabri; Wee Waa, rainfall is 26·04; at Boolcarrol, a station north-north-east of Wee Waa, it is 25·25 inches; at Barra, Baradine, 40 miles south-south-east of Wee Waa, 25·18 inches; at Pilliga, 27·77 inches; at Deenderrah, 25·26 inches; at Oreel, 20 miles further north, 22·46 inches; at Pilliga, 20 miles to the south, it is 21·71 inches; at Terrembone, going still further south, it is 21·96 inches; at Wingadee it is 20·07 inches; at Goangra 20·04 inches; at Walma 22·26 inches; at Mercadool 24·02 inches; at Collarendabri, 20·98 inches; at Walgett, 20·08; at Quabothoo, 20·07; at Yowindah, which is west of Walgett, 21·70 inches; at Wilkie, 20 miles west-north-west of Walgett, it is 22·37 inches; and at Dungalear, which is due north of Walgett, it is 19·60.
740. There is a gradual increase of the rainfall as you go west from Narrabri? Yes; and it is rather striking just here, because Narrabri is on comparatively high land. At Rangari, a station to the east of Narrabri, and not very far from Barraba, the rainfall is 33·50.
741. Can you tell us the rainfall going west from Walgett towards Brewarrina? It drops from about 20 inches at Walgett to about 17½ inches at Bourke.
742. Judging by these records, there would not be much likelihood of successful agriculture beyond Walgett? The rainfall at Walgett is about 20 inches a year, and is pretty easily distributed between the two halves of the year. At Narrabri it is rather better in the second half than in the first half of the year; but at Walgett it is a little better in the first half than in the second half of the year. Between these two places the rainfall is nearly equal in the two halves of the year.
743. Is the rainfall at such periods of the year when it would be beneficial to crops? I think so.
744. Have you any records of the temperature in this part of the country? This is a very hot part of the country; but I did not know that you would require information as to the temperature. However, I will send it to you.
745. How does this part of the country compare with the country between, say, Parkes or Condobolin and Hillston? There is more rainfall in the northern part of the Colony, but the temperature is several degrees hotter.
746. It is said at Hillston that a rainfall of about 20 inches is ample for the successful cultivation of wheat; of course, the question of temperature must also be taken into account? I have no personal experience in growing cereals, but I know that a very hot country does not produce as good wheat as a colder

colder country. Speaking from memory, I think that with a rainfall of 20 inches at Walgett you would get, perhaps, 9 inches in the second half of the year; while at Hillston you would get, perhaps, 11 inches. H. C. Russell,
C.M.G.

747. You think that any difference in temperature between the two places is to the advantage of the southern district? Yes; the temperature falls at the rate of about a degree for each degree of latitude as you go south. That would make a difference of about 3 degrees between the two places. 2 Nov., 1897.

Charles Edward Rennie, Chief Draftsman, Department of Lands, sworn, and examined:—

748. *Chairman.*] You have some information to give to the Committee? Yes. I produce a plan showing the tenure of land within 20 miles on each side of the route of the proposed railway from Narrabri to Pilliga, and 20 miles beyond Pilliga. Near Narrabri the scope of country that would be affected by the proposed line is narrowed down both on the northern and on the southern side of it by the influence of the main North-western line. C. E. Rennie.
2 Nov., 1897.

749. *Mr. Lee.*] What is the extreme north-easterly point of the area marked on your map? It is near portion 30, parish of Burrendong. Within the area shown on the map there are 425,350 acres of alienated land, 43,610 acres comprised in settlement leases, 591,630 acres included within reserves, and 505,180 acres of other Crown lands. The total amount of Crown land, including reserves, is 1,096,810 acres. Of the Crown land, 105,880 acres are included within leasehold areas expiring between 1898 and 1900, 233,300 acres are held under occupation license, and 166,000 acres are untenanted.* The areas quoted as under lease and occupation license do not include reserves within the holding.

750. *Chairman.*] The land under settlement lease has gone from the control of the Crown? Yes. The settlement leases run for twenty-eight years. The unalienated Crown land, excluding reserves, is tinted brown, the reserves are tinted green, the alienated land is tinted blue, the blue shading shows the settlement leases, and the red spots are the townships of Wee Waa, Pilliga, and Narrabri.

751. Have you any knowledge of this country? I have no personal knowledge of it, but I know from the district surveyor's report that the bulk of the large forest reserve, on the south side of the river, is very poor land.

752. What is the area of that reserve? About 315,000 acres.

753. Is there no possibility of there being any settlement upon that land? I believe it is intended to consider the question of making the part near Pilliga available for settlement; but it would only be in large areas.

754. How many acre blocks? I could not say. I only know in general terms that the question is being considered. The papers are not in the office.

755. At what distance from Pilliga is the part you speak of? I am speaking of the land within 24 miles south-east of Pilliga.

756. What is the large reserve shown in the south-west corner of the area marked on the map? That is a forest reserve; but I do not know anything about it.

757. *Mr. Lee.*] What is its area? Approximately about 96,000 acres

758. Are there any forest reserves on the north side of the Namoi? Not within the area marked on the plan.

759. What are the small reserves shown on the plan? Most of them are travelling stock reserves. There is very little Crown land on the north side of the river, compared with the area of Crown land on the south side of the river. The great bulk of the reserved land is on the south side of the river.

760. *Chairman.*] The large block of land on the south side of the river, coloured brown, is land held under lease? Yes; that is land held under different tenures. The block you speak of includes about 205,000 acres, roughly speaking.

761. Do you know anything about it? No; I have no knowledge of this country.

762. *Mr. Lee.*] On which side of the river are the settlement leases? There are some on each side of the river. There are some on the south side near Wee Waa; there are some nearly midway between Wee Waa and Pilliga, on the north side; and there are some within a mile or two of Pilliga, on the south side.

763. Does it not appear that nearly the whole of the land on the north side of the river has been alienated, except a few widely-separated pieces of Crown land? Yes; that is so.

764. There is very little land available for additional settlement on the north side of the river? Well, 56,400 acres upon Bugilbone holding are being subdivided into twenty-two settlement leases, and 53,700 acres on Drildool holding are being subdivided into twenty-one settlement leases.

765. When that country is taken up, what area will be available for additional settlement? The only land that will be left will be that included in the areas coloured brown.

766. There will only be odd pieces left? Yes.

767. If any large amount of settlement is to take place in the future it must be on the south side of the river? Yes.

768. But there you say the land is not suitable? A large part of it is poor.

769. When the settlement leases you speak of are taken up there will be only forty-three additional families upon the land? Yes.

770. Is the Department making arrangements for subdividing settlement leases on the southern side of the river? Not that I am aware of at present.

771. What land would be available there for the purpose? It would depend upon what was done with the reserves. All the country tinted brown would sooner or later become available for settlement.

772. When do the leases of the various runs expire? I have not those particulars with me now. †

773. Are there any reserves within this area giving refuge from floods to stock? I do not think so; but I could not be sure without looking carefully through the parish maps.

774. Could you speak of the land going out west towards the Barwon, beyond the coloured area? Not until I looked up the maps.

William

* NOTE (on revision):—Probably part of the last-mentioned area is under annual lease, particulars of which are not recorded on the maps at headquarters.

† NOTE (on revision):—Partly under occupation license; partly, probably, under annual lease.

‡ NOTE (on revision):—Edgeroi, 30 April, 1898; Boolcarroll, 30 July, 1900; Millie, 30 July, 1899; Burren, 10 July, 1900; Pilliga, 10 January, 1900; Bungle Gully, 10 January, 1899.

William McIntyre, Chief Electoral Officer, Chief Secretary's Department, sworn, and examined:—

W.
McIntyre.
Nov., 1897.

775. *Chairman.*] You have some information to give to the Committee with regard to the population of the district which would be affected by the construction of the proposed railway? I have made an estimate of the population within 20 miles on each side of the proposed railway from Walgett to Wee Waa, and 20 miles beyond Walgett; but I have not taken in Narrabri. The number of people living within that area I estimate at 4,244, and I have compared my figures with the figures for the divisions, and they are almost identical. The population of the Walgett division of the Barwon electorate is 1,262, and the population within the Burren, Millie, Pilliga, and Wee Waa divisions of the Narrabri electorate is 3,550. These divisions take in almost the same country as that for which I made my estimate. The Wee Waa division contains a population of 1,050, and has 245 electors on the roll. Half of the division lies north of the Namoi, and half of it south of the Namoi. West of the division of Wee Waa is the division of Pilliga, which embraces the Pilliga township, and extends to within a short distance of Walgett. The population of that division is 1,500, and it has 351 electors on the roll. Therefore, the population of the whole district, leaving out Walgett and Narrabri, is about 2,500, the greater number of whom live on the south side of the river.

776. *Mr. Wright.*] Is it correct to allow four and a half people to an elector in the sparsely-populated districts? I think that is a fair allowance within the Eastern Division. I have checked my estimate by comparing it with the police returns collected in March, 1896, and I find it to be very close.

777. You have taken all reasonable precautions to ensure accuracy? Yes. Taking approximately 80 miles of the country on the south side of the Namoi, between Walgett and Narrabri, and beyond the influence of those towns, there appears to be a population of about 2,000 settled there. The population of the municipality of Narrabri is 2,450, and of West Narrabri 750. This estimate was furnished by the Council in February of this year.

778. *Mr. Lee.*] Can you tell us whether the population of the district has increased or decreased during the last few years? No; I have not looked into the matter.

779. I suppose your information only goes back to the time of the passing of the present Electoral Act? Yes.

Percy Scarr, Principal Assistant Engineer, Roads Branch, Department of Public Works, sworn, and examined:—

P. Scarr.
2 Nov., 1897.

780. *Chairman.*] You have some information to give to the Committee? Yes; I have here a statement showing Schedule roads affected by the construction of the proposed railway from Narrabri to Pilliga:—

Item No.	Mileage.	Roads.	Amount Voted.						Amount Expended.
			1892.	1893.	1894.	1895.	1895-6.	1896-7.	
239	44	Coonabarabran to Tenandra .....	.....	.....	.....	.....	400	400	£ 724 12 0
246	62	Boogaldi to Pilliga .....	.....	200	80	80	50	100	365 9 5
373	41	Coonamble to Combogolong	360	430	.....	140	350	300	1,194 5 5
374	15	Coonamble towards Billaroy .....	.....	75	40	20	40	30	108 0 7
375	28	Coonamble towards Baradine .....	.....	150	80	80	80	80	317 9 3
376	43	Coonamble towards Tunderbrine .....	.....	.....	.....	55	120	100	275 8 1
970	58	Narrabri to Pilliga .....	.....	870	700	500	500	490	2,438 10 9
974	25	Walgett Road, at Wee Waa, up Pian Ck. ....	.....	.....	60	50	70	70	130 3 7
1372	85	Walgett to Goondabloui .....	.....	.....	.....	.....	.....	300	185 14 6
1373	105	Walgett, via Goodooga, to Brenda .....	.....	555	450	270	500	450	1,647 2 7
1374	29	Walgett to Combogolong	350	350	380	80	150	100	1,017 7 0
1375	70	Walgett to Brewarrina .....	.....	70	40	.....	280	150	269 8 0
1378	40	Collarendabri towards Narrabri .....	.....	150	120	120	230	200	844 6 6
1379	60	Collarendabri towards Angledool .....	.....	300	110	120	200	200	689 17 11
1382	66	Pilliga to Walgett .....	.....	700	450	240	400	350	1,488 3 3
1383	60	Pilliga, via Bugilbone, to Eurie .....	.....	295	200	100	200	150	610 19 6
1384	49	Wee Talaba, via Angledool, to Goodooga ..	.....	125	40	50	80	80	326 6 4
			710	4,270	2,750	1,905	3,650	3,550	12,633 4 8

Total amount voted..... £16,835 0s. 0d.
 ,, expended 12,633 4s. 8d.

781. What has been the average expenditure on the road between Narrabri and Pilliga? Roughly speaking, about £500 a year.

782. That would practically be the only road which would be affected by the construction of the proposed line;—the cross roads cannot be materially affected by it? Probably not; but it is very hard to say what roads would be affected.

783. What is the distance by road from Narrabri to Pilliga? Fifty-eight miles.

784. Then, if you saved the whole of the money voted for the road between Narrabri and Pilliga, you would only save £10 a mile? Yes.

785. *Mr. Hoskins.*] I suppose it is hard to get materials for roadmaking in this district? I believe it is; but I have never been in the district, and I have no personal knowledge of it.

786. There is very little done to the roads there? Comparatively little.

787. I suppose you only expend money in the worst places? Yes.

788. It would cost as much to make a good metal road as to make a light railway? Yes; as a rule, it does cost as much in that part of the country, because of the want of material for road-making.

WEDNESDAY, 3 NOVEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).	
The Hon. FREDERICK THOMAS HUMPHERY.	JOHN LIONEL FEGAN, Esq.
The Hon. JAMES HOSKINS.	THOMAS HENRY HASSALL, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	GEORGE BLACK, Esq.
HENRY CLARKE, Esq.	FRANCIS AUGUSTUS WRIGHT, Esq.
CHARLES ALFRED LEE, Esq.	FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

James Patrick Joseph Bell, sworn, and examined:—

789. *Chairman.*] You are a resident of Walgett? At the present time I am residing at Bondi; but I have a property on the Castlereagh, near Walgett. J. P. J. Bell.
3 Nov., 1897.
790. *Mr. Farnell.*] How long have you been living near Walgett? For seven years last January.
791. How are you interested there? In grazing and farming. I am a selector.
792. What is the extent of your holding? I and my two brothers hold between 22,000 and 24,000 acres.
793. How did you acquire that area? Some of the land we selected, and some we bought from other selectors.
794. What is the extent of your freehold, and what is the extent of your leasehold? Altogether I think we have about 23,500 acres, of which one-third is conditionally purchased, and the remainder conditionally leased land.
795. How far is your property from Walgett? I think that the nearest boundary is 14 miles from Walgett.
796. Would you be within the influence of any railway to Walgett? Yes; a railway to Walgett would be within 14 or 15 miles of our place.
797. In which direction does your property lie from Walgett? It fronts the Castlereagh, and is almost due south from Walgett.
798. What number of stock do you carry? We have shorn as many as 21,000 sheep.
799. What is the average carrying capacity of the run? This year we shored 14,000 sheep, and we have shorn as many as 21,000. Last year the season was very bad.
800. You would carry a sheep to every acre and a half? Something like that.
801. Do you know the average rainfall there? We keep a rain-gauge; but I have not a copy of the record with me.
802. Would it be about the same as the rainfall at Walgett? Yes, about the same.
803. Do you use your holding for anything except grazing? I have grown hay. I have put in about 23 acres of wheat for hay.
804. Have you grown oaten hay? No; I have always grown wheaten hay.
805. You have never taken the trouble to ascertain the yield of wheat per acre? No; because we cut the crop for hay. Yesterday I got a letter saying that this year we should get about 41 tons of hay.
806. Do you think the land is adapted for the growing of cereals? Well, the seasons vary. I have had six crops off my land, and only one of those crops was a failure.
807. From what cause? Because of the drought. Even with that crop we got about 1 ton to every 4 acres, or something like that.
808. Is your wheat ever attacked by rust? No; it is very clean. There is no sorral there. Of course it is new country.
809. Are there many holdings round about you where they have gone in for wheat-growing? No; I am the only one.
810. Do you think there is a good future before the district if railway facilities are given? Yes; it is one of the best districts in New South Wales for irrigation.
811. How would you irrigate there? I am going to irrigate from an artesian bore which is 5 chains from my boundary. Next year I shall irrigate 80 acres from it. The soil is very heavy black soil, which will last for years. At the Pera Bore the soil will not last long, no matter how much water you put on it, because it is very light. This is a very strong soil, and if you put water on it it will last for years.
812. You do not think that it will require periods of rest? No; I think you could cultivate it year after year, so long as you used water.
813. Have you any scheme to propound for general irrigation? The country there is so level that water could be run for miles anywhere. Then, too, water is found at no great depth. The bore adjoining my property is only about 1,450 feet deep.
814. You would not irrigate by putting weirs in the river? I think it would be cheaper to irrigate from bores. Of course the country could be irrigated from the rivers. The Namoi and the Barwon are both large rivers.
815. Do you think that artesian bores will be put down by private enterprise? Yes; there is a bore about 5 miles from my place which was put down by a private company.
816. What is the character of the country near your holding? It is practically open plain country, covered with blue grass and Mitchell grass. The soil is red and brown, or black.
817. Do you know if there is any area of Crown land available for settlement in that part of the district? Of course there are the resumed areas, which have not yet been thrown open. Then there are the remaining portions of the leaseholds of Euroka, Goangra, and Boolroi.
818. Do you think the proposed railway would serve the district pretty well? I think so.
819. Do you know the country on the north of the Namoi? Yes.
820. Do you think it would be better to take the railway on the south side of the river, instead of on the north side? Yes.
821. Where do you send your wool now? To Sydney *via* Narrabri. I believe that this year a portion of it went *via* Nevertire. That was because the carriers came through from Coonamble, and they would not go to Narrabri.
822. If a railway were constructed to Pilliga, would you take advantage of it? Yes, certainly.

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823. Do you deal in fat stock to any large extent? No. In most cases I sell my fat stock, on the ground, to Richards, to the Aberdeen Company, and to others.
824. If the railway were extended to Pilliga, I suppose advantage would be taken of it for the conveyance of live stock to market? Yes. I have had a good deal of experience in Riverina and other places; but I never saw a district where stock mature more rapidly than they do in this district. If we had a railway close to us we could send fat lambs away more quickly and earlier than other districts. We cannot travel lambs on the roads for more than five or six days or a week. After that time they knock up.
825. Have you ever known the Castlereagh to cease running? Yes; it is not a permanent river at all. I have known it to stop running for six months at a time. We dam it.
826. If a railway were constructed to Brewarrina, would it be of any advantage to you? It would be of no use to us at all.
827. It would be just as easy to send produce to Narrabri as to Brewarrina? It would be almost impossible to send produce to Brewarrina, because of the creeks and the swampy character of the country, and the want of good roads.
828. Do you know the country between Pilliga and Narrabri? Yes.
829. Is it subject to inundation by floods? No.
830. Do you think it is country suitable for railway construction? Yes. The country between Narrabri and Pilliga is not as good as the country between Pilliga and Walgett. You get on to the good country after you pass Pilliga.
831. Do you think there would be any justification for extending the line to Pilliga without making Walgett the objective point? I think that if you stay at Pilliga you will be staying on the edge of the cream of the country.
832. Have you tried fruit-growing out there? No. There is a little fruit-garden on the river close to me—a Chinaman's garden, with twenty or thirty trees in it.
833. How do the trees seem to thrive? I could not say. I should not think that it was a fruit-growing country.
834. Are there any mineral deposits round about Walgett? I do not think so. I have heard of some out towards the Narran Lakes, but I do not think it is a mineral country.
835. *Mr. Hoskins.*] Do you reside principally at Bondi? Yes.
836. Have you ever lived any length of time in the district where your run is situated? Yes; I lived there until about nine months ago. I lived there for about six years.
837. How far are you from Pilliga? About 60 miles, I think.
838. During the six years you have been in the district, how have you sent your wool away and got your stores up? We have sometimes got our stores from Narrabri. For two years we sent our wool from Nevertire, and during one or two wet seasons it went down the river.
839. In, say, five years, does not the greater portion of the wool produced in the Walgett districts go down the river to Bourke? I should not like to say that. I do not think the river takes it so often. The wool has gone that way for two or three years; but it was compulsory to send it by steamer in those years because the teams could not travel any other way. In the black-clay country, when the season is a wet one, the teams cannot travel.
840. If the river were navigable this season or next season, would you send your wool by steamer, or to a railway? I would send it to the railway if I could get it there. I have had to pay £1 a ton to have my wool taken to the steamer, and I can get it taken to Narrabri for £3 a ton. When I have sent to the steamer I have been unable to get teams to take it to Narrabri. In wet seasons it is impossible for carriers to travel to Narrabri, and we have had the greatest difficulty in getting the wool taken to the steamer.
841. Is it not a fact that when the river is navigable the greater portion of the produce of the district is sent by steamer to Bourke? A good deal is sent that way. All the stations on the river send that way.
842. Is it not cheaper to send the wool from Walgett to Bourke by river than it is to send it by road to Narrabri? No; in most cases the road is the cheapest. We have more railway carriage to pay from Bourke to Sydney than from Narrabri to Sydney. When the teams are able to travel that way we can send it to Sydney more cheaply by sending it *via* Narrabri.
843. When there has been a good deal of rain the country is not traversable? It is almost impossible to get the wool away in a wet season. I have known of wool being four or five months on the road from a place near Walgett to Narrabri. That was in 1890.
844. But in a season like that is not the wool generally sent by steamer to Bourke? Yes, when the river is high enough, and the roads are too bad to travel to Narrabri. Of course people on the river banks below Walgett mostly send by river if they can get a steamer.
845. If by a series of weirs and locks the Darling were made navigable from Bourke to Walgett for nine months in the year, do you not think that the greater part of the produce of the district would be taken by river from Walgett, instead of by railway from Narrabri or from Walgett? I do not.
846. If the river were navigable more often than it is at present, would it not be cheaper to send the wool by water instead of by railway? Yes; but when the wool gets to Bourke, it is further from Sydney than it is at Walgett. There is more railway carriage to pay from Bourke.
847. *Mr. Fegan.*] Did I understand you to say that it was not expedient to construct a line from Narrabri to Pilliga? Of course, at Pilliga you are only on the fringe of the good country. I think it would be better if the line went to Walgett.
848. *Mr. Hoskins.*] The country between Narrabri and Walgett is all pastoral country? Yes, I believe it is.
849. There is no close settlement there? There are a great many selectors between Pilliga and Walgett, people holding from 2,500 up to 5,000 acres.
850. But the people there are all engaged in grazing pursuits? Yes.
851. Has there been any accession of population worth mentioning during the last five years? Yes, there has been a large increase.
852. How has this been brought about? Well, at Yowindah something like 45,000 or 46,000 acres were thrown open about nine months ago in blocks of from 3,000 to 4,000 acres. Those blocks have all been taken up. All the available land in the district has been taken up.
853. How far would that land be from the route of the proposed railway? Yowindah runs from the Castlereagh across to the Barwon.
- 854.

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854. It would be a long way from Pilliga? It would be down the river from Walgett.
855. Towards Bourke? Yes.
856. The persons residing there could use the river when it was navigable? Yes, of course.
857. *Mr. Lee.*] Have you any idea of the estimated traffic on the proposed railway? No.
858. Are you aware that, according to the calculation of an officer of the Railway Department, the proposed line would show a very large loss? No, I am not.
859. Will you explain to the Committee what prospect there would be of the line paying in the future? Well, there will be more land available for settlement within a short time. I think they have only about twelve months to run at Euroka.
860. How many acres would there be there? I think 40,000 or 50,000 acres.
861. How many acres are required? From 600 to 2,500 acres.
862. But what area does a man require to make a living? I think from 2,000 to 2,500 acres, although close to Walgett they have put people on to blocks of about 600 acres. I do not think, however, that that area is large enough.
863. Euroka, then, would be capable of maintaining about twenty-five additional families? Yes. About the same number might be put on Goangra. Come-by-chance is, I think, taken up.
864. With the exception of a few portions at some considerable distance back from the line, the land on the northern side of the railway has nearly all been alienated? I believe that at Eury-Eury they have about 60,000 acres of purchased land; but it is flooded country—the worst country on the place.
865. Are you aware that all the land on the northern side of the river within the influence of the proposed railway has already been alienated—that is, with the exception of a few isolated patches? No, I am not aware.
866. Are you aware that the available land on the southern side of the Namoi is chiefly comprised in forest reserves? Down at Pilliga, between Wee Waa and Pilliga.
867. Beyond Pilliga? I know that there is a very large timber reserve on the southern side of the river, extending for about 40 miles, I believe.
868. Are you aware that the land on the southern side of the river is much inferior to the land on the northern side of the river? I believe that it is.
869. Do you know of your own knowledge? Yes; I have seen the inferior land. It is heavily-timbered country.
870. If that land were thrown open for settlement would it be taken up? There is a lot of country there which I admit is not worth taking up.
871. Therefore we must not look for any large amount of settlement in that part of the district? No; I think that any further settlement would be between Pilliga and Walgett.
872. The country is already well stocked with sheep and cattle—would additional settlement mean more sheep and cattle? I think there can be no doubt about that.
873. To what extent? To a very large extent. Small holders always increase the carrying capacity of a district.
874. Do you think it possible that the carrying capacity of the district may be doubled? I should not like to say that, but I think that the additional population would cause a certain amount of extra traffic.
875. The position is this: the district is already well stocked, and it is shown that if a railway were constructed there would be a large loss on it every year; I should like to know from you whether settlement is likely to increase to such a degree that the consequent increase of freight will make up that loss? I should not like to say that the produce of the district will double; but it will increase very largely. A large paddock with one tank in the middle of it will not carry as many sheep as 2,500-acre blocks each with a tank of its own.
876. Is the country capable of carrying twice as many stock as it is carrying now? I should not say that the number of stock would be doubled; but with small settlement it would be increased very largely.
877. I suppose the increase in freight would be in connection with wool and station produce? Principally.
878. There might be additional traffic from agricultural centres? I think there will be a good deal of irrigation in that district.
879. Irrigation is a long way off at the present time; there are so many other districts which have an ample rainfall for wheat-growing that wheat-growing by irrigation is too expensive at present; irrigation in that district must at any time be uncertain? It is uncertain.
880. There would be seasons when they would get very good crops there? Well, I have only had one failure out of five or six crops. This year we have had a splendid crop. The cultivation paddock is about 18 miles from Walgett, and about 2 miles from the Castlereagh.
881. Did you have five good seasons in succession? Very nearly.
882. Did you choose your seasons? No. Last year the crop was a failure; but the four crops before that were very good, and this year is a good crop.
883. It would be a stretch of the imagination to suppose that either hay or grain could be grown there in sufficient quantities for export elsewhere? I do not say that that will be a farming district.
884. Whatever is grown there will be consumed within the district? I believe that the district is the soundest grazing country that I have ever been in, and I have travelled a good deal. I have had a place in Riverina, and in other parts of the country. In this district we are free from foot-rot, from fluke, and from everything like that.
885. In your opinion, the settlers out there are entitled to railway connection, and if they got that connection they would be able to work their properties to greater advantage, benefiting by a saving in the cost of carriage, and the certainty of transit? Yes. Whenever an acre of land there is made available for settlement, it is balloted for. There is always a great demand for land in the district, and sometimes there are twenty-five applicants for one block. I do not think there has been a case during the last five months when land has not been balloted for, principally by people from the south.
886. Is the land being thrown open in settlement leases? I think that Yowindah has been thrown open in settlement leases.
887. Were homestead selections in existence in the district prior to the passing of the Act of 1894? No. On the other side of the Barwon there are what are called homestead leases.
888. The alienations in your district have been under the new Act, and chiefly in the form of settlement leases? Yes.

- J. P. J. Bell. 889. Sufficient time has not elapsed to show whether the land can be worked profitably under those conditions? I think so. Those who selected in 1890 ought to know by this time what can be done. I selected then, and it has been a profitable investment for me.
- 3 Nov., 1897. 890. You are of opinion that there is a fair prospect of the population increasing? I am sure of it.
891. You also think that there is a good prospect of the traffic increasing, though you cannot say how much? I am certain that there will be an increase.

THURSDAY, 4 NOVEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.	JOHN LIONEL FEGAN, Esq.
The Hon. JAMES HOSKINS.	THOMAS HENRY HASSALL, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	GEORGE BLACK, Esq.
HENRY CLARKE, Esq.	FRANCIS AUGUSTUS WRIGHT, Esq.
CHARLES ALFRED LEE, Esq.	FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and further examined:—

- J. Harper. 892. *Chairman.*] The question of connecting Walgett with either the western or the north-western line is under consideration;—will you explain why you believe that Walgett should be connected with the north-western line, or with the western line? I did not say that it should be connected with either.
- 4 Nov., 1897. 893. It is a question of Newcastle or Sydney being the port for Walgett? I can give information on that subject. I gave information before as to the returns of wool. I have had some information prepared with regard to goods, live stock, and passenger traffic between Sydney and Narrabri, and between Newcastle and Morpeth and Narrabri. In the year just terminated, the goods forwarded to Narrabri from local storekeepers—that is, locally sold in Newcastle—amounted to 1,600 tons. During the same year, the goods carried from Sydney and delivered on the train at Morpeth for delivery at Narrabri, amounted to 2,000 tons. The quantity carried by steamer from Sydney and loaded at Newcastle in railway trucks, was 120 tons. The goods loaded in Sydney was 1,050 tons.
894. *Mr. Lee.*] What was the point of destination? Narrabri.
895. Could you trace it beyond Narrabri? No; it would take two or three months.
896. You do not know whether those goods went to Moree, or where they went to? A portion of them, we know, did not go to Moree, because Moree would be included only for a portion of the period. Since the Moree line has been opened, these are the goods that were actually booked to Narrabri. I thought it would be sufficient if I showed the general trend of the Narrabri trade—the trade to Narrabri. The totals work out in this way—about 66 per cent. from Sydney, and 33 per cent. from Newcastle.
897. *Mr. Humphery.*] Newcastle and Morpeth? No; the Morpeth goods are all Sydney goods—steamer-carried from Sydney. The object of this is to ascertain the trend of trade. All the goods from Morpeth are carried from Sydney by steamer. It is a question of getting to Morpeth either by steamer or by rail.
898. So that you are distinguishing now between the traffic from Newcastle, and the traffic from Sydney? Yes.
899. *Chairman.*] To say that 33 per cent. of the traffic comes from Newcastle and 66 per cent. comes from Sydney is clear enough in itself; but it does not cover the case, because of the 33 per cent. from Newcastle a portion may have come by sea to Newcastle—it may have been in Sydney once? It may have been, certainly; but I think it is sufficient if the goods find their way to Newcastle and are sold at Newcastle, and go from thence to Narrabri.
900. *Mr. Lee.*] It does not matter how the goods get to Newcastle;—you are showing the proportion of traffic from there from a railway point of view? Yes; I am showing the amount of trade done direct with Newcastle as compared with that done direct with Sydney.
901. And it does not matter whether the goods are sent from Sydney to Newcastle? The object is, as far as rail-carried goods are concerned, to show where they come from and where they go to.
902. *Mr. Wright.*] Is it not possible that of the 66 per cent. of goods sent from Sydney, a great proportion was sold by Newcastle firms who have houses in Sydney also? That would not alter the fact of their coming from Sydney.
903. You are taking the point from which the traffic starts and the point at which it arrives? Yes.
904. *Mr. Humphery.*] What is the total tonnage by rail to Narrabri? The total tonnage to Narrabri from Sydney, Morpeth, and Newcastle is 4,770 tons. While on the subject of tonnage, I might remark, by the way, that the tonnage credited to the Pilliga extension is 2,350 tons. The tonnage carried, which is the chief tonnage carried to Narrabri, and which at the present time embraces the Pilliga traffic, the Collarendabri traffic, and part of the Moree traffic, amounted to 4,770 tons. I mention this, because it has been said that the estimate of traffic for Pilliga was a low one. As a matter of fact, the extension to Pilliga has been credited with half of the tonnage sent to Narrabri, which includes during part of the year the goods going out to Moree and the goods going to Collarendabri and the Queensland border.
905. Have you any means of ascertaining about what percentage of the whole of the traffic would go to other places than Pilliga? Yes; I have very fair means of knowing that, through having made inquiries into the Collarendabri line. As a matter of fact, there would be more traffic going to Collarendabri than to Pilliga.
906. *Chairman.*] Would any portion of the traffic representing 4,770 tons go eastward of the north-western line? No traffic of any extent would go in the direction of Bingara and Barraba. There might be a few small supplies, but nothing of importance. Then, with regard to stock, the total quantity of stock forwarded to Farley, at West Maitland, during the year, was 216 trucks. The total quantity forwarded to Flemington was 1,600 trucks, making a total of 1,816 trucks. That represents about 88 per cent. of the stock traffic that came through to Flemington, which practically means Sydney, the remaining 12 per cent. going to the neighbourhood of Newcastle.

907. *Mr. Humphery.*] What proportion of that 88 per cent. do you estimate would come from Walgett? Very little would come from Walgett. J. Harper.
4 Nov., 1897.
908. Between Walgett and Narrabri? I could not tell you without analysing the figures. The traffic varies so much according to the seasons. I could not tell you how much was carried during the seasons. I should say, relatively, a small quantity, because most of the stock came from the north of Narrabri and not from the west. Fat stock were sent from between Narrabri and the Barwon—from east of Collareendabri, and also from west and north-west of Collareendabri. Some of the stock came from due north—the Moree district. During the whole of that period we had not the line open and in our possession. It was in the contractor's hands, and no stock was being carried to any extent. However, the figures I have given show the total stock carried to those two stations during that year.
909. Are you speaking now of stock from Narrabri or from Moree? Narrabri.
910. Would that include the live stock to Narrabri? That is the whole of the stock carried from Narrabri during the twelve months ending September last.
911. Have you included in your estimate the whole of the stock from north of Narrabri? I have included the whole of the stock trucked at Narrabri.
912. What proportion of the 88 per cent. have you credited to the proposed extension now before the Committee? 900 trucks.
913. But what proportion of the 88 per cent.? I do not know. The figures with regard to the passenger traffic are also very significant. For the twelve months ending September last, there were 136 passengers booked from Newcastle, and 1,144 booked from Sydney, or 83 per cent. from Sydney, and 17 per cent. from Newcastle. Those were passengers to Narrabri.
914. How many passengers have you credited to the Narrabri-Pilliga line? 2,800. You could not take these figures from a comparison for the simple reason that these are only the Sydney and Narrabri passengers, while there would be local traffic in the other case.
915. As regards passengers you consider your estimate a very full one? Yes.
916. *Chairman.*] You have already given the figures with regard to wool? Yes; in answer to Question 411. It shows that 66 per cent of that traffic comes to Sydney.
917. Then the case stands in this way: Of live stock, 88 per cent. of the traffic comes to Sydney; of the goods traffic to Narrabri, 66 per cent. goes from Sydney; of the passenger traffic, 83 per cent. goes from Sydney; and of the wool traffic, 66 per cent. comes to Sydney. Those are the figures? Yes, with an increasing tendency, as far as wool is concerned, in the direction of Sydney. Every year the quantity of wool brought to Sydney is increasing. The wool offered in Sydney has for some time past shown a marked increase every year.
918. Have you given any returns as regards wheat? No.
919. *Mr. Hoskins.*] I suppose you know the Railway Department receives a good deal of traffic from Walgett *via* Bourke to Sydney? Yes. I desire to say that I did not unduly inflate my figures, for in the comparison as to how the wool was dealt with at Sydney and Newcastle, I did not take into account the wool which during the season came from Walgett to Bourke, and thence to Sydney. I dealt with only the rail-carried wool which came that year from Narrabri. I omitted altogether the 2,000 tons which were carried from Walgett. If that 2,000 tons, which absolutely came to Sydney, were added to the other wool which also came to Sydney, the percentage in favour of Sydney would be infinitely greater.
920. *Mr. Lee.*] You say that in your second estimate, which is really the estimate of revenue we are dealing with, you only dealt with rail-borne wool? Yes; in taking out the percentages coming to Sydney and Newcastle. I am giving the quantity of wool coming to Sydney and Newcastle respectively. It would have been unfair to Newcastle to include in my statement wool which came by river. I simply took the wool which found its way on to the northern railway that year, and showed its ultimate destination.
921. *Mr. Hoskins.*] You have given the amount of loading taken by rail to Narrabri. Do you not believe that a very much larger proportion of the loading that goes to Narrabri is sent to other districts than Walgett, and that Walgett gets a very small proportion of it? Yes, I am sure of it.
922. *Chairman.*] According to your evidence, the produce from Walgett and the up trade coming *via* Narrabri, if there were a railway from Narrabri to Walgett, would travel a distance of 469 miles, because 66 per cent. of it goes from Sydney? That is so.
923. *Mr. Hoskins.*] Still you believe that if the Darling were navigable, even although there were a railway from Narrabri to Walgett, a good deal of wool from that district would be sent round by Bourke? I do.
924. *Chairman.*] But if the people desired to get from Walgett to Sydney, they would scarcely use the river to Bourke, and then pay railway freight for 501 miles to Sydney, in preference to using the railway a distance of 469 miles *via* Newcastle;—what is the river freight from Walgett to Bourke? Twenty shillings a ton.
925. Therefore, the railway would have to carry the goods a greater distance for £1 less, to induce a Walgett man to leave Walgett and go down the river? Yes; that would not be unusual.
926. Is there much doubt that if a line were extended from Narrabri *via* Pilliga to Walgett, the Walgett produce would go *via* Newcastle, and two-thirds of it would pass Newcastle? That is so.
927. There would not be any contention that there would be a probability of the produce of Walgett going down the Barwon to Bourke, and then paying rail carriage along the line to Sydney? Yes; there would be every prospect of it.
928. Paying £1 to get to Bourke, and then paying for a longer distance to Sydney? Yes; because from Bourke down-stream they can always control the Walgett trade, so far as merchandise is concerned, and when they can control it as regards merchandise, they can control it as regards wool. Take a firm like Rich & Co., who have half a dozen steamers, and who are also merchants in a large way. The very fact of their being able to sell one big line would probably influence a couple of thousand bales of wool, and you could not tell what the rate was. They would probably get some line carried from South Australia at 30s., and they are prepared then to accept a contract for a big clip of wool at a rate that we never know of, and it is a through rate. We cannot follow these transactions, and we cannot give quotations to secure the traffic. It does not matter what we quote, these people get the traffic. A Walgett man might pay £1, or something approaching that for river carriage by a longer route, even if he were going to Sydney.
929. That would not last? I do not know so much about that. It exists to-day, and it is very prevalent also down the Murrumbidgee.

- J. Harper.
4 Nov., 1897.
930. Because there you have the border duties and rebates, and a competing centre like Melbourne? But we have the same thing at Bourke; we have to maintain a competing rate there.
931. Are you prepared to express an opinion as to whether, if it be justifiable to extend the railway to Walgett, that place should be regarded as ultimately trading with Newcastle or with Sydney? I think with Sydney. The returns we have of the traffic carried from that district all indicate it.
932. If Walgett is to be connected with the railway system of the Colony, Sydney, in your opinion, will be its trading depôt? Not only is that so in my opinion, but the evidence I have given, obtained from the books of our Department, discloses it to be a certainty.
933. And that evidence is, of course, the basis of your opinion? Yes.
934. *Mr. Fegan.*] But where is the necessity to come down to Sydney from Newcastle? I am simply dealing with facts as they are. I do not express an opinion; I simply bring the information obtained from the books of our Department and offer it to the Committee.
935. But you add that, if a railway were constructed to Walgett *via* Narrabri, the market would still be Sydney and not Newcastle? I cannot see how the conditions are going to alter, because the conditions of carriage are precisely the same, as far as my statistics are concerned, to Newcastle to-day as to Sydney to-day.
936. Though there is a difference of 102 miles between Newcastle and Sydney? Yes; and notwithstanding that fact two-thirds of the traffic comes to Sydney. That is the position. I wish it to be absolutely clear that I express no opinion, but only lay before the Committee the information which our books give. If my personal opinion is asked about the matter I do not mind expressing it. I think that if Walgett is approached by railway at all, it should be approached by Coonamble.
937. *Mr. Hoskins.*] A very much longer distance? I think only about 12 or 15 miles longer.
938. *Chairman.*] The distance from Sydney to Walgett *via* Nevertire and Coonamble is 485 miles as against 469 miles from Sydney to Walgett *via* Narrabri and Pilliga, showing a difference of 16 miles? Yes.
939. *Mr. Roberts.*] How far is it from Warren to Walgett by way of Coonamble? About 130 miles.
940. *Mr. Fegan.*] But, on the other hand, the route *via* Newcastle to Sydney would be the shortest for Pilliga? Yes; but I do not think that anyone would seriously consider that a railway ought to be built as far as Pilliga is concerned, which is on the edge of a brigalow scrub and which can produce nothing.
941. *Chairman.*] What is the character of the country from Narrabri to Pilliga? On the south side of the line it is absolutely worthless country. There may be some timber in it, but I do not think there is very much.
942. Does this poor country extend southwards for a distance of 30 miles? Nearer 60 miles. The inferior country, comprising brigalow scrub, extends from about Eurawilkie on the west, thence in the direction of Coonabarabran, round south-east near Baradine, and thence back in a north-easterly direction towards Narrabri.
943. Describe in general terms the country from Coonamble to Warren and Coonamble to Walgett? The country from Warren to Coonamble, with the exception of three or four monkey-sandhills, is all rich black soil, boree and myall plain, with some red soil in it, and comprising some of the best pastoral country and agricultural country that I know of anywhere.
944. What is the rainfall at Coonamble? Eighteen or 19 inches. I would point out why I think it would be an advantage to Walgett that it should have its railway communication from the west. I am satisfied from an examination of the country that this is a line that would pay from its inception—I mean the line from Warren to Coonamble. The Commissioners have reported on this line, and they say that if extended rates from the main line were charged, with no local rates, the traffic would be of such a character that from the start of the railway it would pay working expenses and a portion of the interest on the capital cost. Therefore, if an extension from Coonamble to Walgett were carried out, it would be an extension from a line which would not be burdened by any local rate, but to which the ordinary extended rates would apply. Added to these considerations is the fact that the distance to be built is comparatively small as compared with that *via* Newcastle. There is an alternative line from Mudgee *via* Coonabarabran, but I am not speaking of that.
945. Could you describe the country from Coonamble to Walgett? For about 30 or 40 miles it is practically of the same character—not quite so good, probably—as that between Warren and Coonamble. Then, when you get towards Walgett, you get on to flooded country—fair pastoral country, but a good deal of it is flooded; but it floods to a far greater extent in the direction of Pilliga than it does in the direction of Coonamble.
946. Describe the country from Walgett to Pilliga? There is about 20 or 30 miles of flooded country—probably more—as you approach Walgett. The country is about of equal character to that midway between Coonamble and Walgett. It is practically the same right into the river, except that it floods out more between Pilliga and Walgett.
947. Is there any agricultural land between Narrabri and Walgett? No—that is to say, agricultural land in the sense of producing anything for railway carriage.
948. What is your opinion of Coonamble as an agricultural district? I do not think that Coonamble would grow much; but between Warren and Coonamble there is some splendid agricultural land.
949. And you believe that the temperature and the rainfall would enable it to be dealt with? I am sure it would.
950. *Mr. Hoskins.*] If the trade increased largely in consequence of the opening of a railway from Warren to Coonamble and Walgett, would not that increase the difficulties of working the western line, owing to the severe grades? If the trade increased from anywhere the difficulties would be increased, but still it would always pay to get over those difficulties by reason of having the traffic. The work that is being done now in reducing the grades on the various railways is doing away with a lot of difficulties which formerly had to be encountered.
951. What is the distance by railway from Sydney to Warren? 353 miles.
952. *Mr. Humphery.*] The distance from Narrabri to Walgett is 114 miles, and from Warren to Walgett 132 miles? Yes. It is 63 miles from Nevertire to Coonamble, and 69 from Coonamble to Walgett; making a total of 132 miles. From Narrabri to Walgett the distance is 115 miles. There is another point in connection with the Coonamble extension. I think you will agree with me that a line that can show such results from the crucial test of the Railway Commissioners as I have mentioned—namely, that it will pay—must have strong claims to be built some day. Assuming that a line is built to Coonamble—as it will be, whether

whether it is extended to Walgett or not—you will then have only 69 miles of construction to reach Walgett. J. Harper
 953. Do you know the character of the country sufficiently well to say whether the cost of construction between Warren and Coonamble and Coonamble and Walgett, would be greater or less than between Narrabri and Walgett? If anything, I think it would be less by Coonamble, because there is less flooded country as you approach Walgett from Coonamble side, than there is coming from the Pilliga side. 4 Nov., 1897.
 954. And between Warren and Coonamble? Between Warren and Coonamble there are no difficulties at all. You cross the Macquarie at Warren, and after that there are one creek and two or three blind watercourses.
 955. From your knowledge of lines which have recently been constructed, can you compare the country between Warren and Coonamble, as to the cost of construction, with any other line that has been built? The estimated cost of 64 miles of railway from Warren to Coonamble, including a bridge over the Macquarie is £177,000, which would be about £2,700 per mile.

FRIDAY, 5 NOVEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
 The Hon. JAMES HOSKINS.
 The Hon. CHARLES JAMES ROBERTS, C.M.G.
 HENRY CLARKE, Esq.
 CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.
 THOMAS HENRY HASSALL, Esq.
 GEORGE BLACK, Esq.
 FRANCIS AUGUSTUS WRIGHT, Esq.
 FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and further examined:—

956. *Chairman.*] You have something to add to your previous evidence? Some information was asked for by the Committee with regard to the extension of the Great Northern Railway from Werris Creek to Narrabri. Unfortunately the papers belong to the Public Works Department, and they cannot be traced, and in the year when the proposal came before Parliament, there was no official record of the debates of the House. I have here, however, an extract from the *Sydney Morning Herald* of the 25th April, 1877, which says— J. Harper
 5 Nov., 1897.

Mr. Hoskins laid upon the Table of the House copies of plans, sections, and books of reference, regarding the proposed extension of the Great Northern Railway from Werris Creek to Gunnedah. He gave notice that he would to-morrow (Wednesday) move that they be approved by the House.

An extract from the *Sydney Morning Herald* of 27th April, 1877, says—

On the motion of Mr. Hoskins that the extension of the Great Northern line of railway from Werris Creek to Gunnedah be approved, the question was discussed. In the course of the discussion, Mr. Hoskins read a report from the Engineer-in-Chief as follows:—This extension leaves the Great Northern Railway at a point 11½ miles north of Quirindi Station, and 155 miles 32 chains from Newcastle, follows the course of Werris Creek for a distance of 3 miles, crosses the creek at a place called The Gap. From this point to the crossing of the Mooki River at Breeza, the railway passes for 9 miles in a straight line across Breeza Plains. From Breeza to Gunnedah, the line has been kept above the level of the floods, and terminates in the town of Gunnedah, a position favourable for continuing the line either to Narrabri or to the northern districts. The steepest incline is one in fifty for 25 chains, falling from the station at the junction with the main line. The works are very easy, being principally side cutting, the embankment being kept about 3 feet above the natural surface of the ground on that portion subject to floods. The amount voted last session for railways was £220,000 for 40 miles in length, but this distance has been increased by 1 mile in consequence of the inhabitants requesting the Government to place the station in the town of Gunnedah. The motion was agreed to.

The plans of the Werris Creek to Gunnedah line were approved by Parliament on 9th May, 1877. The contract was let 6th September, 1877, the line was opened to Breeza on 25th March, 1879, and to Gunnedah, 11th September, 1879. The plans of the Gunnedah to Narrabri line were approved by Parliament 17th June, 1880, and the line opened in sections—the Gunnedah to Boggabri section, 11th July, 1882, and the Boggabri to Narrabri section, 1st October, 1882. I have also the following return:—

WERRIS CREEK TO NARRABRI.

SECTIONAL Expenditure and Earnings for the under-mentioned years.

Particulars.	1883.	1887.	1890.	1894.	1895.	1896.
Capital cost.....	£ 614,184	£ 610,234	£ 610,234	£ 677,574	£ 678,502	£ 678,909
Interest on capital.....	24,567	24,409	24,409	27,080	27,113	27,127
Working expenses.....	39,667	31,462	23,670	27,353	29,897	29,393
Working expenses and interest.....	64,234	55,871	48,079	54,433	57,010	56,520
Earnings.....	54,073	40,925	44,690	69,114	68,509	67,018
Profit on working exclusive of interest.....	14,406	9,463	21,020	41,761	38,612	37,625
Profit or loss on the year's working including interest.....	Loss 10,161	Loss 14,946	Loss 3,389	Profit 14,681	Profit 11,499	Profit 10,498

957. *Mr. Lee.*] If such excellent results have been obtained from the Narrabri extension, why should they not be obtained from an extension to Pilliga? I do not think that there are the opportunities at Pilliga which there were at Narrabri.

958. *Chairman.*] Are there any local reasons against the construction of a line between Coonamble and Dubbo? No; but the country lying between those two places is not as good as the country between Warren and Coonamble. Besides, the selectors on the Marthaguy and the Macquarie would not be benefited by such a line.

959. What is the country like coming through Gulgong into Mudgee? The area of good country on that route is not so great as between Warren and Coonamble.

- J. Harper.
5 Nov., 1897.
960. *Mr. Fegan.*] The distance from Narrabri to Walgett is less than the distance from Warren to Walgett? Yes; but very little less, and there would be a great difference in the amount of traffic picked up.
961. Would there be any difference in grade? The country is pretty level in either case.
962. But you think that the country between Warren and Walgett is better than the country between Narrabri and Walgett? Yes; it is far better country. For 62 miles, charging an extension of the local rates—that is 1d. per ton per mile on wool—it would produce over £10,000 a year. That is a length only 5 miles longer than the line from Narrabri to Pilliga.
963. But the country from Pilliga to Walgett is equal to the country between Coonamble and Walgett? Yes, for the most part; but the country near Coonamble is better than any of the country further north.
964. The rainfall between Pilliga and Walgett is less than between Coonamble and Walgett? I think they get a little more rain at Coonamble.
965. Which would be the better grade—from Walgett through Narrabri to Newcastle; or from Walgett *via* the western line to Sydney;—would not the difference be in favour of the line to Newcastle? Not very much. There are few grades on the western line now until you get to the mountains.
966. But if Newcastle were the terminal point, it would be easier for the traffic to go there than to come to Sydney? Yes; but the conditions are against its doing that.
967. Are these conditions unalterable? I do not say that; but it would take a very long time to alter them. The tendency is, for the wool-brokers to offer more wool for sale in Sydney every season. With two-thirds of the wool already coming to Sydney, that tendency must increase.
968. Do you not think that the northern trade may ultimately centre in Newcastle? I cannot conceive of such a possibility. It is notorious that no business demands centralisation so much as the wool business does. So far as the stock business is concerned, of course, there is a very large tendency for it to come to Sydney, because of the immense consuming population.
969. There was an increase in the quantity of wool shipped from Newcastle last year? There was an increase in the whole Colony.
970. Notwithstanding the great drought? We are feeling the effects of the drought now. The clips of the Australian Pastoral Company's station represented nearly 20 per cent. of the wool sent from Newcastle. We got more of that wool last year than in previous years; but it may at any time go to Brisbane.
971. *Mr. Hoskins.*] Is it not a fact that a great deal of wool produced in the north-western district, as well as in other parts of the Colony, is controlled by banks and other financial houses in Sydney? Yes.
972. And the producers must send it where their mortgagees compel them to send it? Yes.
973. *Mr. Fegan.*] These men have got into the hands of the banks and they must remain there? It was the large financial companies who used to ship the wool Home; but they are showing an increasing disposition now to offer in Sydney.
974. Have you more streams to cross between Coonamble and Walgett than between Narrabri and Walgett? No. They are mostly blind creeks, and the bridge work should not cost more than £1,500 or £2,000 for each. The only one of any consequence is the Marthaguy.
975. How many of them are there? Well, they are principally very small creeks running into the river. They could hardly be shown on the map, but they would have to be provided for in the construction of the line.
976. Would you not have to cross the Castlereagh in going from Coonamble to Walgett? Yes; but not if you stopped at Coonamble.
977. If you get the line to Coonamble, it will be only a short time before it goes on to Walgett? I do not admit that. I do not think that anything entitles Walgett to a railway. In a very short time it will be absolutely necessary to construct the railway to Coonamble, and when the line goes there it will be within a much shorter distance of Walgett than any other line. It would obtain the great bulk of the Walgett traffic except that river borne.
978. How does that traffic now find its way to Sydney? In one year two-thirds of it came through Bourke. Circumstances do not warrant the construction of a line to Walgett; but if at any time it were necessary to construct such a line, the best thing would be to take it *via* Coonamble.
979. The most expensive portion of the line will be from Coonamble to Walgett? No, I do not think so, though I do not know how the engineers propose to get over the flooded country between Pilliga and Walgett.

Richard Dalrymple Hay, Chief Clerk, Forestry Branch, Department of Lands, sworn, and examined:—

- R. D. Hay.
5 Nov., 1897.
980. *Chairman.*] You can give us no information, except what you have obtained from official reports and statements which have come under your notice? No.
981. You are, however, prepared to tell us something about the forest reserves between Narrabri and Pilliga;—what is the area of the first one of which you have to speak? There is a series—numbers 24,587, Baradine; and 24,588, White. Within those reserves are comprised an area of 337 square miles, or 215,000 acres.
982. Those reserves are south from Pilliga, and run east? Yes. The only commercial timbers upon them are ironbark and pine.
983. Are you getting any revenue from them? We are just starting to get revenue from them. People are taking timber from them now.
984. What does the ranger say with regard to the quality and quantity of the timber? It is estimated that there is one matured pine, and two matured ironbark trees to the acre, and that there are six commercial trees to the acre coming on.
985. What royalty is charged? Two shillings a tree upon pine, and 4s. a tree upon ironbark.
986. Can you sell it at that rate? That is what we charge; but the demand is limited.
987. What would be the gross value? Eight shillings per acre for the matured timber, or about £86,000 altogether. There was a fair demand for timber some five or six years ago for road and bridge construction; but it fell off for a time, and this year it has increased again.
988. Was the timber for the railway from Narrabri to Moree obtained from this forest? No.
989. What is the annual return from the reserve? For the last five years there has been practically no return, though things are looking more hopeful.

990. Have you any statement as to the value of the land? No; but one of the reports of the forest ranger says that the land is not suitable for settlement. R. D. Hay.
5 Nov., 1897.
991. Do you know if the construction of a railway to Pilliga would increase its value? I am sure that it would not. If there were any extension beyond Pilliga a lot of the timber would be taken. At the present time the roads of access to this particular forest are from Narrabri.
992. *Mr. Hoskins.*] There is a forest near Narrabri? South from Narrabri. There is none between.
993. *Chairman.*] What is the next reserve? The nearest reserve is down south, near Baradine. There is no forest reserve nearer than that.

WEDNESDAY, 10 NOVEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHREY.
The Hon. JAMES HOSKINS.
The Hon. CHARLES JAMES ROBERTS, C.M.G.
The Hon. WILLIAM JOSEPH TRICKETT.
The Hon. DANIEL O'CONNOR.
HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
JOHN LIONEL FEGAN, Esq.
THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.
FRANCIS AUGUSTUS WRIGHT, Esq.
FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

William Henry O'Malley Wood, District Surveyor, Moree, sworn, and examined:—

994. *Chairman.*] What are the boundaries of your district? The boundaries of my district, for the purposes of this inquiry, may be taken to be from between Moree and Woolabra; thence going westerly and southerly, striking the Namoi between Pilliga and Walgett; thence across the Namoi, and, crossing the Castlereagh to the Macquarie, thence northerly to the Queensland border which is my northern boundary. W. H. O'M.
Wood.
10 Nov., 1897.
995. What is the character of the country north of the Namoi River, between Walgett and Narrabri? It is for the most part plain country.
996. Do you regard it as pastoral country? Yes; rich pastoral country.
997. Are there any agricultural possibilities? Yes; but there has been so little agriculture there up to the present time that I do not regard it as agricultural country now, nor probably will it be so for many years to come. The soil is good enough, and the rainfall varies from about 20 inches at Walgett to about 25 or 26 inches at Narrabri. That rainfall is good enough for agriculture; but there would be some seasons when the crops would miss, and up to the present time no considerable extent of agriculture has been carried on.
998. It is possible to grow crops? I have known crops to have been grown there, and grown well. I grew a crop myself this year at Moree, consisting of about 2½ tons of hay to the acre. The rainfall at Moree is about 25 inches.
999. Do you know the country between Narrabri and Woolabra, on the east, and Collarendabri and Walgett on the west? Yes.
1000. What are the possibilities of agricultural settlement? I think it is possible to grow cereals there; but I would place agriculture in that district a considerable time ahead.
1001. Are there other places at present unused which, in your opinion, are more suitable for the growth of cereals? I think the country lying to the east, notably the Inverell country, is so admirably adapted for agriculture that it is improbable the less favoured district to the west will be used for agriculture for some time to come.
1002. Because of the competition offered by the Inverell, Warialda, and Bingera lands? Yes.
1003. What kind of country is that from Narrabri to Pilliga? You pass through some very good country; but as this is in the Tamworth land board district, Mr. Poate would be better qualified to give evidence concerning it.
1004. What is the country like from Pilliga to Walgett? From Pilliga to Come-by-Chance the country is not very good. There is a good deal of brigalow scrub.
1005. Extending back far from the Namoi? Yes; it extends a long way back from the Namoi. Most of that scrub is in the Tamworth district. You come on to good country at Goangra, near the junction of the Baradine Creek and the Namoi. From that westerly the soil in the Moree district is good. Most of the country is open. There is some scrub country, and parts of it are subject to inundation. There is a great deal of country between the Barwon and the lower parts of the Namoi, the Castlereagh and the Macquarie, that is subject to inundation in wet seasons.
1006. Speaking of the country generally, do you regard it as a pastoral country? Yes.
1007. Do the remarks you have made apply to the country further up the Barwon—between the Barwon and further up on the Narrabri and Moree line? Yes. I think the rainfall generally is from 20 to 21 inches over the whole of that country.
1008. But do other parts of the country in the vicinity—that is, east from the Moree line—offer better opportunities for agricultural settlement? Yes.
1009. Therefore, you do not expect any development of agriculture at present in the country just referred to? No.
1010. Do you see the line marked on the map from Woolabra to Collarendabri; what sort of country does that pass over;—is it flooded? I think the exact site of the line is not much flooded until you get near to Collarendabri. I have not followed the line, and do not know exactly where it goes; but I imagine that in very wet seasons, in times when the Barwon is very high, parts of that country would be flooded.
1011. Woolabra would not be flooded? No, never. The flooded Barwon country extends about 8 miles from Collarendabri, in the direction of the Telaba, on the main road to Narrabri, before you pick up the toe of the dividing elevation.
1012. What depth of water would there be outside of Collarendabri when there was a flood? Speaking from memory, I think that in Collarendabri itself, at the time of the 1890 flood, there was about 3 feet of water all through the town. 1013.

- W. H. O'M. Wood.
10 Nov., 1897.
1013. Did it run fast? I was not there; I think it would run pretty fast. I remember going down to Collarendabri just after the 1890 flood, and seeing sheep hanging higher than the middle wire of a fence. This was about 8 miles out from the town. But there would be places between that and Collarendabri where the water would be deeper. I understand that on the proposed railway route they have picked out the highest parts of the country in the neighbourhood of the Barwon.
1014. Going from Walgett to Pilliga, do you know how wide the flooded country is there? Speaking from memory, I think it is 14 miles. They have to go down along the Coonamble road in a southerly direction to escape the flooded land, and then they run easterly to Come-by-Chance.
1015. Going down 14 miles from Walgett you strike higher land, and then a line going easterly from that point towards Come-by-Chance passes higher country? Yes; but I think there are parts of that country that would be flooded in such a flood as that of 1890.
1016. Is the country 14 miles out from Walgett flooded more or less? It is flooded completely for 5 or 6 miles out, and in places beyond that.
1017. Not so much? No. In the 1890 flood I think they went 5 or 6 miles out from Walgett in a boat, or even further. The water would then be over 3 feet deeper in the town of Walgett.
1018. And, extending perhaps 5 miles out, it then commenced to shallow? Yes.
1019. Then the country would be variable for how many miles? There are patches of high red ground, and there is good high ground out where the bore is. That is 14 miles out, and is never flooded. But there would be swamps and warrambools where the Namoi water breaks over and flows towards the Castlereagh. I could not tell you exactly of any continuous stretch of high country. All along there are patches that I know are high, but I do not know whether they are continuous.
1020. It means formation, more or less? Yes.
1021. Do you know Walgett? Yes; very well. I do not regard the town of Walgett itself of vital importance in considering the question of railway extension, but the district as a whole is a good one, and the country is sound and produces good wool.
1022. What effect would railway construction have on the district, it being a pastoral district? A railway would carry the wool and fat stock to market.
1023. Is there any trouble in getting the wool away now? In dry seasons I think there is some difficulty. In wet seasons they can get the wool away by boat.
1024. In wet seasons does the Walgett district suffer any disability? Not as regards getting rid of the wool, but it does in getting rid of fat stock.
1025. In a wet season the wool can be sent away? Yes.
1026. And in a medium season? Even in a medium season the river is generally full enough to get the wool away.
1027. In a dry season they have 100 miles of land carriage now? Yes.
1028. Do you consider that 100 miles in the carriage of wool is a serious matter? No; if the stock reserves were properly cared for I do not think it would be a serious disadvantage.
1029. *Mr. Hoskins.*] Taking a given period of five years, can you say of your own knowledge how frequently the river would be available for traffic? I should think it would be available for traffic for fully three years out of the five. I would not be quite sure about this, and the Committee could get more definite information from some other source.
1030. *Chairman.*] What would be the effect of a railway on Walgett as regards the extension of the present pastoral enterprise, the creation of new enterprises, and the closer settlement of the land? It would be an advantage to small settlers, inasmuch as stock could be got away to market much more readily than is possible at present owing to the heavy cost of droving on small lots. A similar advantage in regard to the carriage of stock would be derived by the squatters. I do not think any new enterprise, or, at any rate, many new enterprises, would be started.
1031. Would there be any great increase in the population? No, I do not think there would be; but a railway would help the settlement leasing, which is confined mostly to small pastoral settlers. It would help those small settlers and save them a great deal of expense in the conveyance of their produce. To all those within the distance of 30 or 40 miles of the line it would be an advantage in this respect.
1032. But you can see no special element which the railway would introduce or create? No, I do not think it would induce much closer settlement.
1033. What is the rental of the settlement leases, say, in the Walgett district? From 3d. to 4d. an acre. Between Walgett and the Castlereagh the average is about 3d.
1034. Taking a similar class of country to that within 15 or 20 miles—or such distance as you would regard as being served reasonably by railway communication; are you leasing any land similarly situated in other parts of your district? Yes, the rentals under settlement leases would be about 4½d.
1035. It is a reasonable inference then that if a railway were extended to Walgett you would get 4½d. for your leases there? I rather doubt it.
1036. Then it would not be materially affected by railway communication? It would be benefited, when you look at the rents and consider how they are fixed. They are fixed on capital values, and under this additional system there is not room for great variation in rentals. I do not think you would get more than a 1d. an acre.
1037. So that the Crown Estate would not be materially increased in rental values by the construction of a railway? An increase of 1d. an acre would mean an increase of 6s. 8d. in the capital value.
1038. *Mr. Lee.*] Of the two sides of the Namoi which, in your opinion, is the most suitable for railway construction—from a flood point of view? The south.
1039. That is to say, the north is more liable to inundation? The north is the better country, but it is more liable to inundation.
1040. You will observe from the map that the survey line does not go a very great distance from the Namoi at any point? Yes.
1041. As a matter of fact, has not nearly all the land on the northern side of the river passed away either by conditional purchase or by settlement lease? I believe the bulk of it has, but it would be better to obtain evidence on this point from the District Surveyor for Tamworth.
1042. Will you look at the county map furnished by the Lands Department. The black line represents the railway from Narrabri to Pilliga and the survey from there to Walgett, and an area of about 20 miles

is embraced on either side. Looking at the area coloured brown on the north side, what land do you see there for future settlement. The parts marked brown represent the Crown lands; no doubt a large proportion of these are unsuitable for settlement? I do not think so; I think nearly all that land is good for settlement.

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1043. For pastoral purposes? Yes; north of the river.

1044. What is the area of the settlement leases in that district? Most of them are from 2,560 to 3,000 acres.

1045. I suppose the brown areas on the map really represent those leaseholds which have not fallen in? I think they do.

1046. And when do they fall in? They will all fall in within the next three years.

1047. When the whole of that brown area shown within 20 miles of the railway is brought under pastoral settlement, do you think the produce of that part of the country generally will be doubled or trebled? I do not think it will be even doubled. That country is carrying a great deal of stock now; it is very heavily stocked.

1048. From information before us, the railway, if constructed, would show a loss at the start;—in your opinion, is there a probability of that loss being arrested in the future? I do not think the stock-carrying capacity of the country would be increased by smaller settlement to the extent of more than 50 per cent.

1049. And that would be a very large allowance? Yes, I think that would be a very liberal allowance. It is really good country—very good fattening country, and is well stocked now.

1050. The pastoralists are stocked up to their utmost capacity? I think they are, according to the present size of their paddocks. They could carry more by small paddocking, further water improvements, and ringbarking.

1051. Has not experience proved that if the owners wish to maintain the carrying capacity of their country, they will have to reduce the stock on it? Either that, or increase the improvements. By providing smaller paddocks and more water improvements I think the carrying capacity of this country could be considerably increased. That is what would occur under smaller or closer settlement.

1052. But you think a margin of 50 per cent. is the most possible? I think that would cover it.

1053. You notice the green areas shown on the map? Yes.

1054. Do they denote travelling stock reserves chiefly? A great many of them do—the lengthy ones do.

1055. In any future dealing in that part of the country under settlement lease or other form of alienation these travelling stock routes will have to be preserved? Some of those parallel to the railway line might perhaps be altered; but I think we should have to increase the accommodation as regards the cross-lines.

1056. It may be necessary to alter some, but those drift-ways to which you refer will have to be kept open? Yes; I do not think they could be reduced very much.

1057. Therefore, we must not expect much settlement on the land at present reserved for travelling stock routes? No.

1058. You said just now that agriculture had not developed itself in the district, although the soil was good enough and the rainfall sufficient. From the fact that agriculture had not established itself, you were of opinion that it was very problematical whether it would be carried on in the future? Yes.

1059. Is there any assignable reason for that state of things;—if the soil is good and the rainfall sufficient, what is the reason there is no agriculture? The rainfall is not such as to ensure crops in all seasons.

1060. Does that mean that the rainfall does not come in sufficient quantities at the proper seasons? In some seasons you have no rainfall to speak of for six months, and in other seasons you have a rainfall that is suitable for production. That, of course, applies all over the Colony; but in this district the conditions as regards rainfall are a little more precarious than in many other places.

1061. To make agriculture tolerably certain, the rainfall must be fairly spread over the year? The rain must fall, at any rate, during the winter and spring months.

1062. There are no reasons known to you, I suppose, other than those you have given, why agricultural farms should not be established in the district? There are no mills in the district.

1063. Take, for instance, the country around Narrabri;—I suppose that is as good land as you could get in the district anywhere we are speaking of? There is some land at Narrabri quite as good as anything you could desire.

1064. If it were possible, is it not likely that agriculture would take place there, where there is a larger population and easier access to a market, than in the outer districts? It would certainly be more likely.

1065. Has it taken place there? They have just started a flour-mill there, and they are growing crops. They grow hay crops regularly at Narrabri.

1066. What is the object of starting a mill if there is no wheat there? There is some wheat there, but not very much. I do not think it pays them to send it down the line.

1067. I suppose you know personally, or have heard, of the great developments in wheat growing that have recently taken place in the south and south-western portions of the Colony? Yes; my brothers are now engaged in growing wheat near Grenfell.

1068. You remember some years ago it was held that wheat could not be profitably grown in the south-western districts? On my brothers' station, when I left, it was considered that you could not grow wheat there.

1069. Do you think we are making the same mistake as regards the north that the earlier settlers made as regards the south and south-western districts? I feel certain we are, to a great extent.

1070. Do you think it possible that the country between Narrabri and Walgett will ever become an agricultural district? The only thing against it that I know of is the mechanical difficulty in working the black soil. The soil is strong enough but it is difficult to work. It is not so easy as the red soil of the western and south-western districts. The rainfall is also a little less.

1071. In wet weather the soil is too heavy to work, and in dry weather it cracks? Yes; but at Inverell they are working the black soil.

1072. Is there any comparison with the black soil of Inverell and the black soil round about Walgett? It is different I admit.

1073. You are aware that in the Walgett district, and between Walgett and Narrabri, in a dry season the earth cracks in every direction? Yes.

1074. You very rarely find the same thing in red country. No.

1075. In the part of the country of which we are speaking the extremes of the season are very great, are they not? They are; but on matters regarding the rainfall and climate the Government Astronomer would be a better authority than I am.

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1076. For years past the rainfall has been about the same, the soil has been the same, and the land has been open for settlement and cultivation, and yet it has not been taken up for that purpose;—that being the case, can you reasonably assume that in the future, if the railway were made, this land would be cultivated? It is very hard to say. I only go by the experience in the south and south-western districts. A few years ago agriculture was reckoned impossible there, and now it is carried on to a very large extent.
1077. *Mr. Hoskins.*] Is it a fact that the people who occupy land in the northern districts as conditional purchasers, conditional leaseholders, and settlement leaseholders, are not, as a rule, so energetic, pushing, and intelligent a class of people as the farmers in the southern districts of the Colony? I do not think there is any doubt about their lack of energy.
1078. The fact of their not engaging in agriculture as well as pastoral pursuits is an evidence that they are of the old-fashioned type and not equal in intelligence to the men of the south? The most progressive and the best men in the north are mostly men who have come from the south.
1079. *Mr. Black.*] How do you account for this alleged difference between the two classes of men—is it due to the climate? No; I think the superabundance of land in the north induces people to look more to the pastoral industry, from which they get their revenue with less labour.
1080. It is not the men, but the land conditions? I think it is a great deal owing to the land conditions.
1081. Where there is a smaller quantity of land the men are forced to make better use of it? Yes. They try to secure as much as possible. As long as they are building up good pastoral properties they will not bother about agriculture. Most of the men employ labour where, I think, they ought to do the work themselves. This opinion is merely the result of observation, and I do not know that it is worth very much.
1082. *Mr. Hassall.*] You know the Walgett district fairly well? Yes, fairly well.
1083. Your duties take you down there pretty often? Yes.
1084. What is your opinion of the Walgett district as a place for closer settlement;—does it compare favourably with the Moree district? No; it is not so good.
1085. Can you say from your own knowledge whether settlement is increasing in the Walgett district? Yes, it is. Most of the leases are taken up as fast as we throw them open.
1086. Do you think that the extension of a railway to Walgett would lead to any considerable increase in the applications for land in that district? Certainly, I think there would be a greater number of applications. Railway communication would enable settlers from other districts to go more easily to that country to inspect it, and it would result in a greater number of applications being put in for the land as it was thrown open.
1087. As a matter of fact, the district has been isolated to a certain extent for a number of years? Yes.
1088. The difficulty of reaching it, owing to bad roads, has been to some extent a bar to settlement? Yes, to some extent.
1089. Having regard to the fact that the extension of the railway to Moree has resulted in a largely increased demand for land in that district, do you think that the extension of a line of railway to Walgett from any point would be followed by a similar result to that which has occurred in the Moree district? I think so, but not to quite so great an extent.
1090. You do not think the country is quite so good down there? No.
1091. Still, as regards a very large area around Walgett, it is looked upon as first-class grazing country? It is good fattening country, and most of it is very sound country.
1092. And a good quality of wool is grown there? Yes; a very clean, good quality of wool is grown there.
1093. And the chances are that with increased facilities of communication there might be largely increased settlement? Yes; I think a greater number of strangers would come there for land. Most of the land is taken now, but it is chiefly by local people. I think strangers would come to a greater extent than is the case now. By taking the line further west you would add considerably to the convenience of wool-producers, both on large and small areas, to the north-west and up near Angledool, and as far as southern Queensland.
1094. Such a railway, you think, would command the country extending north-west from Walgett and up as far as the Queensland border? Yes.
1095. Which is all good wool-growing country? Yes; that would be in seasons when the river was not navigable. When the river was navigable, I think nearly all that wool would go by river while the present railway tariff was in existence.
1096. Railway communication with Walgett, therefore, would, in your opinion, not only develop and command the trade of that district, but would also be a great convenience to a large extent of country lying on the northern side of the Barwon? Yes; I think it would be a great advantage as regards wool and stock—especially fat stock in dry seasons.
1097. Would a line from Narrabri, or from a point between Narrabri and Moree out towards Collarendabri, serve that district equally as well as an extension to Walgett;—would a line from Woolabra in the direction of Collarendabri be a very great advantage to Walgett? It would; but a line to Collarendabri will serve a more limited extent of country.

David Morgan Jones, sworn, and examined:—

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1098. *Chairman.*] I believe you desire to give evidence with regard to the proposed line of railway from Narrabri to Pilliga? Yes.
1099. You know that district and also the Walgett district? Yes.
1100. *Mr. Black.*] Are you a resident of the district? At present I live at Rylstone, but I have been associated with the district in question for the past forty years, and lived there for thirty years consecutively.
1101. Are you in favour of the construction of a railway from Narrabri to Pilliga? I am.
1102. For what reason? Because I think it is a line which if constructed would lead to splendid results.
1103. In what way;—would it induce closer settlement? Perhaps that could hardly be done now, as I think every acre of land that is available has been taken up.
1104. Where did you live during the thirty years that you were in the district? All over the district. I was the mail contractor for that period, and my lines ran all over the district.
1105. Is any of the land in the locality suitable for agricultural purposes? I think it is all suitable.
1106. Is the climate suitable? I think so. 1107.

1107. Do you think the rainfall is sufficient? It is as good as it is anywhere else, except on the coast. D. M. Jones.
1108. Does the rain fall at the right time for agriculture? It falls at all times, and it may fall at the right time—that is to say, when you want it. There is no periodic fall. Often, just as a man thinks he is ruined he makes his fortune. 10 Nov., 1897.
1109. Do you think the route proposed is the proper course for the railway to take? I think so.
1110. On the southern side of the river? Yes.
1111. Is the land better on the southern side than on the northern side of the river? I think it is just as good. The character of the land varies. On one side of the river, at a particular point, a run may be worth a heap of money, and on the other side it may be worth nothing, and 10 miles lower down the river the position may be reversed.
1112. Then you cannot speak definitely? I can speak as definitely as the character of the country will permit.
1113. But can you say definitely on which side of the river the best land is situated? I think the best land for grazing purposes, and for all round purposes, is on the south side.
1114. Is the land equally good all the way through from Narrabri to Pilliga—are there any bad patches? It is all about the same, unless you call the scrub land inferior; but very often that is the best land when it is cleared. Squatters value scrub sometimes. It affords shelter for the stock in the winter, and shade in summer, and scrub does not at all times mean a bad run.
1115. How about the land beyond Pilliga, towards Walgett? It gets better if anything. It is more open; it is myall country.
1116. If the railway were constructed, do you think there would be sufficient traffic to warrant the expenditure? Yes.
1117. Of what would the railway traffic chiefly consist? It would consist of supplies for the district, and produce from the district, as well as the passenger traffic and the mails.
1118. What kind of produce? That would depend upon the use to which they put the land, when they saw they had the means of getting the stuff away.
1119. But now? Well, at present the chief product is stock.
1120. Then the railway traffic would consist of stock and wool? Yes; and passengers and mails.
1121. How many passengers travel there in a week? I am not in a position to say exactly, but the coaches cannot carry them. You have to book ahead to get down in the coach.
1122. What would be the cost of the mail service between Pilliga and Narrabri—say, a daily service both ways? From £500 to £600 a year.
1123. Is the river ever in flood between Narrabri and Pilliga? Not very much.
1124. Not enough to interfere with the construction of the railway? No.
1125. Nor enough to require heavy embankments? No.
1126. Or very extensive culverts? No; there are well-defined channels there which carry off any flood-water.
1127. They are not shown on the plan? I can enumerate them if you desire. One is a very wide and deep creek, which you pass not long after leaving Narrabri; it is called the Brigalow Creek. Then you go a considerable distance to a place called Guthrie, and there you have another large creek known as Sandy Creek; then, 12 miles further, there is a creek known as the Taluba; and 10 miles from there there is another creek called Double Creek. These are creeks which have their rise in the scrub country, which, as it extends south, becomes higher, and the water flows down towards the Namoi. The Double Creek would be about 2 miles from Pilliga. Those are the four chief creeks.
1128. Do they run far back from the river? Perhaps from 20 to 30 miles.
1129. They would require to be bridged, of course? Yes; but the work would not be heavy.
1130. *Mr. Hoskins.*] How many coaches are running daily between Narrabri and Pilliga, and through to Walgett? There is one mail contract from Narrabri to Walgett.
1131. You said the coaches were all loaded;—how many coaches are running there? I suppose there are about three—perhaps four.
1132. Four coaches running every day? Not starting from the one terminus; they have to start from each end of the line.
1133. Are there four coaches—two each way—running between Narrabri and Walgett, *via* Pilliga? I should think there must be. They leave Walgett twice or three times a week.
1134. Then they do not run every day? Not from the one office; but they are travelling on the road every day.
1135. Are there coaches despatched daily, and if so, how many from Narrabri, *via* Pilliga, to Walgett, and from Walgett to Narrabri? I think there is only one that leaves each day. I do not know that there is one mail each day. I think the tender has been let, but I do not think the service will commence until the 1st January. At present there are three a week.
1136. The mails are sent three times a week each way? That is so.
1137. How long have you lived in the Walgett district? Since 1858.
1138. Do you live there now, or do you live in Sydney? I live in Rylstone, near Mudgee; but I have never severed my connection with the Walgett district. I have property in Walgett now.
1139. Taking a period of five years, is it not a fact that during the greater portion of that time most of the produce from the Walgett district would be sent down by steamer to Bourke? I am prepared to say positively that for five years and for ten years consecutively it has been scarcely possible to send a load away by the steamer. These steamers are a complete myth. You can never depend upon them. You never know when they are coming, and when they are going, and nobody pretends to believe in them.
1140. In spite of the uncertainty of the steamers, is it not a fact that the greater portion of the produce from the Walgett district, except on a few occasions when there is a drought, is sent by steamer to Bourke? No; it is absolutely not a fact.
1141. How many teams are on the road usually between Narrabri and Walgett, by way of Pilliga? That is the only means they have in that district of getting the produce away. How else could the thousands of tons be sent from there?
1142. Then, as a matter of fact, the statement that has been made to the Committee by responsible persons, that a great deal of the wool from the Walgett district is sent by steamer, is nonsense, and is not true? Perhaps I may be allowed to qualify my evidence in this way: such large stations as Boorooma, which is

D. M. Jones. 45 miles below Walgett; Milray, which is 40 miles below Walgett; Eurah, which is 25 miles below Walgett; and Gingie, which is 5 miles below Walgett—all these stations have their sheds absolutely on the bank of the river; they shear on the bank of the river. If, by a fluke, the river goes down, the steamers, which are all on the watch, dart up, and the wool from these stations is bundled on board, and got away as quickly as possible, and then, occasionally, the steamers are stuck fast on the rocks, and have to stop there, and be unloaded, and the wool has to be taken across to Byrock.

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1143. If that state of things exists, the wool would accumulate in large quantities on the banks of the river? The wool would be in the sheds, which are on the banks of the river.

1144. And would not be sent away by team at all? Under the circumstances I have stated, if the steamers came up, the wool would be bundled into their holds as fast as possible, and the steamers would be rushed off; but if not, the squatters would hold on to the wool in the hopes of a rise in the river. As a rule, these large clips are carried by contract made with one of the forwarding firms, who make the best terms they can by allowing the squatters a certain rebate on the original sum if their wool is delayed in the sheds; and they chance it. If there is a possibility of the river going down, they pay the fine on the wool for keeping it in the sheds rather than undertake the expense of teams and land carriage; and very often they are beaten. On one occasion the wool was kept in the Euroka shed for twelve months, because a certain forwarding agency had failed to get it out. There was no river, and there were no teams.

1145. I gather from what you say that these squatters who have their sheds on the banks of the river, instead of sending the wool away, keep it until the river is navigable, because they find that river carriage is much cheaper than carriage by team? Well, they have signed themselves away, and they are in the hands of the forwarding agents.

1146. Are there not some large general stores in Walgett? Yes, seven.

1147. Do the people who keep these stores get their goods up to Walgett by team or by river? By either means. If the road is so boggy that teams cannot get down, they will avail themselves of another opportunity if they can.

1148. Of the river? Yes.

1149. Is it not a fact that both merchandise and wool can be transmitted cheaper by river than by teams? I do not know so much about that. I cannot understand how stuff can be carried 800 miles cheaper than it can be carried 400 miles; but I can say this, that in a very dry time—and such times are not unusual in that district—the price of forage will rise, but the cost of carriage will not rise proportionately. Those who can manage to do without their supplies do so. The carriers not being able to get loading—because people cannot pay the extravagant rates of carriage—do not care about feeding their draught stock for nothing; so they manage to keep them alive in various ways other than paying an excessive price for forage. Then, when the rain falls and the ground is sticky and boggy, the poor impoverished horses cannot get their loads along. If the weather still continues propitious, as far as the river is concerned, people who have stuff lying at Narrabri send it back to Sydney, to be forwarded on to Bourke, and it comes round that way, and the people are put to the expense of these hundreds and hundreds of miles of carriage.

1150. Did you never see any one grow forage for the carriage of stock at Walgett or between Walgett and Narrabri? Yes; between Pilliga and Narrabri.

1151. Therefore, the difficulty in getting loading down in time of drought, owing to the scarcity of forage, no longer applies if people now grow forage between Narrabri and Pilliga? Yes; but let me explain. In those times to which you refer, in and around Narrabri the price of forage rises. Unless the people who have grown that forage on their farms can get something like a *pro rata* return, they will not undertake a long haulage of 120 or 130 miles to Walgett. They will not do this unless the carriage is proportionate to the profit they could make on the sale of the stuff in Narrabri, without knocking up their horses and undergoing the journey themselves. They would sooner sell at Narrabri than take the low rate of carriage to Walgett, with all the expense and fatigue and trouble attaching to the journey.

1152. Did you see any hay or forage grown between Pilliga and Walgett? Yes; I saw plenty of it a little off from the river.

1153. How long is it since you were in the district? I still belong to it, and though living at Rylstone sometimes travel to Walgett.

1154. During the last five years have you noticed any increase in the number of persons growing forage between Pilliga and Walgett? No.

1155. Therefore, everything is at a standstill with respect to agriculture? The reason is because wool pays better.

1156. Would not that apply even if they had a railway? They would grow enough for themselves, I suppose. There is a mill at Narrabri to grind it.

1157. If all the wool and all the fat stock from the Walgett district were sent by rail, and none by river, do you think it would pay for the cost of the railway? Yes; twice over. The district is one of the most magnificent in the whole of Australia. The wool from my sheep was sold yesterday, and brought 10d. a lb.

1158. The Railway Commissioners and the principal officers of the Railway Department have shown that there would be a loss on the line of £4,500 a year? Well, they do not know anything about it. My opinion to the contrary is based on forty years' residence in the district, and every one who knows the country will support me in that opinion. From my knowledge and experience, I have the greatest confidence in the resources of the district, which has suffered so long by being isolated from the rest of the Colony.

1159. *Mr. Clarke.*] The country between Narrabri and Pilliga is purely a grazing country at the present time, is it not? I am afraid it may be said to be almost purely grazing country at present.

1160. Is it adapted for agriculture? Yes; I think so, judging from what I have been able to learn from farmers.

1161. Why is it that this country is entirely devoted to the growth of wool? We do not seem to have had a farming element upon it; but just now there are a few Wagga selectors going over there, and those who have done so, and have put the plough into the ground, have had splendid results. They have been selling their chaff in Walgett at £7 10s., £8, £9, and as high as £10 a ton, and they seem to be fairly well satisfied. I am now referring to Messrs. Bell Brothers, who reside 18 miles from Walgett.

1162. Is it possible to grow wheat, oats, or any other cereals in that locality in all seasons, or can it only be done in one year out of three or four? I believe that if practical men, who understand the sort of season

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season necessary to grow these products, will adjust the time of planting to the climate, the result will be as good as in any other district.

1163. Is the rainfall regular or irregular? I am afraid it is not remarkably regular.

1164. I suppose it is more by reason of the irregularity of the rainfall than from its extent that there is a difficulty in growing agricultural produce? Yes; but I have seen splendid oranges grown 5 miles from Walgett, and also most beautiful grapes grown on the banks of the Castlereagh, and the vineyard is still there.

1165. The principal traffic from the district would be wool, and we have it in evidence that if the railway were constructed from Narrabri to Pilliga, there would be an annual loss of £4,500, and that the revenue, consisting chiefly of wool, would not be much more than half that amount? I heard similar statistics and opinions expressed in reference to the extension of the line to Narrabri, and afterwards to Moree; but none of those anticipations have been fulfilled.

1166. Do you think it would be fair, in the interests of the country generally, to construct a railway line which would leave such a very heavy loss? I do not think it would be fair on the strength of statistics, based to a large extent upon imaginary data, to keep such a district as I have described cut off from all communication with the rest of the Colony simply because there may possibly be a loss on the line. On the Mudgee line, which runs through one of the richest agricultural districts in the Colony, there is a loss. I am convinced that splendid results must follow if the district in question is connected with the railway system of the Colony.

1167. Independently of wool and live stock, from what source could revenue be made up? The thing would create its resources. Across the river, about 15 miles from Walgett, there is some magnificent country either for carrying stock or human beings. I refer to the locality where water has been recently struck by an artesian bore, which is yielding thousands and thousands of gallons per day. This land possesses great capabilities; but unless we give facilities for putting people upon it, we shall never get any return. At present men cannot get to this country. They have either to buy a turnout to go down and look at the land and see if it will suit them, or they have to get into a coach and pay very heavy travelling expenses. There is no opportunity for the country to be visited, or for any knowledge to be obtained concerning it. There is no means of getting to it. It is like a man building a splendid flat with every accommodation, and not supplying a lift or a staircase to get to it. That is the position the Walgett country is in.

1168. If a railway were made it would give greater facilities for the settlement of the country? Yes; and connect it with the seaboard, either at Newcastle or anywhere else you like.

1169. You have already said that not much of the wool goes from Walgett to Bourke by the river? Very little indeed. It is a very uncertain means of conveyance. The wool may be turned upside down, or stuck on some shoals or rocks.

1170. *Mr. O'Connor.*] The transit on the river is both uncertain and unreliable? Yes.

1171. I understand from what you say that you are in a way a unique witness, inasmuch as you have known the country from your earliest boyhood? Yes; since I was 18 years of age.

1172. From what you know yourself practically, and taking also a statesmanlike view of the question, you consider that a railway should be constructed, not because it will pay immediately, but in order to develop the country, so that at a future time the line will return a splendid income? Yes; but I almost think it would yield a return from the start. Why should we have armies of agents hunting and shadowing us for our wool when we might have a splendid national means of conveying it to market? I may give an illustration of the difficulty we have at present to contend with. On one occasion I had 20 tons of wool being conveyed by three carriers. After they started on their journey some extra rain came and filled the Castlereagh. At one point on the journey the coachman who drove the mail was allowed the privilege of making a detour through a squatter's property, along the bank of the flooded river. The three bullock drivers who were carrying my wool followed along the same track; but they were proceeded against and fined 30s. apiece for going off the road. Driving up shortly afterwards, I saw 10 tons of the wool lying at the public-house, where it had been necessary to leave it. My case, no doubt, is the same as that of many others. I have already referred to the experience of Mr. Wolseley, of the Euroka station, the whole of whose clip remained in his shed for twelve months. Had the line being carried to Walgett, as originally intended, instead of stopping at Narrabri until the ballot-box got too strong to let it go anywhere else, Walgett would now have been a great city—a little Chicago. The existence of diverse interests has, up to the present time, interfered with the prospects of the line. I consider that the present proposal is the most economical and the most effectual one by which to connect Walgett with the railway system of the Colony. Other extensions will follow as they are required. These things all work out properly if left to themselves. Walgett should be connected with the Northern line.

1173. *Mr. Wright.*] Do you not think the line should follow the proposed route through Pilliga and on to Walgett? I have carefully studied the matter, and I think that is the best route. The route, as proposed, involves no difficulties whatever. You could jump over all the difficult places. As regards the character of the country, there is no doubt there is a bit of scrub; but graziers like scrub—it warms the stock in the winter, and shelters them in the summer, and in time of drought it can be cut down for feed. Even pine scrub is useful for timber.

1174. Do you think Walgett would be better served from the north than from any other direction? I think Walgett would be better served by the line as proposed. It is all cut and dried as regards surveys and plans, and has been well discussed. It would be a pity now to break new ground and go over the same thing again, probably with no result.

1175. Do you know the country between Walgett and Coonamble? Yes.

1176. It has been suggested that the best way to reach Walgett would be from Mudgee *via* Coonamble? I have just driven over that road in a buggy, and there is no doubt that the country is really good country. It is true that a railway by that route would be shorter, and would open up a lot of grand country; but the people do not want a line that way. In Mudgee they are at the present time split up over the question, and they would not attend a meeting of the league there. As I drove down that country recently, I found that the people did not want a line that way.

1177. And would the Walgett people sooner preserve their connection with Newcastle than advocate any other route? I am afraid that at present the Walgett people would not say "No" to anything.

1178. *Mr. Fegan.*] How many miles on each side of the line would a railway open up from Narrabri to Pilliga, as proposed? There is some scrub country on the south or left hand, but it could not be accurately gauged for settlement.

1179.

- D. M. Jones. 1179. But as far as Wee Waa it is very good country, is it not? Yes.
- 10 Nov., 1897. 1180. From Wee Waa to Pilliga is it all scrub? On the right side of the line to Walgett the country consists of beautiful open black-soil flats, but on the left side there is scrub.
1181. Is not that good for pastoral purposes? I am afraid the dividends would not be too great.
1182. The proposal before us at present is only for an extension as far as Pilliga? The character of the country is all right. Every man does not want the cream of the country. There are thousands of people who would be content to go on to land from which they could make what they would call a good living; but perhaps it would be land which another man accustomed to better country would not touch.
1183. Would the extension of the railway to Pilliga assist the Walgett people in any way? Yes, very much, and it would assist the Coonamble people also. It would be about midway.
1184. What are the roads like from Walgett to Narrabri, from your experience as a mail contractor? They are all right in dry weather.
1185. They are not made roads, but bush tracks? Yes, cleared.
1186. Nothing has been done to keep them in repair? Not so far as I know. The timber is cleared; but no one will follow a cleared road after it is made.
1187. How is that? I do not know how it is, but they will not follow a cleared road; they will follow a track.
1188. If the roads cost nothing for construction, very little would be saved from the Roads Vote by the making of a railway? Carriers and others will not follow a metalled road, as it knocks their stock up and lames them.
1189. You think that an extension of the line from Narrabri to Pilliga would pay in a very short time? Yes; I am certain that a railway would pay in that splendid part of the country.
1190. Do you know anything about Newcastle? Yes, from calling there.
1191. If a line were constructed from Pilliga *via* Narrabri, do you think Newcastle would become the depôt for the wool-growers of Walgett and Pilliga, or do you think they would send their wool on to Sydney? Speaking personally, I should not be inclined to leave my wool-brokers in order to go to Newcastle.
1192. Sending the wool on to Sydney means another 100 miles carriage? I suppose people who ship their wool straight Home would prefer to send it to Newcastle? I may say, incidentally, that I understand a large dumping plant belonging to a leading firm in Sydney has been transferred to Newcastle, and this would seem to show which way the wind blows.
1193. You think it probable, then, that the squatters of Pilliga, Wee Waa, and Walgett, would make Newcastle the port of shipment for their wool? It is, perhaps, only natural that they would wish to save the 100 miles carriage; and I have no doubt those who send their wool Home would avoid the extra freight to Sydney.
1194. I suppose your wish is to have a line constructed to Pilliga, with the prospect of its being extended in the near future to Walgett? To take it only to Pilliga would be like holding the cup of water to Tantalus.
1195. One reason why you advocate this extension is because you hope it will ultimately be continued to Walgett? That is so; and every man who knows the country will say that such further extension would be justifiable.
1196. You think the line would be more profitable if it were carried on from Pilliga to Walgett? Yes; I believe the whole of the extension would pay, and that there would be no loss.
1197. If the line were extended to Walgett, how far would the wool come to the railway? You would have the Boorooma wool, 40 miles from Walgett; the wool from Milray, 35 miles; Dingie, 5 miles; Euroka, which adjoins Walgett, and Llanillo, which is 30 miles away. These are all large stations.
1198. Where does the wool go now? I think it goes to Narrabri. There is also Bundabareena, Dungalear, Euray Euray, and other stations.
1199. What is the average clip this year? I will put the average at over 6lb. My clip averaged 8lb., but the sheep had to be removed 300 miles from the run, and were not shorn until November.

FRIDAY, 12 NOVEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.	CHARLES ALFRED LEE, Esq.
The Hon. JAMES HOSKINS.	JOHN LIONEL FEGAN, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	THOMAS HENRY HASSALL, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	GEORGE BLACK, Esq.
The Hon. DANIEL O'CONNOR.	FRANCIS AUGUSTUS WRIGHT, Esq.
HENRY CLARKE, Esq.	FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

Louis Rich, sworn, and examined:—

- L. Rich. 1200. *Chairman.*] You were a member of the firm of Nelson, Rich, & Co., of Walgett? Yes.
- 12 Nov., 1897. 1201. You desire to give evidence with regard to the proposed railway from Narrabri to Pilliga, to form portion of a line from Narrabri to Walgett? Yes.
1202. *Mr. Humphery.*] Have you been in business at Walgett for any time? I was in business there from 1873 to 1889.
1203. What is the nature of your business? General storekeeper.
1204. What information do you desire to give the Committee concerning the proposal under consideration? Having lived in the district for a long period, and being acquainted with its resources, I think I possess a certain amount of knowledge as to the advantages that would result from railway communication. From my experience in business, I know that this part of the country has suffered a great deal in the past for want of railway communication.
1205. Do you know the district between Narrabri and Walgett, also between Coonamble and Walgett, and between Byrock and Brewarrina? Pretty well.
- 1206.

1206. And the district north of the Barwon? Yes; I may say that I know the country pretty well for a radius of 100 miles in all directions from Walgett. L. Rich.
12 Nov., 1897.
1207. Have you had transactions in moving stock and transporting wool? My transactions have varied from the smallest to the very largest items.
1208. Do you know anything about the freights on the river? Yes; I have paid river freights.
1209. Do you know anything about the extent of the traffic? Yes, I have some idea.
1210. In a general way will you inform the Committee of the extent of the traffic between Walgett and Narrabri, the freights that you have paid, and the probable number of bales of wool that would reach Walgett in the event of a railway being constructed to that place from Narrabri or from any point on the Western line? I was at one time one of the largest supporters of the railway in the shape of traffic sent from Narrabri. The goods traffic on a line from Walgett to Narrabri would be very great indeed, greater than I can at this time imagine. With regard to the probable traffic in wool, I am unable to speak definitely as to the number of bales.
1211. Assuming that a railway were constructed between Byrock and Brewarrina, what wool traffic do you think would reach Walgett? Traffic on the south side of the Barwon down to Brewin, and round by Wallari and right down to Carinda. I am supposing that there was a railway to Brewarrina and one to Walgett. If so, all this traffic would come to the Walgett railway.
1212. Can you speak of your own knowledge as to the probable traffic that would reach Walgett in an ordinary season? I could not from memory give any figures on that point. The traffic would vary according to the seasons.
1213. During the time you were in business at Walgett can you say where the traffic usually reached the railway—the traffic coming into Walgett? Narrabri. The wool from Brewin and the other places I have mentioned went to Narrabri.
1214. In the event of a railway being constructed between Narrabri and Walgett, would any wool, in addition to that which now reaches Walgett and finds its way to Narrabri, come to Walgett? Unquestionably.
1215. What additional wool would come in there? Wool that goes down the river when the river is up. When the river is navigable, which it is occasionally, though very seldom, the squatters take advantage of that means of transit.
1216. How much wool at present going by river to Bourke would come to Walgett in the event of there being a railway? I cannot give the number of bales, but can only speak in general terms.
1217. Have you any knowledge of the freights prevailing between Walgett and Bourke? Yes.
1218. What was the lowest freight per ton at the time you were in business? £3.
1219. Are we to understand that for the last eight years you have no knowledge of what has been going on in the district? Not very much, although I am still connected with the district.
1220. You are not living there now? No; but I have an interest in the district.
1221. How long is it since you ceased to have such a connection with the district as would require your constant presence there? I left in 1889, and I have only been there once since.
1222. So that you are not quite up to date in your information? Perhaps not quite, although I am in communication with the district yet.
1223. Are you able to say whether it would be more advantageous for the district of Walgett—I am not speaking of the township—to construct a railway between Narrabri and Walgett than to take a line from Coonamble to Walgett, assuming a line to be constructed to Coonamble either from Mudgee or Warren? I have a general knowledge of the district, acquired in connection with my business as a storekeeper, and also, I might say, as a financier, and I have a knowledge of the country, and particularly that between Narrabri and Walgett, over which I have travelled on foot, on horseback, in buggy, and in coach. In view of the proposals to extend the railway from Byrock to Brewarrina, and also from Mudgee and Dubbo to Coonamble, I think that a line from Narrabri to Walgett would be most advantageous, not only to the district itself, but to the Colony as a whole.
1224. Have you any knowledge of the character of the land? A fair knowledge.
1225. Can you make any comparison between the country through which a line would pass between Warren and Walgett, and that which would be traversed by a line from Narrabri to Walgett? In either case, the line would pass through good country.
1226. Which is the better country? I think the country between Pilliga and Walgett is good country.
1227. Do you think it equally as good as the other country? Yes, equally as good. If anything, the advantage would be greater in respect to the Narrabri to Walgett country, because the result of a railway would be that the indifferent country would become more useful and more valuable.
1228. Do you refer now to its value for pastoral purposes only, or for agricultural and pastoral purposes? I should say for pastoral purposes. I have just been looking at some terribly bad country—I suppose the worst country in Australia. I refer to parts of Western Australia. I have also lived in other districts, and I have seen some of the choicest country in New South Wales—that in the Yass district—and still I think the country we are speaking of is very good country. The country between Narrabri and Walgett will stand comparison with any country I have seen.
1229. But you are of opinion that that country is only good for pastoral purposes? Yes; mostly for pastoral purposes.
1230. And not suitable for agriculture? Not quite. With the application of science, and in the hands of capable men, it might become suitable for agriculture. The Yass district, for instance, is supposed to be agricultural country, but probably they may not have good men in it.
1231. As far as the district is concerned, would it be equally advantageous to the residents to have a line connecting with either the Western or the North-western railway systems? I am disposed to think it would be more advantageous to them to be connected with the North-western line.
1232. Will you give your reasons? The people would be able to get their supplies from Newcastle, which would be an advantage to Walgett.
1233. In what way? They could get their supplies from Newcastle at the same price as from Sydney.
1234. You mean they could do their business with Newcastle, instead of with Sydney, and thus save 100 miles of railway carriage? Yes; they would save the railway freight and other expenses. I cannot tell the exact amount, but there is an advantage in favour of Newcastle in regard to the purchase of goods.
1235. What was the extent of your business? Our turn-over some years was £60,000.

- L. Rich.
12 Nov., 1897.
1236. So that you are in a very large way? Yes. Our railway freights came to over £500 a month.
1237. I suppose you are aware of the rates of carriage between Walgett and Narrabri? Yes.
1238. What was the rate per ton when you were in business? For freight from Narrabri to Walgett, I have paid as low as £3 10s. and £4 per ton, and as high as £18 and £20 per ton.
1239. What is the lowest you have paid from Walgett to Narrabri for wool? The lowest was £5 10s. per ton.
1240. Do you know the rates at the present time? I do not.
1241. Beyond being able to tell the Committee that the traffic in your district would, in your opinion, justify the construction of a railway between Narrabri and Walgett, you are not in a position to give very much detailed information which would assist them? From my business connection with the residents of the district extending over a number of years, and particularly with small holders, I am in a position to testify to the advantages which would result from railway communication. The district is a pastoral one, in which there are more sheep farmers than cattle graziers, and the sheep farmers would succeed much better if they had access to a market to enable them to send away their young stock.
1242. And there would be a larger population? Yes; the population would increase.
1243. There would be more smaller holdings as the result of the railway? Yes; and less fear of the consolidation of holdings, such as has frequently been the case. Small holders are forced to sell out, because they cannot compete with others, owing to the difficulties of finding a market. I have a client up there at the present moment who has been struggling for many years. If, during the last year or two, he had been able to send his few lambs to market he would be in a far healthier position, and he would not have such a struggle for existence.
1244. I suppose you would support the statement made by other witnesses that in unfavourable seasons there is the river difficulty, and the difficulty of land carriage between Walgett and Narrabri? Exactly; the small holders are virtually starved out.
1245. Owing to the high rate of carriage? Owing to the inability of transit.
1246. The cost and the difficulty of transit? It is not only a question of cost, but the stock cannot travel.
1247. Then you would put it in this way: With regard to goods, there would be the difficulty, and the high cost, and there would be the impossibility of sending stock in an unfavourable season without the railway? Yes; I wish it to be distinctly understood that the greatest difficulty is in the case of the small holders who cannot move their stock in indifferent seasons.
1248. *Mr. Lee.*] I understand you to say that if a railway were made to Walgett, there would be a very large trade for it? It would unquestionably increase.
1249. What would cause this increase of trade? It would take place chiefly in connection with small holders. A railway would allow them to live there.
1250. What is the district going to produce;—what does it produce now? Wool.
1251. What will it produce in the future? Wool.
1252. What increase do you think is likely to take place in the production of wool as the result of a railway; when all that country is settled by small holders, or in any other way you like, what would be the increased production? According to last year's calculations the increase in a good season would be fourfold.
1253. Is not that country stocked at the present time? Not by any means.
1254. Do you think it capable of carrying four times the quantity of stock? I said, according to last season, which was a bad season.
1255. All seasons not being alike, you must take an average? Well, taking an average, I should say the increase would be more than double. I feel confident that increased settlement would take place.
1256. Do you think it a fair thing to estimate that the production of wool will double what it is at the present time? Yes. You may, of course, look forward to some agriculture, but not, perhaps, to the extent of estimating any real returns from that source. We can grow a little hay there, and probably wheat may be grown also.
1257. But only in quantities that would be used within the district? It would be more or less used in the district.
1258. It would not be exported to Sydney or Newcastle? That is more than I am prepared to say, after seeing the Riverina and other districts lately.
1259. Suppose the production of wool were double what it is at the present time, and that even when that additional railway freight was obtained, the loss on the line was over £3,000 a year, would you still advocate the construction of the railway? That loss would be made up by other traffic and other business. There would also be an increase of population and an increase in the stock traffic. The small holders, instead of losing their lambs as at present, would be able to send 100, 200, or 500 lambs to market, and they would also be able to send their fat stock. You must not look at the wool only, but also at the increase of stock.
1260. In this district, about how many acres are supposed to be sufficient to keep a settler? Since the introduction of artesian water, I think a man can live very nicely on 2,500 acres, even if he starts with small capital.
1261. That being about the average size of a settlement lease? Yes. A settler could live on less; but I think we might take 2,500 acres as a fair average, with the advantages now possessed in the shape of artesian water.
1262. Taking 2,500 acres as the area for one man, what room is there in that district for a large population? The district embraces a very large extent of country. There is a large tract of country between Pilliga and the back of Bullorora out towards the Castlereagh, and from there towards Carinda, and on the Barwon towards Brewin there is a fair stretch of country which you may call Walgett country.
1263. A large portion of which is unsuitable for close settlement? Yes, I think so; particularly the portion which is partly scrub country, although for purposes of settlement it would be very useful.
1264. If you put 100 additional families in that district it would mean 250,000 acres of land, and if you took 1,000,000 acres of land under settlement that would only represent 400 additional families;—where, then, is this enormous increase of trade going to come from as resulting from small settlement? You have also the northern side of the river from the Namoi to the Barwon and towards Goodooga.
1265. But 10,000 acres would only carry four families? In estimating 2,500 for one settler I am taking an average. I know one family who live on 40 acres, and who do well, and there are market gardeners living near the town on small areas.
- 1266.

1266. The construction of the line would depend upon the probable future development of that country. At present the estimate of traffic shows an enormous loss, and the Committee would like to know what is the prospect in the future? I fail to see how there could be a loss, even at the starting of the railway, though I am not in a position to say positively that there would not be a loss. On a former occasion I reasoned the matter out with the late Railway Commissioner.

L. Rich.
12 Nov., 1897.

1267. But you are not now prepared to go into details of that kind? No.

1268. *Mr. Wright.*] You know the country pretty well. It is said that if a railway were constructed between Byrock and Brewarrina all the following stations would send their wool into Brewarrina, notwithstanding that there was a railway at Walgett:—Milroy, Quantambone, Gnomery, Brenda, Muckerawa, Wirrah-warrah, Willow, Morrabilla, Boorooma, Gilgoin, Ballaree, Charlton, Weilmoringle, Kerrebree, Talawanta, Denman, Dumble, Cuttabunda, Upper-Bundabulla, Bundabulla, Collawaroy, Yarramin, Lower Willie East, Calga, Tarcoom, Compton Downs? Pretty nearly all those stations would send their wool to Brewarrina, though probably the wool from Dumble and Brenda might go to Walgett.

TUESDAY, 16 NOVEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
The Hon. JAMES HOSKINS.
The Hon. CHARLES JAMES ROBERTS, C.M.G.
The Hon. WILLIAM JOSEPH TRICKETT.
The Hon. DANIEL O'CONNOR.
HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
JOHN LIONEL FEGAN, Esq.
THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.
FRANCIS AUGUSTUS WRIGHT, Esq.
FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

George Charles Yeo, Draftsman, Stock Branch, Department of Mines, sworn, and examined:—

1269. *Mr. Hassall.*] You have heard of the proposal to construct a railway from Narrabri to Pilliga? Yes.

G. C. Yeo.
16 Nov., 1897.

1270. You have a knowledge of the stock depasturing in that district? I have a return giving information regarding stock.

1271. Does your return embrace, not only Narrabri to Pilliga, but as far as Walgett? I have a map showing the area it embraces. The following are the holdings likely to be affected by a railway:—Burren, Boolcarroll, Bullerawa, Cryan, Drildool, Gorian, Wee Waa South, Nowley, Merah, Pian Creek, Buglebone, Bungle Gully, Come-by-Chance, Eurie Eurie, Euroka, Goangra, Kucargo, Ulumbie, Yarraldool, Pilliga, Mercadool, Warragan, Tharambone, Billeroy, Coghill, Wangen, and Cubbo.

1272. Those are the holdings within the scope of the proposed line? Those are the holdings supplied to me. I have a return of stock on those holdings in 1896. It is as follows:—

Holding.	Horses.	Cattle.	Sheep.	Holding.	Horses.	Cattle.	Sheep.
1. Burren.....	65	70	31,340	15. Euroka	36	90	33,541
2. Boolcarroll	132	804	77,400	16. Goangra	57	41	28,497
3. Bullerawa	36	1,260	10,914	17. Kucargo	23	60	8,717
4. Cryan	75	80	17,200	18. Ulumbie	32	85	12,450
5. Drildool	122	1,800	43,723	19. Yarraldool	59	400	24,278
6. Gorian	43	200	49,684	20. Pilliga	29	23	42,250
7. Wee Waa South	20	200	9,000	21. Mercadool	75	317	52,890
8. Nowley	100	70	20,634	22. Warragan	4	.....	13,000
9. Merah	30	850	17,080	23. Tharambone	33	182	21,134
10. Pian Creek	22	47	2,412	24. Billeroy	20	100	4,825
11. Buglebone	70	1,320	41,726	25. Coghill	10	1,400	.....
12. Bungle Gully	60	134	33,408	26. Wangen	30	800	.....
13. Come-by-Chance	100	200	11,000	27. Cubbo	43	162	.....
14. Euray Euray	35	570	29,811				

The number of holdings is twenty-seven and the total quantity of stock is, horses 1,421, cattle 12,265, and sheep 636,914. There are a number of small holders living on these large holdings. I have a list of these smaller holdings, giving particulars of the stock carried. It is as follows:—

LIST of Small Stockowners, with their addresses, and number of stock in the district shown by pink tint on map "A" for year 1896.

Progressive Number.	Names of Owners.	Name of Run or Holding.	Nearest Post Town.	No. of Horses.	No. of Cattle.	No. of Sheep.
1	Allen, Mrs. C.	Clan Alpin	Cuttabri	18	40	509
2	Baker, W. ....	.....	Pilliga	2	6	.....
3	Baldwin, D. W. W.	Merryvale	Wee Waa.....	6	10	650
4	Baldwin, Mrs. C.	Balmoral	"	5	12	1,800
5	Belson, C. ....	.....	" .....	26	21	500
6	Bennett, H. M.	Benniley Park.....	"	39	27	9,835
7	Blackwell, E. V. ....	.....	Pilliga	6	5	.....
8	Boxwell, J. S.	Nowley.....	Narrabri	14	6	.....
9	Brummell, W. ....	.....	Pilliga	11	11	.....
10	Buchanan, F. J.	Petland Park	Narrabri	5	46	1,283
11	Buchanan, A.	Millie	Pilliga	50	700	13,065
12	Burrell, S. ....	.....	" .....	3	5	80
13	Burns, P.	Fairfield	"	8	3	653

G. C. Yeo.
16 Nov., 1897.

Progressive Number.	Names of Owners.	Name of Run or Holding.	Nearest Post Town.	No. of Horses.	No. of Cattle.	No. of Sheep.
14	Campbell, F. L.	Cubbo	Wee Waa	21	103	.....
15	Campbell, C.		Baradine		40	.....
16	Campbell, B. B.	Cubbo	Wee Waa	22	59	.....
17	Carstairs, A.	Byjama	Narrabri	17	31	814
18	Casey, D.	Furer	Baradine	3	20	.....
19	Cobb & Co.	Pilliga	Pilliga	139	.....	.....
20	Colliss, W. A.		Come-by-Chance	13	.....	8
21	Croxon, W. B.		"	2	.....	1,360
22	Dangar, F. V.	Kimaculla	Pilliga	20	40	2,000
23	Dempsey Bros.	North Lynne	"	23	360	4,000
24	Dewson, E.	Rosefield	Wee Waa	55	16	354
25	Duncan, J.	Burren	Narrabri	50	105	2,873
26	Evans, J. H.	Bunglegully	Come-by-Chance	10	15	.....
27	Everingham, H.	Nowley	Narrabri	16	0	3,500
28	Francis, G.	Redbank	Wee Waa	20	30	5,925
29	Gallery, M.	Merah	"	16	25	.....
30	Gordon, W. G.	Horwood	Billeroi	8	12	1,000
31	Green, W.	Eastburn	Wee Waa	30	19	1,420
32	Hall, J. E.	Brigalow Creek	"	7	20	.....
33	Hamilton and Sons	Moleen	"	18	57	15
34	Hamilton and Sons	Merah	"	76	225	4,846
35	Hardy, O. J.	Burren	Narrabri	6	30	1,533
36	Heads, J. and J.	Keinbri	Baradine	4	40	.....
37	Heads, R.	Gibrian	"	50	250	.....
38	Heads, Louisa	Maryfield	"	24	80	70
39	Heads, W.	Keinbri	"	32	60	270
40	Hogan, J. B.	Brigalow Creek	Wee Waa	12	9	50
41	Holcombe, E. A. A.	Evermore	"	5	.....	1,900
42	Holcombe, W. R.	Weta Waa	"	24	180	5,935
43	Holcombe, Fanny	Eden More	Pilliga	10	21	4,566
44	Holland, R. J.	Wambo	"	26	14	.....
45	Holland, R.	Sunnyside	"	5	20	3,000
46	Houlahan, W.	Plainview	"	12	70	3,000
47	Howard, M. J.	Effingham	Wee Waa	7	7	2,550
48	Hunt, J. and J.	Sunnyside	Narrabri	5	11	1,200
49	Hunt, W. H.	Nowley Park	"	26	20	1,117
50	Hunt, J.	"	"	1	7	1,694
51	Hunt, Jacob, junior	"	"	6	2	1,614
52	Hunt, G.	"	"	12	7	1,994
53	Hutcheson, H.	Burren East	"	8	10	3,950
54	James, W. F.	Brigalows	Pilliga	14	50	1,002
55	Kilaher, Con.	Cousdale	Wee Waa	20	12	2,995
56	Knight, J.	Cashmere Vale	"	15	16	3,500
57	Knight Bros.	Warrenbri	"	50	100	9,950
58	Leonard, J.	Coghill	Cuttabri	20	.....	.....
59	Loder, A. M.	Purlewis	Wee Waa	10	22	1,732
60	Loder, T. A.	Erioton	Narrabri	15	15	1,032
61	Loder, A. E.	"	"	7	21	.....
62	Loder, W. M.	Merah	Wee Waa	27	370	.....
63	Long, C. F.	Drilddool	Pilliga	10	.....	.....
64	Long, C. A.	"	"	22	.....	.....
65	Malone, J.	"	"	7	14	36
66	McCarthy, D.	Dew Hollow	"	2	3	350
67	McFarlane, G.	Maxweltou	Wee Waa	9	22	1,562
68	McMahon, M.	Weta Waa	"	19	70	1,000
69	McMahon, M., junior	Nowley	Narrabri	9	70	2,000
70	Mitchell, W. F.	Gunnedra	Wee Waa	23	27	2,956
71	Maloney, D.	Nardoo	Narrabri	50	4	1,016
72	Moore, J.	Moorefield	Pilliga	5	4	.....
73	Moore, M. T.	Burren	Narrabri	38	241	5,146
74	Morrow, R.	Bullerawa	Wee Waa	4	0	200
75	Murphy, E. P.	Millie View	Pilliga	23	29	2,455
76	Mulcahy, P.	Nowley	Narrabri	10	20	5,700
77	Nowlan, J.	Lilyrale	"	15	20	2,120
78	N.S.W. M. L. & A. Co.	Avon Downs	"	12	14	8,500
79	O'Mullane, E.	Clearview	Pilliga	7	18	2,962
80	O'Mullane, P. J.	Collingwood	"	5	.....	970
81	O'Mullane, D.	Beaconsfield	"	8	9	1,100
82	O'Mullane, H.	Commonview	"	3	40	.....
83	O'Mullane, T.	Forest Hill	"	11	22	1,365
84	O'Neil, M. J.	Beaconsfield	"	2	.....	700
85	Phelps, W.	Wombadule	"	17	150	.....
86	Phelps Bros.	Sledge Holes	"	46	10	4,902
87	Powell, S.	West Drilddool	"	36	242	6,090
88	Quinn, J.	Deendirrah	"	13	.....	3,411
89	Radford, P.	Dead Finish	Wee Waa	10	.....	1,600
90	Radford, J.	Pian Creek	"	2	4	2,000
91	Raines, W.	Nowley	Narrabri	.....	.....	390
92	Robertson, J. M.	Weta Waa	Wee Waa	10	40	18
93	Rodwell, L.	"	"	4	24	.....
94	Russell, J.	Bonny Hill	"	20	20	2,000
95	Ryan, P.	Cashel	Pilliga	70	100	4,260
96	Ryan, Con.	Burren	Narrabri	40	.....	500
97	Ratliffe, E. S.	Waverley	"	4	19	952
98	Seiol, J. B.	Borah	Baradine	13	80	4,000
99	Shearer, J.	Bonnie Rigg	Narrabri	5	6	1,966
100	Sherwood, R.	"	Pilliga	9	25	.....
101	Smail, A.	Kerryabas	"	7	5	2,908
102	Smith, W. B.	Buglebone	"	26	40	2,600
103	Smith Bros.	Woodlawn	Wee Waa	9	20	1,900

G. C. Yeo.
16 Nov., 1897.

Progressive Number.	Names of Owners.	Name of Run or Holding.	Nearest Post Town.	No. of Horses.	No. of Cattle.	No. of Sheep.
104	Smith, S. S.	Wee Waa	Wee Waa.....	10	30	980
105	Sweeting, S.	White Woods	Narrabri.....	5	7	1,400
106	Teys, S. A.	Merah	Wee Waa.....	3	.....	1,300
107	Thompson, Mrs. L.	Woodlands	"	36	1,260	10,914
108	Tompkins, J.	Pian Creek	"	13	.....	.....
109	Toohy, J. J.	Billaboo	Narrabri.....	6	4	2,410
110	Trindall, Mrs. ....	.....	Cuttabri	26	30	.....
111	Trindall, W. E.	Ringarge	"	10	50	758
112	Turner, O.	Lesayre	Wee Waa.....	6	12	4,960
113	Williams, J. M.	Keinbry	Baradine	27	70	402
114	Wilson, W.	Dereen	Wee Waa.....	12	22	1,065
115	Wyatt, W.	Fairview	Narrabri.....	8	6	2,518
116	Belson, C.	Armadillah	Wee Waa.....	23	30	1,012
117	Smith, A.	Brigalow Ridge	Millie	28	12	900

The list contains seventy-five other holdings of a similar character.

1273. *Mr. Wright.*] Are town allotments included in the holdings you have given? Yes; everybody has to make a return. The number of large holders is twenty-seven, and the number of small holders 192. The number of stock on the large holdings in 1896 I have already given. The stock on the small holdings in the same year was 3,001 horses, 7,741 cattle, and 391,886 sheep. This gives a total number of holdings, large and small, of 219, carrying 4,422 horses, 20,006 cattle, and 1,028,800 sheep. I have also a return of the stock for the last four years within the same area. It is as follows:—

Year.	Horses.	Cattle.	Sheep.
1893.....	4,618	21,154	1,099,220
1894.....	4,640	23,157	1,148,425
1895.....	4,120	19,498	989,381
1896.....	4,422	20,006	1,028,800

I have also a return of the estimated number of stock passing Pilliga during 1896. According to the figures shown in the returns, the year 1896 might be taken as an average one. Travelling south—that is, going up the Namoi, making for either Narrabri, Muswellbrook, or any of the southern markets—the figures were—large stock, 3,000; sheep, 280,000. Then travelling north—that is, going towards Walgett—the figures were—large stock, 1,500; sheep, 130,000; the total being 4,500 large stock and 410,000 sheep. I have also a return of the number of sheep shorn, and the weight of clip for 1896, on the runs mentioned. The estimated number of sheep shorn was 875,000, and lambs, 125,000, making a total of 1,000,000. The weight of fleece in the grease was—sheep, 6 lb.; lambs, 2 lb. The total weight of clip was 2,455 tons 7 cwt.

1274. *Mr. Hassall.*] According to the figures you have given the number of stock for the years mentioned did not vary very much? No; 1895 was a very bad year, and 1894 was a good year in that locality.

1275. And 1894 compares favourably with 1896? Yes.

1276. The district was not more fully stocked in 1896 than in 1893, practically speaking? No.

1277. The figures for the years from 1893 to 1896 give a very good idea of the number of stock pastured in that district year by year? Yes.

1278. You would not anticipate any large increase on that number? No.

1279. In regard to the stock passing through Pilliga, travelling south, have you any knowledge of their destination—whether they would be going to market or whether they would be travelling to other pasturage? No.

1280. I suppose the estimate you could make of the number of stock travelling for rail would only be approximate? It would be difficult to say what proportion would be travelling for rail. Some would be going to fattening country, others would be going to the markets, and others would be going to be trucked at Narrabri.

1281. They might go in half a dozen different directions? Yes; they might branch off at Pilliga and go south to Coonabarabran and down to Coolah, or they might go into Narrabri and on to Muswellbrook.

1282. The estimate for 1896 would be a pretty fair estimate of a year's wool traffic? Yes; the clip of 1896 increased 1 lb. on the 1895 clip, and the inspector puts it down as a fair average.

1283. So that practically it would represent about the quantity of wool that would be available for transit year by year? Yes.

1284. In the list of smaller holders you gave there are a large number with a very limited quantity of stock;—do you know whether those men are selectors or whether they are town residents? I could not say, but I should surmise that they are town residents.

1285. No man could make a living off thirteen horses and eight sheep, for instance, or ten horses and sixteen cattle? No; I think those holdings would be held by residents in the town. The holdings carrying numbers of sheep would be those of selectors.

1286. The men with over 200 sheep might be selectors? Yes; or they might be butchers.

1287. If the line were extended to Walgett a very much larger number of holdings would be served than those mentioned in your return? Yes.

1288. What you have given are only the holdings which would be served by the extension to Pilliga? Yes.

Joseph Clarke, Inland Mail Clerk, Postal and Electric Telegraph Department, sworn, and examined :—

J. Clarke. 1289. *Mr. Roberts.*] Could you give the Committee information as to any mail contracts at present existing from Narrabri to Wee Waa, from Wee Waa to Pilliga, and from Pilliga to Walgett? Yes; 16 Nov., 1897. I have the particulars here of the present contract prices on mail lines along the sections you have mentioned, and the prices for next year's contracts in the case of those that will run out at the end of this year.

1290. Have all the contracts of the mail service for 1898 been accepted? Nearly all.

1291. Then your information will be what I might term up to date? Exactly. The return I have prepared is as follows :—

PARTICULARS of Contracts for the Narrabri, Pilliga, and Walgett Mail Service, and Branch Lines therefrom for the current year, and, in cases where they will expire on the 31st December, of the new contracts from 1st January, 1898.

Postal Lines.	Distance in Miles.	Frequency of Communication.	Mode of Conveyance.	Annual amount payable to Contractors.	Date of termination of Contracts.
Narrabri, Wee Waa, Cuttabri, Pilliga, Come-by-Chance, and Walgett.	125	No. of times per week. Three ...	Coach, 2 or more horses.	£ 1,095 s. 15 d. 0	31 Dec., 1897.
Narrabri and Collarendabri, via "Myall Vale Hotel," Boolcarroll Station, "Rosehill Hotel," Harden Brothers', Lower Boolcarroll, "Yarranbar Hotel," Nowley station, Maloney's "Bulyeroi Hotel," Barrett's, Lord's, G. Shearer's, Merrywinebone, and Pockataroo.	110	Two	4-horse coach.	447 10 0	31 Dec., 1897.
With a branch mail to and from "Myall Vale Hotel," Wall's, Power's, Wyatt's, Cohen's, Maxwell's, and Lehane's.	13	Two	Horseback		
Nowley station, Cryan, and New Cryan, via Wyatt's, Nowland's, Barton's, Burren station, "Burren Hotel," Old Burren, and Galara.	45	Two	Conveyance, 2 horses.	100 0 0	31 Dec., 1898.
Collarendabri, Moongulla, and New Angledool, via Gamalally, "Moongulla Hotel," Moongulla station, Piangobla station, Moondoo Bore, and Yeranbah station;	66	One	4-wheeled vehicle.		
With a branch mail to and from "Moongulla Hotel" and Dunimbral station; and	9	One	Horseback	169 0 0	31 Dec., 1897.
Collarendabri and Piangobla, via Pearce and Humphries', Sherritt and Grant's, Stinson and Leehy's, "Moongulla Hotel," Dunimbral and Moongulla Stations.	50	One	Horseback or by vehicle, as required.		
From Narrabri, via Shutz's, Blaney's, Bailey's, Egan's, G. Smith's, Frater's (Deep Creek), Gett's, Brake's, F. Smith's, W. Smith's, Barton's, Whalen's, Gregory's Billingsley's, and Orman's, to Dunmore's, returning to Narrabri, via Marshall's, Donaldson's, Robinson's, and the other places named.	30	Two	Horseback	44 0 0	31 Dec., 1898.
Narrabri, Eulourie, and Bingara, via Killarney, Edgeroi, Avondale, Single's, Berrigal (Terrihihi out station), Rocky Creek, Pallal, and Derra Derra.	112	One	Horseback	89 10 0	31 Dec., 1898.
Wee Waa and Bugilbone, via Nowland's, Fern Grove, Holcombe's, Boysdale, Newstead, Boo Boo, Thompson's, Fenwick's, St. Clair's, Pine Grove, Knight's, Russell's, Bennett's, Powell's, Dempsey's, Murphy's, and Capp's, Millie.	60	Two	Horseback	89 0 0	31 Dec., 1897.

New Contracts from 1st January, 1898, in cases where present Contracts will expire.

Narrabri, Wee Waa, Cuttabri, Pilliga, Come-by-chance, and Walgett, three times a week—James Rutherford, of Bathurst, coach, 2 or more horses, 3 years, £1,350 per annum. Narrabri and Collarenebri, via "Myall Vale Hotel," Boolcarroll Station, "Rosehill Hotel," Harden Brothers', Lower Boolcarroll, "Yarranbar Hotel," Nowley Station, Maloney's "Bulyeroi Hotel," Barrett's, Lord's, G. Shearer's, Merrywinebone, and Pockataroo, twice a week—James Rutherford, of Bathurst, coach, 2 or more horses, 3 years, £594 10s. per annum. To and from "Myall Vale Hotel" and "Boggy Creek Hotel," via Wall's, Power's, Wyatt's, Maxwell's, Cohen's, Lehane's, junior, Lehane's, senior, E. S. Borthwick's box, and W. M. Borthwick's (Ford's) twice a week, on horseback, for one year only, £88. "Myall Vale Hotel" (on the Narrabri-Collarenebri mail line), Wall's, Power's, Wyatt's, Cohen's, Maxwell's, and Lehane's, twice a week. Fresh tenders invited; to be opened Monday, 15th November, 1897.

Collarenebri, Moongulla, and New Angledool, via Gamalally, "Moongulla Hotel," Moongulla Station, Piangobla Station, Moondoo Bore, and Yeranbah Station, once a week (with a branch mail to and from "Moongulla Hotel" and Dunimbral Station, once a week); and Collarenebri and Piangobla, via Pearce and Humphries', Sherritt and Grant's, Stinson and Leehy's, "Moongulla Hotel," Dunimbral and Moongulla Stations, once a week—G. T. Henry, of New Angledool, 4-wheeled vehicle, 2 or more horses, 3 years, £149 per annum, conditionally.

Wee Waa and Bugilbone, via Nowland's, Fern Grove, Holcombe's, Boysdale, Newstead, Boo Boo, Thompson's, Fenwick's, St. Clair's, Pine Grove, Knight's, Russell's, Bennett's, Powell's, Dempsey's, Murphy's, and Capp's, Millie, twice a week—John J. Knight, Wee Waa, horseback, 1 year, £85, conditionally.

Postal Lines.	Distance in Miles.	Frequency of Communication.	Mode of Conveyance.	Annual Amount payable to Contractors.	Date of Termination of Contracts.
Wee Waa, Bennley Park (Bennett's), and Lezayre, <i>via</i> Kella-her's, M'Phee's, Long Point, A. Belson's, Hutchison's, Moore's, C. Belson's, M'Farlane's, Baldwin's, Francis', G. Capel's, H. Capel's, Linwood, and Moore-field.	69	No. of times per week. Two	Horseback	£ s. d. 79 15 0	31 Dec., 1898.
Cuttabri and Baradine, <i>via</i> Cumble, Yuligle, Cumble, Upper Cumble, and Gibbean. (Contractor to convey mails once a month by two-horse buggy, and at other times on horseback, for the sum of £75 per annum, if required).	64	One	Horseback	64 10 0	31 Dec., 1897. (This service will be discontinued from 1st January, 1898.)
Pilliga, Bugilbone, and New Cryan, <i>via</i> Bugilbone Station, O'Mullane's Yarraldool Station, Moffat's, Balgarnie's, Forest's, Magner's, Holcombe's, Rutley's, and Athawe's.	52	One	Buggy, 1 horse.	55 0 0	31 Dec., 1898.
Pilliga, Bugilbone, and Yarraldool, <i>via</i> Bugilbone Station, O'Mullane's, Balgarnie's, and Moffat's.	34	Two	Buggy, 1 horse.	85 0 0	31 Dec., 1898.
Come-by-Chance and Kensington, <i>via</i> W. Colless', McQuillen's, T. Firth's, and E. Bishop's.	19	One .....	.....	30 0 0	At one month's notice.
Walgett, Boorooma, and Brewarrina.	105	Two	2 or 4 horse coach.	168 0 0	31 Dec., 1897. Walgett, Boorooma, and Brewarrina, twice a week—James Flanagan, of Bourke, 4-wheeled vehicle, 2 or more horses, 3 years, £200 per annum.
Boorooma and Willenbone, <i>via</i> Overflow, E. Young's, T. R. Young's, Binghi, Buckingham, Narranreggie, Box Camp, and Ross' selection.	25	Two	Horseback	34 0 0	Contract to terminate at three months' notice on either side.
Walgett, New Cryan, and Cryan (Lynam's), <i>via</i> Moore's Walmar, Binnie's, Clarke's Box, J. A. Colwell's, Brough's, and Webeck's.	40	One	Horseback	58 10 0	31 Dec., 1899.
Walgett, Collarenebri, and Mogil Mogil, <i>via</i> Eurie Eurie, Manilla, Mercadool, "Mercadool Hotel," Millar's, Dodd's, M'Donnell's, Smith's, Taylor's, Cameron's, O'Connell's, Walpole's, Kirby's, Jennings', and Wright's.	97	Two	Buggy, 2 or more horses, when required, between Walgett and Collarenebri; thence to Mogil Mogil by buggy, 2 or more horses.	174 17 6	31 Dec., 1897. Walgett and Collarenebri, <i>via</i> Eurie Eurie, Manilla, Mercadool, "Mercadool Hotel," Millar's, Cameron's, M'Donnell's, O'Connell's, Kirby's, Wright's, and Jennings', twice a week—George J. Christoff, of Walgett, light 4-wheeled vehicle, 2 or more horses, 1 year, £140. Collarenebri and Mogil Mogil, twice a week—George T. Henry, of Collarenebri, 4-wheeled vehicle drawn by 2 horses, 1 year, £39. Mogil Mogil, Cambo Cambo (Sevill's), and Burrenbah, <i>via</i> Burren Burren Station, Picton's, "Gundablue Hotel," Gundablue Station, and Ryan's (Kundilla), twice a week—P. P. Commins, of Mogil Mogil, horseback, 3 years, £65 per annum. Walgett, Angledool, New Angledool, Currawillinghi, Hebel, and Goodooga, once a week—Richard F. Gore, of Brewarrina, 4-horse coach, 3 years, £239 per annum.
Mogil Mogil and Cambo Cambo (Sevill's), <i>via</i> Burren Burren station, Picton's "Gundablue Hotel," Gundablue station, and Ryan's (Kundilla).	23	Two	Horseback	80 0 0	31 Dec., 1897.
Walgett, Angledool, New Angledool, Currawillinghi, Hebel, and Goodooga.	140	One	Coach, 2 or 4 horses.	278 0 0	31 Dec., 1897.
Walgett, Comborah, and Goodooga, <i>via</i> Springs, Grawin, Wilby Wilby, and Muckerawa*.	86	One	Conveyance, 2 or 4 horses.	*140 0 0	31 Dec., 1898.
Comborah (on the Walgett-Goodooga mail line), and John Simpson's, <i>via</i> Potts', Loughnan's, and M'Phee's.	30	One	2-wheeled vehicle, 1 horse.	39 0 0	31 Dec., 1897. Comborah, and John Simpson's, <i>via</i> Potts', Loughnan's, and M'Phee's, once a week—Not yet decided.
Walgett and Goodooga	97	One	Coach, 2 or more horses.	160 0 0	31 Dec., 1899.
Weetalibah and New Angledool..	14	Two	4-wheeled vehicle, 2 horses.	39 10 0	31 Dec., 1897. Weetalibah and New Angledool, twice a week—Joseph Hammond, of New Angledool, waggonette, 2 horses, three years, £52 per annum.
Walgett and Carinda, <i>via</i> Old Kidgear, Polly Brewan, The Wilgas, Bogewong, and Warren Downs.	60	One	Conveyance, 2 or 4 horses.	134 0 0	31 Dec., 1898.

* Contractor allowed £10 per annum extra for travelling on return journey to Walgett, *via* New Bangate Station, Loughnan's, Wilby Wilby, Grawin, and Springs, from 1st February, 1897 (96 miles).

- J. Clarke.
16 Nov., 1897.
1292. What are the branch services between Narrabri and Walgett? The most important one is the second on the list I have just given, the total annual payment to the contractor being £447 10s. The amount of the contract for next year is £594 10s.; and there has been also an additional branch service at the cost of £85, the contract for which was accepted to-day.*
1293. What is the difference in the amount of the last year's contract and next year's contracts? The difference is £232.
1294. How do you account for that increase over last year—is the mail-matter to be carried heavier? Yes. Besides, about three years ago, Cobb & Co. cut in at very low prices.
1295. Is there any increase in the contract price of the service from Narrabri to Walgett over last year? Yes; there was an increase of £254 5s.
1296. Can you tell the Committee whether the increases in the mail contracts for next year, as shown in your return, are common all over the coaching traffic of the Colony;—could you give us the amounts paid by the Department for the carriage of mails, apart from the railways, for the years 1897 and 1898? No; but I could give you the amounts paid for the carriage of mails by horse, coach, &c., for a certain number of years. For 1893 the expenditure was £95,550 7s. 3d.; in 1894 it was £95,867 8s. 6d.; in 1895 it was £95,805 11s. 8d.; and in 1896 it was £88,675 17s. 3d. There was a material reduction last year, and I think you might say that for next year there will be a slight reduction of those figures.
1297. There have been no lines of railways, to any extent, opened in the last few years that would make a difference? That does not affect us very much. You can see that by the figures all through. The expenditure in regard to coaches and horses is generally about the same; because when a railway is constructed the result is several small mail lines instead of one large one.
1298. If a railway were constructed from Narrabri to Pilliga, what mail contracts by coach or horse would be cancelled? The contract from Narrabri to Pilliga would be cancelled.
1299. Has the Department power to cancel a contract during the year? Yes; on the extension of a railway.
1300. What expenditure would be rendered unnecessary for the carriage of mails by coach if the railway were constructed from Narrabri to Pilliga;—what is the Department now paying for the carriage of mails? We have one contract from Narrabri to Walgett for which we will pay next year £1,350, or a little over £10 per mile.
1301. Then the distance from Narrabri to Pilliga being 53 miles, the amount paid by the Department for the carriage of mails between those places may be said to be under £600? Yes.
1302. Do you know what is the estimate of the Railway Department for the carriage of mails between Narrabri and Pilliga in the event of the railway being constructed? It would be either £12 or £20 a mile, according to the weight of the mail-matter. I think in this case it would be £20 per mile. Where the weight of the mail-matter does not exceed 2 cwt. per day, the charge is £12 per mile; and where the weight is over 2 cwt. per day the charge is £20 per mile.
1303. The heavier the mail, the more you have to pay? Yes; I think in this case the weight of the mail would take the service out of the £12 category.
1304. Could you give us a few examples—1st grade, 2nd grade, and 3rd grade? From Jerilderie to Berrigan would be a £12 section, and from Goulburn to Bungendore and Cooma would be a £20 section.
1305. What would an intercolonial line be? South, it would be £36. Another element comes in with regard to the south. Up to the year 1885 there were a number of lines for which we used to pay a certain amount. Then it was agreed to bunch those lines and fix the amount for a certain number of years, and on all lines opened since 1885 we pay the £12, £20, and £36 rates.
1306. You would not pay £36 from Sydney to Albury? No; that comes within the lump sum, and the same in regard to some of the lines going west.
1307. From Sydney to Bourke? Part of that line comes in under the 1885 arrangement, and we pay a lump sum.
1308. Could you give the Committee information as to the amount of correspondence at Pilliga? The figures giving the quantity of mail-matter and parcels between Narrabri and Walgett are as follows:—Average number of bags per trip, tri-weekly, 19 to 32; average weight per trip, 7 to 9 or 16 cwt.; average number of bags per week, 79; average weight weekly, 1 ton 13 cwt. That is from Narrabri to Walgett. Then back from Walgett to Narrabri there are from 15 to 23 bags tri-weekly, weighing about 3 cwt.; average number of bags per week, 61; average weight per week, 9 cwt. I took the average from the time-bills of two or three months.
1309. Do you believe that the correspondence along the line from Narrabri to Walgett is on the increase? I think it must be, because we have had numerous representations in regard to the difficulties of getting the mails along the line at a certain pace. We wanted to increase the speed, but it was represented that that was impossible owing to the larger number of mails and the weight of the mail-matter.
1310. Has there been any demand for a daily mail from Narrabri to Walgett? Yes; there has been an application for a daily mail.
1311. Do you know anything about the passenger traffic on the line? No; I only know that the coaches carry passengers. Of course, we take care that they do not carry more passengers than they ought to do, or such a number as would cause delay in the mails.
1312. If a railway were made from Narrabri to Pilliga, do you think any marked increase would take place in the revenue from the carriage of parcels;—would not the parcel post be more largely availed of than at present? I do not think so.
1313. Did the institution of the parcel post add very much to the expenditure of your Department;—I mean by increasing the prices of the mail contracts? No; not very much.
1314. All your contractors are bound to carry parcels? Yes; a horse mail up to 3 lb., and a coach mail up to 11 lb.
1315. Would it not happen that, in consequence of the parcel post, you would have, in many cases, to call for a contract for a coach service where a horse service previously sufficed? We very seldom specify the mode of conveyance. We leave that to the tenderer, and always give preference to the conveyance of mails by vehicle.
1316. Is there any increase in the newspaper traffic from Sydney? I could not say at present. I could not give any statistics in regard to the newspaper traffic. I know it is pretty considerable on Wednesday, when

* NOTE (on revision) :—The cost of the service between Narrabri and Walgett is now £1,095 15s. per annum, and the price for next year's contract £1,350.

when the weekly papers are transmitted. Where formerly there were one or two bags we now have to send perhaps three, four, five, or six.

J. Clarke.
16 Nov., 1897.

1317. You only carry newspapers that are less than a week old? We only carry those free. On newspapers more than a week old we charge a half-penny up to 10 oz., and a penny for anything beyond that.

1318. I suppose there are not many newspapers carried that are a week old? I do not think so.

1319. Have you any record of the amount of revenue received from the carriage of such newspapers? I do not think so.

1320. Could you tell the Committee what it costs the Department to carry the newspapers free over New South Wales? I do not think we have anything to show that. We take the tenders for the whole. The only way would be to knock off the newspapers altogether, and then see what the tender price would be. I do not think it would make much difference.

1321. From your experience, do you think there would be any marked decrease in the contracts if the newspapers were not carried free;—would there be a number of horseback services instead of vehicles? Horses are replaced by vehicles according to the requirements. A traffic springs up, and then a coach comes in, and we get services at a lower price, and the public pay to some extent, as it were, for the convenience.

1322. Is it a fair thing to assume that the carriage of newspapers is not really a serious expenditure to the Government of the country? Not with regard to the conveyance, I should imagine. Of course, there is the handling; there is a good deal in that way.

1323. What is the maximum size of the parcels that you carry by parcel post? Eleven pounds.

1324. Is that all over the Colony? To all places where there is a conveyance by vehicle, steamer, or train. On horseback lines the weight is only 3 lb.

1325. *Mr. Humphery.*] Can you tell the Committee in which of the other colonies newspapers are carried free? The information is contained in the memorandum which I now hand in. [*Vide Appendix.*]

1326. Can you say what amounts are paid in the other colonies for the carriage of mails by rail? The particulars, so far as they can be obtained from the information at my command, are shown in the statement which I have prepared and now hand in. [*Vide Appendix.*]

WEDNESDAY, 8 DECEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
The Hon. JAMES HOSKINS.
The Hon. CHARLES JAMES ROBERTS, C.M.G.
The Hon. WILLIAM JOSEPH TRICKETT.
The Hon. DANIEL O'CONNOR.
HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
JOHN LIONEL FEGAN, Esq.
THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.
FRANCIS AUGUSTUS WRIGHT, Esq.
FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

Henry Nelson, sworn, and examined:—

1327. *Chairman.*] You have written a letter to the Committee asking to be examined? Yes.

H. Nelson.

1328. *Mr. Wright.*] You were for some time a resident of Walgett, were you not? Yes.

1329. Were you in business long at Walgett? I was in business there since 1865; but I resided in Walgett from 1873 to 1889. 8 Dec., 1897.

1330. You had a business there some years before you resided there? Yes; we owned a business on Meri Meri, and after that we owned a business in Coonamble.

1331. I suppose you know the country fairly well? I ought to; I have been there for many years.

1332. Do you know the Narran country and all up that way? Yes.

1333. Will you give the Committee your opinion about the proposed railway? A railway from Narrabri to Walgett would undoubtedly open up a great extent of country, and not only a rich timber country, but land which, if not all fit for pastoral purposes, would be fit for agriculture.

1334. You mean the land between Pilliga and Walgett? Between Narrabri and Pilliga. The land between Pilliga and Walgett, I should say, would be most suitable for pastoral purposes. It is all good country; but between Narrabri and Pilliga, any of the land along that line, if it were cleared, would make really good cultivation country. It is not much good for pastoral purposes.

1335. Is the rainfall sufficient for cultivation? Of course the country is liable to drought, and there would be seasons when you would not get a crop.

1336. I am speaking of the average rainfall. It wants 20 inches per annum to cultivate wheat;—do you think there is such a rainfall in that district? I really do not know what is the actual rainfall. I know that in the Walgett district we always suffered from want of rain. We had either too much or too little.

1337. Will you kindly look at the map and tell us what you think of the proposed route? From Narrabri to Wee Waa you could not go in a much straighter line.

1338. Is that line carried on the right side of the river? Yes; I should think so.

1339. You think the south side is the best? Yes; on the south side you get a lot of agricultural country between Narrabri and Pilliga. It is really good timber country, which would be very valuable to all that district if it could be utilised.

1340. There is a considerable ironbark forest there? Yes; and it is valuable timber. There is also good pine for building purposes.

1341. Is ironbark usually grown in good country or bad country? It is not the best country where ironbark grows; but still the country of which we are speaking could be utilised for agriculture in almost any part of it.

1342. You think it is all good for agriculture? As far as my knowledge goes, I should say it was.

1343. What is the country like between Pilliga and Walgett? That is all what you might call pastoral country. You might grow wheat in some seasons.

1344.

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1344. Is the country good? The country between Pilliga and Walgett could not be beaten. I do not think there is richer pastoral country in the Colony.
1345. What is the country between Walgett and Goodooga, for instance? It is all first-class country.
1346. And out to Angledool? It is all first-class country until you get to Angledool.
1347. Then the whole of the country north and north-west of Walgett you class as good country? Yes, first-class country; you could not beat it. It consists mostly of myall and yarran plains.
1348. Where did the Walgett traffic always go to? Narrabri. Most of our traffic was from Narrabri out to Walgett.
1349. Did you ever have much traffic by the river? Yes; we had a lot of goods out by the river. We could not always get sufficient from Narrabri, because both in dry weather and in wet weather it is impossible for the teams to travel, there being no made road. It is a very hard road to travel in wet weather, and also in dry weather.
1350. What was the average cost per ton of transit between Narrabri and Walgett? I have paid from £2 10s. up to £25.
1351. Could you state what thing would be a fair average (say) for a period of five years? I believe carriage is down a lot now. I suppose, at the present time, £4 or £5 would be a fair thing between Narrabri and Walgett, except, of course, in wet weather, or under other specially adverse conditions. I owned teams myself, and I credited the teams with £12 per ton for the carriage of goods landed in my store, and £8 per ton for the carriage of goods the other way. Even at that price it did not pay, owing chiefly to the difficulty of getting feed for the horses. At that time I was paying 7s. a bushel for corn in Narrabri. It was in 1882 and 1883, which were exceptionally dry years.
1352. That was paid at that time to the ordinary carriers? They did it for about £12. A carrier taking his own team would just about make it pay at £12.
1353. The traffic between the coast and Walgett has always come by Morpeth and Newcastle? In my time we had to send lots of our goods round *via* Adelaide.
1354. That was when the river was navigable? Yes; when the river is navigable now there would be very little traffic going that way, because it is much more convenient to use the railway.
1355. If a railway were constructed as far as Walgett from Narrabri, do you think it would command, at all times, the entire traffic of Walgett and the surrounding district? Yes; as far as my knowledge of that district goes, if a railway were constructed to Warren, it would tap the Narran country and as far north as the Queensland border, which is only 6 miles from Angledool. Walgett is in the most suitable position as a centre for all that country.
1356. You think it would form a good distributing centre for all the country north and north-west? Yes; and the result would be that the Government would get thousands of pounds a year where at present it does not get a thousand farthings.
1357. If a railway were constructed to Walgett, what would be the position of the people of Walgett in the event of there being a navigable river—would they patronise the railway, or would they go by the river? I believe they would patronise the railway in preference to the river, because by the river the risk of loss is always great. I have sent goods by the river, on which I have lost hundreds and hundreds of pounds, the goods not having been fully insured. They used to charge very high rates of insurance, owing to the liability of steamers to be snagged in the river.
1358. If the charge by railway were £5 a ton, and if, on the other hand, the river were navigable for six months, and would convey the goods at a cost of £3 per ton, which means of transit, do you think, would be adopted? If I were there in business, I know which I should adopt. I should still stick to the railway.
1359. *Mr. O'Connor.*] Is the river always navigable? No.
1360. *Mr. Wright.*] You would stick to the railway, because you would recognise that one was a certain mode of transit, and the other was an uncertain mode? Yes.
1361. But, as a business man, would you not take advantage, if opportunity offered, to save a couple of pounds a ton freight on your goods? I had the opportunity for years, and never took advantage of it, unless in exceptional cases. I used the river several times, because we could not otherwise get the goods up. The goods, however, get so much knocked about when carried by the river that we always preferred the railway, or even teamsters.
1362. It has been stated to the Committee that, in the event of a good river Bourke would enter into active competition with the railway; that a great deal of stuff would, very likely, come *via* Bourke and then by river to Walgett? No doubt some goods would come that way, but not, I think, to such an extent as is imagined.
1363. You know that owing to the competition by river, particularly low rates are now charged by the railway? They are charging more by the river now than we could get teams to carry for.
1364. But particularly low rates are being charged on the railway to Bourke, a concession being made on goods over 100 tons in quantity, and a further concession as regards goods over 200 tons; is not this in view of the low rates on the river? It is cheaper to send goods that way than by the river. You cannot get goods from Adelaide to Bourke under £3 10s. a ton; it costs £1 10s. to get them up to the point where the river is navigable, and from there to Bourke as much as £2.
1365. What did you generally pay between Bourke and Walgett when there was a river? Never less than £3.
1366. If the Committee have been assured that it has been done for less than half that sum, you think they would not be justified in giving credence to the statement? I should not do so. They are now charging 25s. to Brewarrina, when the river is navigable. I paid that only about three weeks ago.
1367. It is double the distance from Walgett to Bourke than from Brewarrina to Bourke? Yes; and the risk is greater to Walgett than to Brewarrina.
1368. So you think that under any circumstances, if the railway were constructed to Walgett, it need not fear competition by the river from any source? Yes; I am certain of that.
1369. I suppose all that Narran country is held principally by New South Wales men? Yes, there are a few Victorians; but they are mostly New South Wales men.
1370. The interests of the bulk of the people there are identical with the interests of New South Wales? Yes.
1371. There would be no danger of their sending their produce to South Australia or Victoria, because they

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- they were South Australians or Victorians? I do not think so. I own a business at Goodooga, and have some interest there, and, as far as my knowledge goes, I think they would all favour Sydney.
1372. There is a proposal before the Committee to construct a railway from Byrock to Brewarrina;—if such a railway were constructed, what effect would it have upon the country north and north-east of Walgett—that is, the Narran country? If there were a railway, I should say that part of the Narran traffic should naturally go to Brewarrina; for instance, the people up towards Goodooga would naturally go to Brewarrina.
1373. Suppose there were a railway both to Brewarrina and to Walgett? Goodooga is as near to one place as to the other.
1374. In your opinion, which railway would command the largest portion of the trade? I think the railway to Walgett. I think Walgett would dominate the trade. Brewarrina would have a very good innings; but it would not be equal to Walgett.
1375. You think there would be a large trade in both places, but Walgett would have the larger? Yes; there would be no comparison.
1376. And do you think that approaching Walgett from Narrabri is the best route? I think so.
1377. It has been suggested that a line should be carried from Mudgee, through Coonamble, to Walgett, and that the distance by that route would be much less than *via* Narrabri; a route has also been suggested which would go from Warren to Coonamble and on to Walgett;—which of these do you think is the better one? The route straight through from Narrabri.
1378. You think that is the route which would serve the people best? I think so; because in time of drought it would be very important to be able to send stock to New England for grass and water.
1379. You think one of the advantages of constructing a line from the north-western line to Walgett would be that the people would have an opportunity of getting access to the table-lands of New England in dry seasons? Yes.
1380. Is there much business between the high lands of New England and the Walgett country, in the shape of horse-feed? I should think there would be if there were a railway.
1381. As a business man in Walgett, did you ever bring down horse-feed from the Hunter? Yes. I always got my maize in Maitland, and my lucerne in Singleton.
1382. Is there not a considerable trade in those commodities at Walgett? I have done a big trade in them in my time.
1383. If the cost of transit were cheapened by the construction of a railway, that trade would be largely increased? Yes; people would save all their horses, and perhaps also milking cows.
1384. The people of the district would get horse-feed and feed for their cows at a cheaper rate from the Hunter than by any other route? Yes.
1385. If Walgett were connected with Sydney *via* Mudgee, they would lose the advantage of the Hunter trade altogether? Yes.
1386. And they would have to pay more for forage than if they were connected *via* Narrabri? Yes.
1387. Am I right in assuming that the interests of a great number of people in that district are with Newcastle and the Hunter? Yes. According to my experience years ago, those people always traded with Newcastle and Maitland.
1388. Was not the country largely taken up in the first instance by people from the Hunter? Yes; most of them were from the Hawkesbury and the Hunter districts.
1389. So that the feeling of the people is in favour of a northern connection? Yes.
1390. And you, as a business man, with large experience, think that would be best in the interests of the people, and of the country generally? Yes; it would be best not only for the people of the district, but also for the Colony generally. I am sure that the railway if constructed would pay well after a little while. Just look at the stock that would be saved. About eighteen months ago, when I was up at Goodooga, I passed through a run on which the stock were rolling in fat, and when I returned in a few weeks time the change was lamentable—the place was destitute of food. If there had been a railway all that stock could have been sold and sent away.
1391. It could have been sent to Sydney? Yes.
1392. In your experience of the district, was it often subject to drought? Droughts used to occur sometimes.
1393. If the country is subject to drought, is not that fact rather opposed to your idea of agriculture being carried on? I do not think you could make absolutely certain of a good crop every year; but I think that if agriculture were carried on, there would be a change in the character of the seasons.
1394. You think that the cultivation of the soil would produce a climatic change? Yes; I believe so.
1395. What reason have you for believing that? Wherever there is any agriculture going on you do not see the dry times such as you see where the land is growing nothing. Go out on the plains where there are no trees, or any other growth, and you see that everything is dry and barren. But when you come near to a town, or even near to a station homestead, you see a difference.
1396. Do you think the turning up of the soil and its cultivation would have an effect on the rainfall? That has always seemed to be the case in my experience.
1397. So that you believe if this part of the country were opened up by railway, not only would the pastoral holders be benefited, but the effect would be to induce closer settlement and agricultural settlement? Yes; a station would pay better with 20,000 acres if there was a railway than it would with 50,000 acres without a railway.
1398. Would the construction of the proposed railway induce increased settlement? I should say it would, because all the country between Walgett and the Narran is really good. There is not finer country in the Colony for small settlement. When I say small settlement, I mean from 5,000 acres to 10,000 acres. Such a holding would be a nice little holding out there.
1399. There is a considerable number of homestead leases in the Narran country now, is there not? Yes.
1400. And the present occupiers are all holding them tightly? I think so.
1401. They find it pays them to take up the 10,000-acre blocks? It must pay them, or they would not continue to occupy them. The fact of their holding on to them is a proof that they are making money out of them.
1402. And you think there would still be increased settlement of that class if a railway were constructed? Yes; I think so.

- H. Nelson. 1403. If homestead selections of 2,000 or 3,000 acres were available, do you think land of that area would be taken up? I do not think that 2,000 or 3,000 acres is sufficient for a man out there.
- 8 Dec., 1897. 1404. But if your theory about agriculture is correct, could not the settlers combine the two forms of production? If a man could combine the two together perhaps it could be done. The Narran country is as good wheat-growing country as that in any other part of the Colony.
1405. It is all rich soil? It is all good soil.
1406. And in your opinion the rainfall is sufficient for the cultivation of wheat? I could not speak definitely as to the rainfall, but I think they could grow wheat there as well as anywhere else. It is, of course, no use attempting to grow wheat there now, because there is no sale for it.
1407. Have any of the squatters grown crops for their own use—hay, for instance? Yes; that has been done on Gingie and Dungalear, and also at Angledool. I myself grew oats about Walgett fifteen years ago.
1408. If you were told that 300 tons of splendid hay have been grown this year on Dungalear, would you think that extraordinary? No; I think it quite likely.
1409. You have seen evidence of this yourself in the district? On Gingie they have grown beautiful hay—wheaten hay.
1410. Has the wheat ever been allowed to ripen? I do not think so. The wheat would be of no use to them. They would cut it green for hay.
1411. As far as your experience goes, you think the country is quite capable of producing good wheat crops? Yes, I am sure it is.
1412. And the construction of a railway connecting Walgett with the railway system of the Colony would, you think, tend very largely to induce mixed settlement? Yes. The country there is equally as good, and even a good deal better, for growing wheat than the Narrandera country, which is supposed to be good wheat-growing country.
1413. The Committee are told that the country in the Narran district is some of the best in New South Wales? I do not think you can surpass it for growing anything.
1414. For producing either stock or cereals? Anything. Where you do not see a blade of grass, you will find flocks of sheep fat.
1415. Is the country fairly well improved, as far as water and fencing are concerned? The country could stand a lot more in the way of improvements. You have to go a good distance in these places to get water—14 or 15 miles.
1416. Have any bores been put down in the district for artesian water? I believe a bore was put down on the Narran since I was up there.
1417. Are you aware that a bore is being put down close to Euroka? I saw it, but it was not finished when I was there.
1418. I suppose the fact that artesian water can be got there will still further enhance the value of the country? I should think so.
1419. You think, in the event of a railway being constructed to Walgett, that the production of the district in sheep alone would be considerably increased? I do not think anybody can tell how much a railway would pay if it were constructed to Walgett, principally by reason of the quantity of stock that would be sent away.
1420. You think the carrying capacity of the country would be largely increased by the fact of there being easy communication? Yes.
1421. I suppose better provision would be made for water, so that the country would carry more stock? No doubt. There was one selector at Euroka who has use of water from the bore, who told me only a fortnight ago that he had 20,000 sheep.
1422. Does not the same thing apply to almost every station in the district;—have not the sheep largely increased of late years? Yes.
1423. Am I right in the supposition that country which fifteen years ago was supposed to be capable of carrying 20,000 sheep will now carry from 40,000 to 50,000 sheep? Country that was capable of carrying 50,000 sheep fifteen or twenty years ago will now carry 150,000 sheep.
1424. And you think there is room for still further increase by making additional water and other improvements? Yes. With smaller paddocks people could carry double the stock.
1425. As far as your knowledge is concerned of the capacity of the district to raise produce in the shape of wool and stock, it is not nearly at its maximum at the present time? No, it is not.
1426. And you believe that a railway under any circumstances, and with the existing state of affairs, would pay well? I am sure of it. I think if any district deserves a railway that district does. I speak as a disinterested person, and not because I have any interest there now. Railway communication is necessary, because in dry weather, and also in wet weather you cannot get anything up there.
1427. The fact is there is a beautiful fertile tract of country cut off almost from communication? They are cut off from civilisation, and everything else. At times you cannot get food there, and yet it is such a fine tract of country.
1428. *Mr. Fegan.*] Do you know the country well from Walgett to Coonamble? Yes.
1429. Having lived there a considerable time you know the views of a majority of the people of Walgett in regard to railway communication? Yes.
1430. The people of Walgett have been agitating for a railway for a long time? Yes.
1431. Were you ever on a deputation to the Minister on the subject? I do not remember positively, but I do not think I was.
1432. From time to time, extending over a long period, you have joined with other residents of the district in the request for railway facilities? Yes.
1433. Did you at any time say that one route would be preferable to any other? We always gave the preference to the Narrabri route.
1434. The majority of people of Walgett prefer that route? I think so.
1435. Will you tell us why the route *via* Narrabri would be preferable to a line *via* Coonamble? The reason is very easy to give. We have always thought in dry weather we should be able to get the stock away to New England for grass and water; and we could get our produce more cheaply from the Hunter River.
1436. I think you said you carried on squatting;—where was your land? Eighteen miles from Walgett on the road to Coonamble.

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1437. How many years is it since you followed squatting pursuits? We only followed it for about three years.
1438. What area did you hold? Only 32,000 acres.
1439. Why did you give up squatting? Because I retired from business. Owing to my wife's illness, I had to come to Sydney.
1440. Will the land between Walgett and Pilliga compare with the land between Coonamble and Walgett? The land between Walgett and Coonamble is very good for pastoral purposes—you cannot surpass it.
1441. How many sheep did you carry on your station of 30,000 acres? We carried about 22,000 once. It was too many for the improvements at the time.
1442. With more improvements, how many sheep would it carry—nearly one to the acre? Pretty well, I suppose, if it were well improved. In good seasons you cannot overstock the country between Coonamble and Walgett, and between Walgett and the Narran. You could put five sheep to the acre on it in good seasons.
1443. Do you know the country between Narrabri and Pilliga? Yes.
1444. Are there many belts of ironbark there? I believe so. I have never been all through the bush.
1445. What traffic could be relied upon to bring in a return for the expenditure on the railway? The traffic would consist chiefly of wool and stock being taken to the market, and of goods being brought back to the district. A lot of country would be opened which is now lying dormant.
1446. Do you think an extension of the railway to Walgett would develop that country and increase settlement, and thus be the means of finding homes for a large number of people? Yes.
1447. In answer to Mr. Wright, you said you did not think the river would come into competition with the railway? Not if it is not snagged. If the Government snagged the river, and constructed weirs, so as to keep water in the river, it might come into competition with the railway. But under present conditions there would be no such competition.
1448. How long does it take a barge or boat to go from Walgett to Brewarrina? It would take about three days to go from Walgett to Brewarrina, and about a fortnight from Brewarrina to Walgett, because in the latter case you would be travelling against the stream.
1449. So that in dealing with this railway proposal you think there is no necessity to consider the question of river competition? I think not.
1450. Do you know if any of the people have tried to grow fruit in the Walgett district? I know that some very fine grapes have been grown there, and with proper management I have no doubt other fruits could be grown. A Frenchman who had a garden across the river did very well growing fruit. The Chinamen there grow fruit well, and produce some beautiful grapes. Europeans could do the same if they liked to take the trouble. In that climate the fruit would be more forward than in localities about Sydney.
1451. Has there been any attempt at wine production in the district? No.
1452. *Mr. Roberts.*] I gather that from your intimate knowledge of this part of the country, and from the hardships which the people there have had to put up with for some years past, you have come forward to urge the granting of railway communication to Walgett? Yes. I was asked by the Walgett people if I would have any objection to do so.
1453. Can you recollect when the first agitation for railway communication with Walgett took place? I do not remember exactly, but it must have been about ten years ago. The railway to Narrabri was finished just before I left. We were among the biggest customers of the railway in the northern district.
1454. For what radius did you supply goods to the settlers? I sent goods across to the Queensland border.
1455. Where did you get your goods from when you were in business at Walgett? From Sydney and from Adelaide. When the weather was wet I had to get goods from Adelaide. These goods came by river. I could not always get the goods from Sydney. I have had goods lying at the railway station in Sydney for four or five months. I have not been able to get teams to take them up, and I have had to order another lot to go round by Wallerawang.
1456. Was the railway at that time extended to Narrabri? No; it only went to Murrurundi. In wet weather I have had goods lying at Narrabri for months. The roads are impassable in wet weather, you might say, almost from Narrabri to Walgett.
1457. What rate of insurance would you pay on the river? Two per cent.
1458. When you were in business at Walgett did you transact your business principally with Newcastle or Maitland or with Sydney direct? With Sydney, except as regards forage and flour. I could always buy 5 or 10 per cent. cheaper in Sydney.
1459. Could you describe the country along the proposed line from Narrabri to Wee Waa? That, I suppose, would be mostly pine country; but there is a portion near the Namoi which is beautiful country. If a railway were constructed there would be a lot of traffic between Narrabri and Wee Waa.
1460. What is the country like between Wee Waa and Pilliga? There is some rough country; but I saw a beautiful crop of wheat or oats in a selector's paddock. It was only a few acres; but it showed what could be grown if there was sufficient inducement.
1461. And on to Walgett? It is all good pastoral country.
1462. Where does the black soil commence? Fifteen miles from Pilliga.
1463. Then the land improves as you approach Walgett? Yes.
1464. *Mr. Lee.*] You advocate the line to Pilliga as the first extension to Walgett? Yes.
1465. You hold that it should go to Walgett? Yes.
1466. Because you believe that Newcastle and Sydney are your natural ports? Yes.
1467. Pilliga is about half-way between Narrabri and Walgett? Yes.
1468. You told us that you never paid less than £3 a ton by the river from Bourke to Walgett? Not in my time.
1469. You will see that in considering this railway question the river as a probable opponent of the railway is an important factor? Yes.
1470. I want to find out from you as accurately as possible—first, what is the charge by river for wool per ton from Walgett to Bourke? I really do not know; I have not been up there lately.
1471. But in your own time? I have told you that I have sent wool from Brewarrina to Bourke, but not from Walgett.
1472. What was the freight from Brewarrina to Bourke? £1 5s.
1473. That was the lowest? That was the lowest they charged us.

- H. Nelson. 1474. And what would be a fair rate to put on for the distance from Brewarrina to Walgett—another 25s.? Yes, I should think so.
- 8 Dec., 1897. 1475. Do you think that £2 a ton from Walgett to Bourke by river would be a fair and reasonable charge? I really cannot speak in regard to the present time; I have not been living there for the last eight years.
1476. What would be the value of a ton of greasy wool? We always insured a bale of wool at £10 on the river.
1477. It would be at least 6d. a lb., which would be £56 per ton, and the insurance on that at 1 per cent. would be £1? Yes.
1478. And you think that the river freight on wool from Walgett to Bourke at £2 a ton would be a fair thing? I know that they charge about 25s. a ton from Brewarrina; I do not know anything about Walgett.
1479. But suppose the river were locked, and they had a good river all the year round, do you think they would be able to carry goods from Walgett to Bourke for less than 25s. a ton? No.
1480. Do you think they would carry them for 25s. a ton? No.
1481. For 30s.? They might carry goods to Bourke now at certain times for 30s. for all I know, because they might take wool from the stations when there was an empty steamer, and earn a £10-note that way, for all I know.
1482. Will you follow me in these figures: River freight from Walgett to Bourke, 30s. per ton; insurance, £1; railway carriage from Bourke to Sydney, £4; total, £6 10s.;—in your opinion, it could not be done for less? No.
1483. Now take the other route; it is estimated that wool will cost 6s. 5d. a ton to be conveyed from Pilliga to Narrabri by rail; therefore, if the line is carried to Walgett, the freight will be 12s. 10d. from Walgett to Narrabri; the rate for wool from Narrabri to Sydney at the present time is £2 13s., making a total of £3 5s. 10d. per ton;—if the line is made to Walgett, and the wool can be conveyed direct to Sydney for £3 5s. 10d. per ton, which is the Railway Department's own estimate, do you think there is any probability of the river competing against the railway when the cost by that mode of carriage would be £6 10s. per ton? I should not think so.
1484. It is proposed to charge £1 a ton on general goods from Narrabri to Pilliga, and 6s. a ton on goods of a special class, so that if you take a ton of each the carriage will cost you an average of £1 6s. per ton. If the line is carried to Walgett the freight will be double that amount, viz., £2 12s. per ton. If the business people of Walgett can get their goods carried from Narrabri in all seasons, and when they want them at £1 6s. per ton, are they likely to trust to the uncertainty of the river? No; they would prefer to pay £2 12s. by rail than £1 6s. by the river.
1485. Would they be prepared to pay a higher freight if necessary? I think they ought to.
1486. Do you think, for instance, that on general goods £2 a ton from Narrabri to Walgett would be too high? No.
1487. You are clear as to the fact that Walgett is the point where the trade must be fought for with the railway as against the river? Yes.
1488. A lot of the trade would come in from the other side of the Barwon as well as from the northern side of the Namoi? Yes; Walgett is the most central point.
1489. If the railway rates from there to Sydney were as high as those from Walgett by river to Bourke, and thence by rail to Sydney, would not the people prefer to send their goods the more certain and quicker way—by railway, than they would by the longer route? Of course they would. Goods are always worth a little more to go straight by the railway, because they are not knocked about.
1490. You say you were up in this part of the country from 1873 to 1889? I was there since 1865.
1491. Were you there in 1886? Yes.
1492. Do you know that the river was navigable for 222 days in that year? I do not remember. I know it was navigable for a little while.
1493. We will assume that those figures are correct, and that for the period mentioned there was free access for all steamers up and down the river, do you happen to remember whether the river freights were cut down very much that year? I am sure they were not, for we had to get our goods *via* Narrabri.
1494. Then a good river has never made any difference in the rates? Not much, because it costs so much to Bourke. It costs £41 per truck for the goods to go to Bourke; it used to cost more.
1495. Then, in consequence of the extra railway carriage to Bourke you were compelled to bring your goods round by Narrabri, and thence by dray? Yes.
1496. Given two things—a railway to Walgett and a year when there is a splendid river, navigable three-fourths of the year, do you think it is likely that steamboat proprietors under those conditions would reduce their rates as to take the bulk of the freight away from the railway? They could not reduce them sufficiently to have that effect. If a man has to send goods from Sydney to Bourke, and from Bourke by steamer, it can only make a difference of a few shillings.
1497. It is very clear they cannot send the wool that way, because at the lowest computation it would cost £6 10s. as against £3 5s. 10d., and, therefore, you are clearly of opinion that it would be impossible to get the goods that way—I mean, commercially impossible? Yes, it would not pay.

THURSDAY, 9 DECEMBER, 1897.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.
 The Hon. JAMES HOSKINS.
 The Hon. CHARLES JAMES ROBERTS, C.M.G.
 The Hon. WILLIAM JOSEPH TRICKETT.
 The Hon. DANIEL O'CONNOR.
 HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.
 JOHN LIONEL FEGAN, Esq.
 THOMAS HENRY HASSALL, Esq.
 GEORGE BLACK, Esq.
 FRANCIS AUGUSTUS WRIGHT, Esq.
 FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

John Hannon Murphy, sworn, and examined:—

1498. *Mr. Hassall.*] You are resident in the country lying between Narrabri and Millie, I believe? J. H. Murphy.
9 Dec., 1897.
 Yes.
1499. How long have you resided there? I selected in 1880. I was in the district prior to that for about ten years.
1500. So that you have a knowledge of the country for the last twenty-seven years? Yes.
1501. I believe you have carried on a good deal of work as a contractor? Yes; I was for twenty-four years a contractor under the Government of this Colony. I worked on the Southern line and made a great portion of the line on the Zig-Zag—as a sub-contractor.
1502. You have heard of the proposal to run a railway from Narrabri to Pilliga on the south side of the Namoi? Yes.
1503. Do you think it would be advisable to construct a railway from Narrabri to Pilliga, allowing it to stop there? In preference to the line from Narrabri to Pilliga, I would recommend the construction of a line which has been surveyed from Woolabra to Collarendabri, and also a line from Mudgee to Walgett *via* Coonamble, these two lines forming a junction at Walgett. The greater portion of the country in the vicinity of Pilliga is scrub country and valueless. The line from Woolabra, even if it went only to Bulleroi, where an artesian bore has been put down, would embrace a large district where there is a great quantity of wool and valuable stock. This country is at present deprived of any means of communication. In the district where I am living we have neither a road nor a railway. The Government have taken away the travelling stock route from Boggy Creek to Narrabri, and the syndicate into whose possession it has gone has not left a blade of grass on it during the last couple of years. I have good sheep now and cannot send one of them to Narrabri. I have had to boil sheep down—sheep that would sell well in Sydney.
1504. Do you know the country between Mudgee and Coonamble and between Coonamble and Walgett? Yes; I travelled it thirty years ago. It is a magnificent piece of country, down along the banks of the Castlereagh. If the line from Woolabra were constructed there would be no necessity for the Pilliga line, and the line going from Woolabra to Collarendabri would pass through the centre of magnificent country, every acre of which is paying a yearly rental. I am but a selector and my rent to the Government is about £500 a year. A clip of about 500 bales of wool belonging to my son and myself is being sold to-day by Hill, Clark and Co.
1505. If a railway were extended from Woolabra, on the Narrabri-Moree extension, towards Collarendabri it would not only open up a large extent of valuable country along the route, but it would also serve a large extent of country lying out towards the Narran, beyond Collarendabri? Unquestionably so. It would go through good land all the way with not a single acre of scrub on it.
1506. Do you think there is any prospect of settlement taking place on the country between Narrabri and Pilliga? No, not as regards the greater portion of it; unless the Government were to send a number of unemployed to clear and scrub the land, which in its present condition is valueless.
1507. Having had such long experience in that part of the country, I presume you have seen a great alteration take place there from the time you first went to the district twenty-seven years ago? Yes.
1508. At that time was not the country nearly all in cattle stations? There was hardly a sheep in the district when I selected there.
1509. And no selections? I believe I was the first selector in that part of the country.
1510. From cattle stations the country has been turned into sheep runs? Yes. In the district in which I live you could not get an acre of land; it is all taken up.
1511. The country is now occupied by selectors holding considerable areas of land, and grazing large numbers of sheep? Yes; it is all thoroughly stocked.
1512. A railway constructed through that country would serve a very large district, give facilities to a very large number of selectors, and there would be every probability of its paying expenses? Yes. Very recently, when land was thrown open at Bulleroi, every acre was taken up. The number of applicants was in excess of the area available.
1513. If it were decided to take a line from Narrabri to Pilliga, and on to Walgett, which would be the better side of the river for the railway to go as regards settlement and traffic? I think the northern side. That would be the only chance there would be of its being a service to the good country, because on the southern side the country is not so valuable. A vast amount of the country there is scrubby.
1514. You know the bore which has been put down at Bulleroi? Yes.
1515. There is a splendid flow of water there, is there not? Yes, very good.
1516. The fact that water can be obtained by artesian bores all over that part of the country, goes to prove that it is splendid country for people to settle upon for the purpose of carrying on pastoral pursuits? Unquestionably. But the bores should not be put on the edge of a creek, and the water allowed to run into the creek. The site of the bore should be on elevated ground, so that the water could be distributed over the surrounding country.
1517. *Mr. O'Connor.*] How long have you been in the country? Since 1854.
1518. Have you resided principally in the interior? Yes, principally, since 1860.
1519. You know Narrabri? Yes.

1520.

- J. H. Murpley. 1520. And you know, from your personal knowledge, the land between Narrabri and Walgett? I do not know all the land to Walgett. I know the country as far as Bullaroi. I know from the surveyor, and from others who are familiar with the country, that a line from Woolabra to Collarendabri would open up a very large area of magnificent land. There would be a large traffic to the railway in wool, sheep, and cattle. At present I cannot send my fat sheep to market.
- 9 Dec., 1897. 1521. Is the land suitable for agriculture or for pastoral purposes? It would be adapted for agriculture if we availed ourselves of the seasons. If wheat were sown in March, so that it would ripen before the excessive heat occurred, I believe that the crops would yield from 30 to 50 bushels per acre.
1522. Have 30 bushels to the acre been obtained? Yes; a farmer between Millie and Warialda, named Hunt, told me he had about 100 acres of wheat which he fully believed would go from 45 to 50 bushels to the acre.
1523. Would you say it would be possible to produce so large a yield as 35 bushels to the acre? I believe the land between Narrabri and Moree would yield between 35 to 40 and 45 bushels to the acre. It is heavy loamy land; it will last for years.
1524. What is the distance from your homestead to the nearest railway station? About 20 miles.
1525. What is the name of the railway station? Woolabra.
1526. In what land division is your place situated? In the Central Division.
1527. What do you pay to carry your produce to the railway? I carry it by my own teams. The other day for two loads of wool from my place to Narrabri, I paid 1s. 3d. a cwt.
1528. What is the distance? About 40 miles.
1529. What area of land do you hold? About 18,000 acres, consisting of *bonâ fide* selections.
1530. Having lived a considerable time in the district, and knowing the country so well, would you say whether you are in favour of the construction of the proposed railway from Narrabri to Pilliga? I think it would be a great mistake to construct a railway through such a fearful piece of country. I should advocate, as I said before, a line from Woolabra to Collarendabri, and eventually on to Walgett, and also a line from Mudgee through Coonamble to Walgett. These two lines would pass through magnificent country, leaving the scrub and inferior country in the vicinity of Pilliga in the middle.
1531. Is the country between Woolabra and Collarendabri suitable for pastoral or for agricultural purposes? Owing to the excessive heat it is better adapted for pastoral purposes; but I have no doubt that when I am dead and gone there will be thousands of acres of wheat grown in that country. The soil is very fertile. I have myself grown magnificent vegetables.
1532. What distance are you from Narrabri? About 36 miles.
1533. Is the road pretty good? We have no road; the Government would not lay out £1 on the road.
1534. *Mr. Fegan.*] You know Pilliga very well? Not very well. I have never lived there, but I have passed through Pilliga several times.
1535. You say that the country between Woolabra and Collarendabri is of better quality than that around Pilliga? Unquestionably.
1536. How do you know that if, as you say, you do not know Pilliga very well? I know the district. Pilliga itself is a very small place.
1537. You know the route to Collarendabri exceedingly well? Not further than Bullaroi. But my son tells me it is all magnificent country, and the surveyor also told me.
1538. You have never been from Pilliga to Walgett? No; I was never in Walgett.
1539. What is the nearest you have been to Pilliga? I have been through the district. There is only one public-house in Pilliga.
1540. How far does the district of Pilliga extend? It is 25 miles from Narrabri to Wee Waa, and 70 miles from Narrabri to Pilliga, so you can take the balance between the two.

FRIDAY, 20 MAY, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Narrabri to Pilliga.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and further examined:—

- H. Deane. 1541. *Chairman.*] You wish to make a statement to the Committee? With regard to the approach to Collarendabri, it appears that this is approximately the position: Over fairly good country—in this vicinity—where there will be no trouble with water, you may estimate the line for practical purposes as costing £2,300 per mile. The cost of carrying the line into Collarendabri without these waterways, in a fairly good country, would be about £25,300; but my estimate reaches £47,000. Therefore, the extra cost of approaching Collarendabri, due to water, is between £22,000 and £23,000. These figures must be regarded as approximate, but I believe they are a fairly correct approximation. With regard to placing lines under flood-level in country rarely visited by heavy rainfalls, such as that under consideration, great caution should be exercised. There are places where channels have to be crossed, and if the bridges there are built too low, there is great danger of their being entirely destroyed.
- 20 May, 1898.

Charles Edward Rennie, Chief Draftsman, Department of Lands, sworn, and further examined :—
 1542. *Chairman.*] You desire to hand in a statement? I beg to hand in the following statement:—

C. E. Rennie.
 20 May, 1898.

Schedule of areas in connection with line Narrabri to Walgett.		Acres.
Alienated land		1,231,100
Reserves		523,600
Settlement and homestead leases		380,300
	(Includes 192,300 acres, homestead leases, Western Division.)	
Crown lands		773,800
Tenure of Crown Land.		
Leasehold areas, expiring 1898-1900.....		393,400
	(Includes 78,700 acres, Western Division, expiring 1918.)	
Held under occupation license		258,800
Untenanted.....		126,600
Areas in connection with line, 315 miles to Collarendabri, outside limits of line Narrabri to Walgett.		
Alienated land		392,000
Reserves		105,250
Settlement and homestead leases		251,680
	(Includes 167,160 acres, homestead leases, Western Division.)	
Crown lands		201,050
Tenure of Crown Land.		
Leasehold areas, Western Division, expiring 1918		149,360
	(Includes 18,560 acres, Central Division, expiring 1898-1900.)	
Held under occupation license		51,690
Untenanted		Nil.
Areas in connection with land common to lines from Narrabri to Walgett and Narrabri to Collarendabri.		
Alienated land		864,200
Reserves		305,400
Settlement and homestead leases		145,000
	(Includes 13,200 acres, homestead leases, Western Division.)	
Crown lands		493,500
Tenure of Crown Land.		
Leasehold areas, expiring 1898-1900		156,600
	(Includes 12,400 acres, Western Division, expiring 1918.)	
Held under occupation license		210,300
Untenanted		126,600

NOTE.—Areas quoted as under lease and occupation license do not include reserves within the holdings.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

Railway from Narrabri to Pilliga.

APPENDIX.

A.

[To Evidence of R. R. P. Hickson, Under Secretary for Public Works.]

PRECIS OF PAPERS.

In October, 1882, Mr. Dangar, M.P., presented a petition to the Legislative Assembly urging the construction of a line to Walgett, as that town was considered the head of the important Darling River traffic, with a large and increasing population, while the number of live stock was approximately 3,000,000 sheep, 200,000 head of cattle, and 10,000 horses. Walgett, the petitioners also pointed out, was the natural output of nearly the whole of the north-western portion of the Colony up to the boundary of Queensland, &c.

Later on in August, 1884, a deputation consisting of Messrs. Brunner, Fletcher, Melville, Gill, Burns, Luscombe, Ellis, and Dangar, Ms.P., waited upon Mr. Secretary Wright and presented numerous signed petitions from residents of West Maitland, East Maitland, Morpeth, and surrounding districts.

Amongst other reasons it was urged that as the trade had emanated from and had always been conducted with the towns on the Great Western Railway and the Port of Newcastle, the connection should be made in that direction. Mr. Secretary Wright in reply stated he attached great weight to the opinions of the members of the deputation, supported as they were by so many big petitions. The petitions, he stated, put the matter very fairly when they said the Government should construct a line which would prove the greatest benefit to the greatest number.

In May, of 1886, another deputation, accompanied by Messrs. Cramsie, Collins, Fletcher, Brunner, Ryrie, Gould, and Creer, Ms.P., waited upon the Minister. The representations previously urged in favour of this extension were again put forward, and the deputation asked that the Government would submit the line for approval of Parliament.

Mr. Lyne in reply stated he would use every endeavour to have this railway included in the first railway proposals it was intended to submit to the House. He was strongly in favour of it, both as a means of developing the district and for providing a road for the carriage of stock, as by such a means of transport between the table-land and plains, residents would, in times of drought, be able to move stock from places where there was no feed to districts where grass was obtainable.

Mr. Wright also received a deputation on 14th July, 1885, from Messrs. H. E. Cohen (Minister for Justice), H. Levien, W. Coonan, T. G. G. Dangar, J. Gould, J. F. Burns, H. H. Brown, Ms.P., and others.

Mr. Brunner, in introducing the deputation, said they were there for no local purpose as could be seen by the representative nature of the deputation, and they desired to give effect to the opinion of Parliament that it was necessary any line to Walgett should go from Narrabri, and they wished the Government to propose this extension, and if desirable a further extension of the Western line from Dubbo to Coonamble. The agitation in favour of such lines was no local movement, but was general all over the western district. The trade had always been transacted between Newcastle and the northern towns and the far north-west, but the line proposed last session, viz., Mudgee to Walgett, would disarrange all these commercial associations and divert the trade from the channel along which it had always passed.

Mr. Secretary Wright in reply stated that he took the full blame, if any, of submitting the Mudgee to Walgett line to Parliament, and promised to submit the Narrabri-Walgett route to his colleagues.

In September of the following year, 1887, a deputation from representatives of the northern districts accompanied by Messrs. Thompson, Wilkinson, Hassall, Ellis, Brown, and Fletcher, Ms.P., again urged the construction of the line. Mr. Sutherland promised to submit the matter to his colleagues, but pointed out that there were three alternative routes submitted which had to be carefully considered before dealing with the matter.

The matter was not revived until October, 1895, when a deputation introduced by the Hon. J. N. Brunner, and Messrs. Fegan, Watkins, Gillies, Dacey, Wheeler, Edden, Dick, and Piddington, Ms.P., and others, waited upon Mr. Secretary Young and urged the submission of the line to the Public Works Committee. Mr. Dick said he knew there were rival routes, but believed the evidence was in favour of the line being taken from Narrabri. Newcastle was greatly interested in the matter as the products of the districts to be served by the line should actually go to that part. Mr. Brunner stated he knew the district thoroughly, and could say there was no richer belt of country in Australia than that lying between Narrabri and Walgett. The Mudgee to Walgett route could not compare with it as regards productiveness, and would be much more costly to construct.

Mr. Secretary Young in reply said, with regard to the remarks which had been made as to the centralisation of trade in Sydney, there was no desire on his part, nor on the part of the Ministry, to divert any of the traffic to which Newcastle was justly entitled. But when they came to talk about trade going to its natural port, it would seem, on looking at the map, that the natural port of the district might be considered to be Grafton. He would, however, gather the best information obtainable to find out which route in the interests of the whole country—without giving any preference to either Sydney or Newcastle—was the best one to adopt.

In July, of 1896, Mr. Young promised a deputation that he would have enquiries made with reference to continuing the line from Narrabri-Pilliga.

The last deputation on the subject waited on Mr. Young at Wee Waa, in April last, and consisted of Messrs Collins and Gillies, Ms.P., and several other gentlemen. It was pointed out that the land between Narrabri and Walgett, over 1,000,000 acres, had been valued at from £1 to £1 18s. per acre by the taxation officers, and other arguments already mentioned were put forward.

Mr. Young, in reply, stated that with reference to the requirements of Walgett he had often said Walgett ought to be connected with a railway system, and that, so far as he was concerned, he would do his best to bring it about, and the opinion was expressed before he had such an intimate knowledge of the trade as he has now, but fortunately or unfortunately the residents of Walgett and district possessed two means of conveyance, and when the rivers were up, and they could

send their produce to other ports of shipment and evade the ports of Sydney or Newcastle, then the stuff instead of going over the lines would be sent down by river to Melbourne or Adelaide. The deputation could readily see the great difficulty there was in bringing about the construction of a line of railway to a point like this when confronted with the fact that for possibly three years out of every four practically nothing would be carried from Walgett. It was all very well to say the Mudgee-Walgett line would cost more, but they must remember that making the railway through the greater mileage would certainly not only serve the people of Walgett and Coonamble, but would also serve the people in those portions of the colony passed through. He was not going to say whether he was in favour of one or the other, for there were very serious considerations to be gone into.

B.

[To Evidence of H. Deane, Engineer-in-Chief for Railway Construction.]

Railway Construction Branch, Public Works Department, Sydney, 1st November, 1897.

I AM directed by the Engineer-in-Chief to forward herewith a statement of the length, cost, and distance from Sydney of the various railway routes to Walgett.

The Secretary, Public Works Committee.

E. HUNGERFORD.

RAILWAY CONNECTION WITH WALGETT.

STATEMENT of lengths, cost, &c., of various routes.

Route.	Miles.	Cost.
Narrabri to Walgett	114-0	£ 262,200
Nevertire to Warren*	12-13	32,700
Warren to Coonamble.....	63-33	150,000
Coonamble to Walgett	68-0	176,800
	131-33	326,800
Dubbo to Coonamble, <i>via</i> Gilgandra	93-45	207,285
Coonamble to Walgett	68-0	176,800
	161-45	384,085
Mudgee to Coonamble	147-0	478,936
Coonamble to Walgett	68-0	176,800
	215-0	655,736

* Under construction.

THE distance to Walgett is as follows:—

Route.	Distance in miles.
Newcastle to Walgett	366
Sydney to Walgett <i>via</i> Newcastle	464
” ” ” Nevertire and Coonamble	485
” ” ” Dubbo	440
” ” ” Mudgee	405
” Warren	353

1 November, 1897.

H. DEANE,
Engineer-in-Chief.

APPENDIX.

3

C.

[To Evidence of J. Clarke.]

MEMORANDUM showing the Rates of Postage for transmission of Newspapers charged in each of the Australasian Colonies.

Name of Colony.	Inland.	Intercolonial.	United Kingdom and Foreign Countries.
	Each newspaper.	Each newspaper.	Each newspaper.
New Zealand	$\frac{1}{2}$ d.	To New South Wales, South Australia, Tasmania, Victoria, Western Australia, and Fiji, 1d. To Queensland and British New Guinea, for the first 4 oz., 1d.; every succeeding 2 oz., $\frac{1}{2}$ d.	For the first 4 oz., 1d., and for every succeeding 2 oz., $\frac{1}{2}$ d.
Queensland	If printed in Queensland, for every 10 oz., $\frac{1}{2}$ d.; if not printed in Queensland, for every 10 oz., 1d.	For every 2 oz., $\frac{1}{2}$ d.	
South Australia	Not exceeding 10 oz., $\frac{1}{2}$ d.; exceeding 10 oz. but not exceeding 20 oz., 1d.	To New Zealand, New South Wales, Tasmania, Victoria, Western Australia, and Fiji, for the first 10 oz., $\frac{1}{2}$ d.; every succeeding 4 oz., $\frac{1}{2}$ d. To Queensland and British New Guinea, for every 2 oz., $\frac{1}{2}$ d.	
Victoria	$\frac{1}{2}$ d.	To New Zealand, New South Wales, Tasmania, South Australia, Western Australia, and Fiji, for every 10 oz., $\frac{1}{2}$ d. To Queensland and British New Guinea, for every 2 oz., $\frac{1}{2}$ d.	
	If printed in the Colony and posted within seven days of the date of publication.	If printed in the Colony, but posted after seven days from the date of publication, or printed (wholly or partly) out of the Colony.	
Tasmania	Free (except those posted in any city, town, or district for delivery by letter-carrier within such city, town, or district, which are charged $\frac{1}{2}$ d.)	$\frac{1}{2}$ d.		For the first 4 oz., 1d., and for every succeeding 2 oz., $\frac{1}{2}$d.
Western Australia	For the first 10 oz., free; every succeeding 10 oz., $\frac{1}{2}$ d. (except those posted in any city or town for delivery within the boundaries of such city or town, which are charged 1d. per 10 oz.)	For every 10 oz., 1d.	
New South Wales	For the first 10 oz., free; every succeeding 10 oz., $\frac{1}{2}$ d. (except those posted in Sydney for delivery within the boundaries of the city, which are charged 1d. for the first 10 oz. and $\frac{1}{2}$ d. for every succeeding 10 oz.)	For every 10 oz., $\frac{1}{2}$ d.	
		To New Zealand and Western Australia, if posted within seven days of the date of publication, free; posted after seven days from the date of publication, $\frac{1}{2}$ d. To New South Wales, Victoria, South Australia, and Fiji, for every 10 oz., $\frac{1}{2}$ d. To Queensland and British New Guinea, for every 2 oz., $\frac{1}{2}$ d.	

C1.

STATEMENT showing the Amounts paid in the other Colonies for conveyance of Mails by Railway.

Colony.	Year.	Amount.
Queensland	1896	£ 40,000
New Zealand	1896	14,539
Victoria	1896	56,383
South Australia	1895	15,352
Western Australia—		
Government Railways	£4,004	8,804
Midland Railway	1,200	
Great Southern Railway	3,600	

NOTE.—In the case of Queensland, the amount paid is a fixed annual sum. In the other Colonies the amount varies with each year.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

SECTIONAL COMMITTEE.

RAILWAY FROM NARRABRI TO PILLIGA.

REPORT.

THE Sectional Committee appointed on the 22nd April, 1893, to inspect, take evidence, and report with reference to the proposed Railway from Narrabri to Pilliga, have the honor to report to the Parliamentary Standing Committee on Public Works, as follows:—

The Sectional Committee, consisting of Mr. Thomas Thomson Ewing, M.L.A., the Hon. Charles James Roberts, C.M.G., M.L.C., Mr. John Lionel Fegan, M.L.A., and Mr. Thomas Henry Hassall, M.L.A., left Sydney on Saturday, 30th April, and arrived at Newcastle the same day. Having examined witnesses at Newcastle, the Sectional Committee proceeded to Narrabri, and, accompanied by Mr. Charles McDonnell Stuart, Supervising Engineer, Railway Construction Branch, Department of Public Works, journeyed over the route of the proposed railway to Pilliga, taking evidence *en route* at Wee Waa. Leaving Pilliga, the Sectional Committee proceeded, by way of Keeleendi and Come-by-Chance, to Walgett, where further evidence in reference to the proposed railway was taken. Subsequently, the Sectional Committee travelled to Collarendabri and Woolabra, and after taking evidence in reference to the proposal to construct a line between those places, returned to Sydney on 19th May.

It is usual, in dealing with any work referred to the Committee for consideration, to consider its merits without special reference to any other work; but in the two cases which have been referred to the Sectional Committee for inquiry, it was apparent to the Full Committee, before the local investigations took place, that the two works might possibly merge into one. This view was strengthened as the Sectional Committee obtained fuller information. They therefore determined to consider the question of the development of the country which possibly would be affected by a line from Narrabri to Pilliga, and from Woolabra to Collarendabri, as being so intimately connected, that it was possible to deal with the whole matter in a single report. This report will be common to the two proposals, and will also be much more comprehensive than two reports which would lose weight by endeavouring to deal with the development of country by different proposals which really belong to the same area.

The Sectional Committee make this explanatory note before dealing with the matters under consideration.

The distances from Sydney by the various routes to Walgett and Collarendabri have already been placed before the Full Committee. The distance to Newcastle is also in the evidence given before the appointment of the Sectional Committee. These distances taken into consideration with the fact that the trade relations of the whole of the area of country are with the Newcastle district, and that a proportion of the wool now goes over-sea from Newcastle, justify the Sectional Committee in coming to the conclusion that the approach should be with the North-western line and not with the Western.

The country which will be developed by the two lines previously mentioned is, generally speaking, bounded on the east by the Moree-Narrabri line, and its extension towards Newcastle; on the north by the limits of such traffic as may reach

reach Collarendabri, or any portion of the line from there to Woolabra, in preference to Moree; that area of country extending beyond Angledool to the Queensland border, which will probably reach Collarendabri and Walgett in preference to Brewarrina, were a railway constructed to the latter place, and that portion of the Colony of Queensland the traffic from which would find its way, *via* Angledool, Mogil Mogil, or any routes to the north, to Collarendabri or Walgett. On the south its limits would be first affected by the proposed railway to Coonamble.

In order not to over-state the area under consideration, the Sectional Committee have, for the purposes of the inquiry, inferred that it is possible that railways will be extended as far as Coonamble and Brewarrina within a reasonable time. The Sectional Committee desire to lay down the limits of the country with regard to which there is no doubt better accommodation will be given by termini at Walgett and Collarendabri than by any other scheme. The Moree-Narrabri line will serve all areas lying, say, 25 miles west therefrom. The Coonamble line will possibly draw the traffic half-way between that place and Walgett. Angledool traffic will probably, under all circumstances, reach Collarendabri or Walgett. Weetalibah and Goodooga may, however, be considered debatable country from which it is possible some produce will find its way to Brewarrina.

The recent *Gazette* notice published by the Queensland Government on 11th December, 1897, removes the £2 10s. duty on wool shorn across the border from within a distance of 30 miles therefrom.

The Sectional Committee believe, after considering the cost of carriage and railway freight, taken into consideration with the relative importance of Brisbane, Sydney, and Newcastle as ports, that in all probability the whole of the wool grown on this 30-mile limit, and also most of the stock and cattle depastured thereon, will find its way to New South Wales. It is probable that the limits of the influence of Collarendabri and Walgett, if railways were extended to them, would require to be fixed, perhaps, another 30 miles to the north. A limit, therefore, of 60 miles north of the New South Wales boundary on the north, to midway between Walgett and Coonamble, say about Combolong on the south, on the west to midway between Walgett and Brewarrina, and within 25 miles of the Moree line on the east, embraces the area under consideration.

That portion of this area within the Colony of New South Wales, north and south of the Namoi, and west of Come-by-Chance, may be regarded as first-class grazing country, large portions of which will, probably, in the near future, be placed under cereals. Over the Queensland border there is a large area of inferior country, but still a territory 60 miles wide, which will supply a very considerable amount of produce that will aid in contributing to the commercial basis of lines having their termini at Collarendabri or Walgett.

West from Narrabri and extending beyond Pilliga—separated from the river by a narrow tract of good land—and extending west towards Come-by-Chance, and passing south therefrom, and reaching almost from the road from Come-by-Chance to Coonamble, and then extending south-east towards Coonabarabran, is a large tract of country known as The Scrub. Although there is little doubt that there are portions within these limits which can be utilised either for agricultural or pastoral pursuits, still there is no probability of there being any extensive demand for them until areas which can be more readily cultivated and brought more cheaply under cultivation are fully utilised. The Sectional Committee do not dismiss the class of country known locally as the scrubby country as being valueless, but, for the present, it appears probable that there will be no extensive settlement upon it, and most of the returns which a railway could obtain would be from the pine and ironbark timbers of which there is a large quantity.

The approximate distance from Walgett to Coonamble is 72 miles; Brewarrina to Walgett, 90 miles; Narrabri to Walgett, 123 miles; and from Narrabri to Collarendabri, 100 miles. The traffic at present reaches the district almost wholly *via* Narrabri.

Although the cost of carriage varies, according to the evidence, very considerably—taking one season with another—it is not probable that the rate of
road-carriage

road-carriage from Collarendabri or Walgett to Narrabri will be very much under £3 per ton. The method of approach is by road, a great portion of which is black soil and, after even a reasonable fall of rain, traffic is almost suspended.

After due consideration of the access offered to Walgett by the river Barwon, the Committee have come to the conclusion that although, at times, the river traffic might affect the returns of a railway at Walgett, it would not frequently happen. That being so, it is clear that an approach by the Barwon to Collarendabri, for ordinary trade purposes, is out of the question.

The first proposal before the Committee is the line from Narrabri to Pilliga, the cost of which is given at £128,000. The Sectional Committee do not believe that it was ever seriously contemplated to stop a line at that place for any length of time. The objective point must be Walgett, and the construction of any line from Narrabri to Pilliga would certainly carry with it an extension to Walgett. Therefore, it has been determined to take into consideration not only the present proposal—the line from Narrabri to Pilliga—but the line Narrabri to Walgett.

Pilliga is approximately half-way to Walgett. The cost of reaching Walgett would be somewhat more than double the amount already mentioned, say, £260,000. The length is 115 miles. The distance from Woolabra to Collarendabri is 80 $\frac{2}{3}$ miles, at a cost of £207,798. The total length of lines, therefore, proposed by the Government, to tap the country which would find depôts at Walgett and Collarendabri, is approximately 196 miles, at a cost of (approximately) £467,798.

The return from the Collarendabri line, according to the Railway Department, will be £7,190 per annum; from the Pilliga line, £4,720. This would certainly be materially increased if the line were extended to Walgett. Both proposed lines show a considerable loss in revenue.

The mission of the Sectional Committee really resolved itself into the question of whether it were possible, with due regard to the State lands to be thrown open; settlement of an agricultural population; and a proper approach to the depôts proposed to be tapped (Walgett and Collarendabri) to provide a scheme which would develop the country more satisfactorily than the two lines under consideration, and at a cost which would permit them to recommend its acceptance.

The State lands within 20 miles of the two lines, namely, Narrabri to Walgett *via* Pilliga, and Woolabra to Collarendabri will embrace an area of 2,454,000 acres. Full information with regard thereto has been given before the Full Committee. The annual rainfall at Walgett and Collarendabri being not much above 20 inches, must, with our present ideas of what constitutes satisfactory agricultural settlement, even if the land were suitable—taking into consideration the time at which the rain falls in this northern part of the Colony—be regarded as the extreme limit; but thence towards the east, as the rainfall increases, the Sectional Committee see no reason why cereals should not be grown with sufficient success to justify the hope that a portion of this area will be put under crop.

The main difficulties in approaching Walgett and Collarendabri are the crossing of the rivers Namoi and Barwon and several creeks, which, although usually of no great magnitude would, in flood-time, furnish serious obstacles. The route suggested is a modification of the proposal already mentioned before the Full Committee, with such alterations as fuller knowledge enables the Sectional Committee to make.

The evidence of the Supervising Engineer, Mr. Stuart, before the Full Committee, the Sectional Committee have found to have been given with a full and intelligent knowledge of the country under consideration. There are several points with regard thereto, however, which will require further investigation. A line, which for the first 60 miles will form an approach to both Walgett and Collarendabri, turning somewhat south of west through Eurie Eurie to the first-named place, and north-west across the Thalaba to the latter is the best route obtainable. The Committee will state what they believe to be necessary before finally deciding upon the location of the line in detail.

The

The line known to the Full Committee as the "green line," leaves the Narrabri-Moree line a short distance north from the town of Narrabri. If it be determined to join the main line in this direction, it should be considered whether the "green line" could not follow a more easterly course for the first 15 miles, thus saving new construction. The Railway Commissioners might be consulted with regard to this, for a junction might be more satisfactory to them close to Narrabri than a few miles further north as suggested. A closer investigation of the country would also require to be made in order to determine whether there would be any engineering difficulties on the route. Although the Sectional Committee are of opinion that these do not exist, still, until the levels have been taken, it is not wise to express definite opinions with regard to construction.

Although there is better land on the north side of the river, still, contiguity to the timber forests on the south side, and the presence of the town of Wee Waa, are matters that should be fully considered. It is well, as far as is possible, to preserve as trading depôts those centres already established by the residents, unless such preservation entails a greater expenditure of State funds than is justifiable. The Sectional Committee, therefore, suggest that there be a careful consideration of the "green line," with regard to its approach to the Narrabri-Moree line, and also that a survey and estimate be taken out, and a full consideration given to the line on the south side, crossing the Namoi at Wee Waa, and joining the "green line" west therefrom, before it be definitely decided upon which side the line can be located in the best interests of the State and with due regard to existing interests. East from a point west from Wee Waa, on the north side, will be found a piece of flooded country opposite Boolcarrol; west therefrom, to the junction of the lines in the parish of Dewhurst, about 315 miles along the "green line," there will probably be no serious difficulties experienced; thence on the extension towards Walgett, as far as Eurie Eurie, the line follows what is known locally as the Red Ridge as far as Cryan, west from which is black soil, but no serious impediment to a cheap line will be experienced except the crossing of Pian Creek to Eurie Eurie. From Eurie Eurie, on the north bank towards Walgett, is flooded country which will entail considerable additional expenditure.

This extension from Eurie Eurie to Walgett is a matter with regard to which the Sectional Committee had considerable doubt, but after fully weighing the matter, and taking into consideration the expenditure of Government money, and the results of private enterprise in the town of Walgett, the Sectional Committee have determined to suggest to the Full Committee that, notwithstanding the expenditure of a larger amount per mile than usually is necessary on lines in the western district, still they feel they would not be justified in disregarding that expenditure of public money, and also the fact that large bridges have been constructed over the Barwon and the Namoi, really concentrating the trade of a considerable portion of the district upon the town of Walgett.

If Eurie Eurie were chosen as the terminus there would be the following result:—The construction of expensive bridges from the west to approach it, and the temporary transference of the business of the town of Walgett to that place, if the certain agitation which would, probably, eventually result in an extension towards Walgett were unsuccessful for a time.

It seems improbable that the line can be brought nearer to Walgett than perhaps $1\frac{1}{2}$ mile; but investigation may enable it to be extended still further towards the south-west. This can only be decided by actual survey; but, in the opinion of the Sectional Committee, it should be placed as close to Walgett as possible, on the north side of the Namoi.

Turning now to the line to Collarendabri from the point previously mentioned—315 miles along the "green line"—the evidence obtained locally, and investigations by Mr. Stuart bring the Committee to the following conclusions:—For the first 15 miles—that is, to the north side of Burren Creek—there will be no difficulties; thence there will be a few miles of low country but not offering any serious obstacle to construction; thence, *via* Merrywinbone, east of which it will join the Woolabra line, at about 340 miles, to within 10 miles of Collarendabri, no serious difficulty will be encountered.

encountered. Further on there will be some flooded country, and the Grawin Creek and the Barwon will require bridging. Thence into Collarendabri there will be no engineering difficulty.

It was stated by the Department that it would be well to make the terminus of the line some 11 miles from Collarendabri, but it appears to the Sectional Committee that the line will some day be extended towards Angledool, and if that be so, for reasons similar to those stated in the Walgett case, it will be as well to preserve the centre already established by the Government and bring the line adjacent to the town; the position of the terminus should be so chosen that the approach to the west will be the best obtainable.

The length of the two lines under consideration would be somewhat over 150 miles; the proposals of the Government are 196 miles—that is, if the Committee is right in the conjecture that Walgett is the objective point of the Pilliga line. The saving in distance is, therefore, about 45 miles, and the saving in cost of construction approximately £100,000. The only question, therefore, remaining to be considered is, whether the development by this method will be as satisfactory as that proposed by the Government. In the opinion of the Sectional Committee the scheme is better because it gives a shorter length of haulage from Walgett, and passes through superior country. The extent of Crown lands on the two lines, namely, Narrabri to Walgett on the north side of the Namoi, and *via* Eurie Eurie, and from 315 miles on that line to Collarendabri amounts to 1,609,000 acres, which will be readily taken up in small areas. The returns from these lines will be satisfactory. The only reduction from the returns in the proposed lines will be in regard to some country lying about Bunna Bunna and Millie, which will be within reasonable distance of the Moree line and will make to it.

Taking into consideration that the extension on the south of the Namoi is only as far as Pilliga, and also the fact that the circumstances to the north of the New South Wales boundary have been altered by the proclamation already referred to, and the great area of State lands to be developed, the Sectional Committee would suggest that the lines be located as proposed by them, it being, in their opinion, the best way to develop the district, and one which will, almost at once, result in a profitable enterprise to the State.

The evidence given before the Sectional Committee shows the liability of the rivers referred to in the report to flood. It may be laid down that, as a general rule, a flood may be expected once in every seven or ten years. The experience of men who have lived in the district for the past thirty or forty years bears out this statement. Therefore, since the district is liable to inundation only at long periods, it may not be necessary to carry out such engineering works as would be required in case of more frequent visitations.

If the line be located on the north side of the Namoi, the connection of Pilliga, and trade from the south, should be arranged for at once, and the best possible roads of access should be immediately laid out and improved, in order to provide means of communication with the nearest railway station.

Since the statement by the Chief Traffic Manager apparently does not include much return for timber or wheat, and as already pointed out, only applies to half the distance on the south side of the Namoi, it is difficult to form a comparison, but the Sectional Committee have no hesitation, after full investigation in the district, in recommending the General Committee to suggest the full consideration of these works by Parliament.

19 May, 1898.

THOS. EWING,
Chairman.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

MINUTES OF EVIDENCE.

RAILWAY FROM NARRABRI TO PILLIGA.

[TAKEN BEFORE THE SECTIONAL COMMITTEE.]

SATURDAY, 30 APRIL, 1898.

[The Sectional Committee met at the "Great Northern Hotel," Newcastle, at 2:30 p.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. CHARLES JAMES ROBERTS, C.M.G. | JOHN LIONEL FEGAN, Esq.

The Sectional Committee proceeded to consider the expediency of constructing a line of Railway from Narrabri to Pilliga.

George Frederick Earp, Vice-President, Chamber of Commerce, Newcastle, sworn, and examined:—

1. *Chairman.*] I understand you desire to express the views of the mercantile community of Newcastle, in reference to the proposed Railway from Narrabri to Pilliga? They are the views of the Chamber of Commerce, representing the mercantile community. The people of Newcastle ask for no favours, but merely for common justice—justice, in the first place, to the Government of New South Wales, as the owner of the railways, and as the custodian of the public funds; justice, in the second place, to Newcastle, as the port and natural outlet for the district covered by the proposed railway; and justice, in the third place, to the people of Walgett—with whom we are working in conjunction, as the shippers of produce from that district to the markets of the world. The port of Newcastle is a port on which the Government has spent something like £1,000,000 towards making it suitable to the trade of the north. That money would never have been spent for the sake of the paltry bit of trade of Newcastle only. Its expenditure would never have been justified excepting to make Newcastle a port for the district which it naturally commands at the back—I refer to the northern and the north-western portion of the Colony, which is naturally commanded by the port of Newcastle. Steamers can leave this port drawing 23 feet 3 inches at neap tides, and about 23 feet 9 inches at spring tides. That includes 99 per cent. of all the steamers of the world. There are very few steamers drawing more than that. Works passed by the Public Works Committee are at present in progress with the view of increasing the depth by scouring the channel. During 1897, there were entered and cleared, independently of coasting vessels, 1,363 deep-sea-going vessels, representing 1,729,761 tons. These vessels are trading to every port in the world. Probably the ports that would be most interested, in addition to intercolonial ports, so far as this particular district is concerned, are those of the United Kingdom, the Continent, and the west coast of South America; also, in futurity, Japan and China. Regular lines of vessels go to these places. During the wool season we have two firms putting on regular sailing vessels and steamers to convey the wool, which is carried at about the same rates as from the port of Sydney. We also have regular lines to the east which are carrying freight on the same terms as from Sydney. Thus the port of Newcastle stands unrivalled, in respect of shipping facilities, by any port of the world.

2. *Mr. Roberts.*] Are any wool sales held here? No. Wool sales are held in Sydney, and, of course, we have railway and steam communication with Sydney. The wool can be sent to Sydney from here at a low rate of freight. The local steamers are bringing freight to this port as 3s. 6d. per ton. Only this week I arranged for 600 tons of cargo at that price.

3. *Mr. Fegan.*] Is there anything to hinder Newcastle ultimately becoming a wool depôt? Nothing whatever. Newcastle claims the trade of a certain portion of the country. The Government figures show that the distance from Newcastle to Narrabri is 255 miles. The distance from Narrabri to Walgett, *via* Pilliga, is about 113 miles. That gives a total of 368 miles from Newcastle to Walgett. I will take the most probable alternative scheme to the one you are considering—that is, Sydney to Walgett, *via* Coonamble and Warren—and I will give you the distance on that route. The distance from Sydney to Warren is 353 miles, and the distance from Warren to Walgett, *via* Coonamble, is about 128 miles. That gives a total distance of 481 miles. The difference, you will at once see, is 113 miles. Of course, there would not be that distance of line to make, seeing that the railway has got as far as Warren, but we have to look at something beyond the mere laying of metal and plates; we have to look for all future time to the haulage, which, I take it, is of greater importance to us and the people of Walgett than the question of merely laying a few extra miles of railway. As I have stated, the difference of haulage between these two routes would be 113 miles; and I will endeavour to show you, from the merchandise and live-stock rates book, what that means. There are two descriptions of traffic which we have to consider. First of all there is the down traffic from the sea-board to the interior. That consists of supplies, stores, requisites, and that kind of thing, required by the people within the district. The other description of traffic is the up traffic—that is, the produce of the country going to the sea-board.

G. F. Earp. In one instance it is a question of supplies, and in the other a question of sending produce to market. There are in the rate-book six classes of goods, and six methods of fixing rates. I will refer to some of the articles which every settler, squatter, and inhabitant of this district requires. Take seeds, which are required by every agriculturist. Going *via* the Sydney line, the freight on seeds would be £1 8s. 5d.; *via* the proposed Warren-Coonamble line, £1 3s. 8d. This means that the people of that district have to be dealt with unjustly and made to pay a higher mileage scale than they need, or that the Government have to lose an equivalent in the cost of haulage. With regard to Class A, consisting of flour and bran, by the Newcastle line the rate is £1 7s. 11d., and by the Sydney line, £1 14s. 2d. In addition to that there is 20 per cent. added. Take salt, cement, agricultural implements—all largely used by squatters and settlers. The cost *via* the Newcastle line is £2 8s. 2d.; by the Sydney-Coonamble-Warren line, £2 19s. 6d.; difference, 11s. 4d. Then we come to another class of article, such as sugar, assorted groceries, and fencing wire. These come under Class I. The rate by the Newcastle line would be £5 1s. 3d.; by the Sydney-Warren-Coonamble line, £6 5s.; a difference of £1 3s. 9d. With regard to bridge work and boilers, bar and wrought-iron, which come under the second class, the rate from Newcastle is £6 6s., and from Sydney £7 15s. 8d.—a difference in favour of Newcastle of £1 9s. 8d. I should say that these rates are all down rates. Then we come to the third and last class—spirits, tea, drapery, &c. The rate from Newcastle is £8 15s. 4d., and from Sydney £10 16s. 10d.—a difference of £2 1s. 6d. on every ton of goods which would go over the Sydney line as against the people who are buying the stuff up there. That deals with the traffic one way. Of course, the traffic the other way is of a different kind, and special rates are made by the Department with the view of favouring it, and as an incentive to the growers, and farmers, and squatters to increase it. I might say that I think the proportion coming this way will be about the same as the proportions coming the other way. I will take stock and wool, which I believe are the chief products. The rate for this class of goods is fixed by the truck, and a truck of stock from Walgett to Newcastle, would cost £7 5s. 5d. A truck of stock from Walgett to Sydney would cost £8 19s. 3d., a difference of nearly £1 13s. 10d. on every truck of stock which would go to Sydney in place of coming to Newcastle. I think, in these figures, I have shown that there is a very great principle at stake—both to the people interested and to the people of the Colony generally, whose funds are being spent on the construction of railway lines. The difference is enormous, and I think I need hardly further dwell upon it.

4. *Chairman.*] If a line is constructed from Dubbo, it will make an alteration of about one-third in your calculation? Yes.

5. You still would be 70 miles to the good? Yes, that would make a difference; but I understand that the scope of the inquiry scarcely covers that line, and therefore I have not referred to it. I may state that I presume the Walgett Railway League represents the majority of people in that district. No doubt there are people in Walgett who are opposed to the construction of the railway, and indeed to the construction of any railway; but we must regard the voice of the majority of the people, and I presume the Railway League at Walgett represents the majority of the people there. The Chamber of Commerce, yesterday, received a telegram from the Walgett League as follows:—

We say Newcastle natural outlet Walgett and back country.

That is from the League at Walgett. A number of reasons have been given by the Secretary to the League (Mr. Clarke), of which I will give you a *resume*. He says:—

1. The Walgett Railway League urges the construction of the line from Narrabri, on the south side of the Namoi, the ground being higher. Only 8 miles of this country was flooded in 1890, which is the highest flood recorded.

2. The country from Pilliga to Walgett cannot be excelled in the Colony—good for anything. From Narrabri to Pilliga there is a large timber trade.

3. The distance is 113 miles. The cost of construction would be £260,000, or £2,297 per mile. The annual cost would amount to £18,333. The revenue from the present traffic would exceed that amount; but if the railway were constructed the estimated increase would give a revenue ample to repay all charges and interest.

This estimate the Walgett League considers would be less than that for the line *via* Warren, because five or six bridges would have to be crossed on that route. On the Narrabri to Walgett line there are no engineering difficulties. The revenue from the present traffic would far exceed £18,333, but if the line is constructed there will be a very fast increase, judging from what has taken place in connection with the construction of railways in other parts of the Colony—an increase of 15 to 25 per cent.; and that would give a sufficient profit to pay all expenses and interest on the capital outlay, which, I take it, is all that the Government of this country expect from any line built.

4. Thousands of stock, which perish every time there is a drought, would be saved if the line were built.

5. The Walgett League, representing a majority of the Walgett people, urged this route as the natural outlet of Walgett and the back country.

6. A proportion of the traffic leaving Newcastle has previously come from Sydney? I had intended to say a word on that. Newcastle is as good a market for the people of the north as is Sydney. Rock salt, salt, cement, sugar, and all the leading lines can be purchased at Newcastle at identically the same prices as in Sydney. We have to compete with the Sydney houses. We could not sell at any higher prices than they sell in Sydney. The steamers are taking the goods from Sydney to Morpeth, and they are actually paying truck rates from Morpeth, so that we have to compete with them, and if we did not make our prices the same as those of Sydney, we should lose the trade. All the leading lines are imported direct. We have three lines of vessels from New York, bringing kerosene and American produce. We have two lines of sailing ships, and a large number of tramp steamers bringing British merchandise from London. We have three lines of sailing ships from Liverpool, bringing salt, earthenware, beer, and spirits. We have a line of vessels from Glasgow, bringing beer, wood, machinery—everything in fact that is shipped from Glasgow. We have a line of sailing ships, and also a line of steamers from Hamburg—the German-Australian S.S. Co., bringing stuff from Hamburg. We have also a line from Antwerp; so that Newcastle imports the great bulk of its stuff. Sydney buys from Newcastle in the same way as Newcastle buys from Sydney.

7. *Mr. Roberts.*] If a man at Walgett buys his merchandise at Newcastle, does he save the freight between Newcastle and Sydney? Yes, in a great many instances. For instance, he will save it on rock salt. A steamer could not afford to carry rock-salt at all. The whole of the supply of salt, which is the principal item a squatter uses, is bought from Newcastle. The firm I represent alone gets through 5,000 tons per annum, all of which is forwarded to this district and places on the northern line. There are other firms doing an equally large trade.

8. *Mr. Fegan.*] What you wish to convey is that you are not dependent on Sydney for your supplies? *G. F. Earp.*
 No. We get our supplies from the ships direct from the port of shipment.
9. What proportion of imported goods comes direct to Newcastle, over sea? Fully 75 per cent. If a Sydney merchant requires a line of goods for a squatter, he frequently buys it from a Newcastle house. Lister, of Sydney, frequently buys large amounts of stuff from us to send to squatters.
10. What is the freight on wool from Morpeth or Newcastle to Sydney, by water? There is competition at the present time, and it is a matter of arrangement.
11. Give us a fair running price? It is a very low price. I know that stuff is being carried both ways at prices varying from 2s. 6d. to 4s. per ton. Of course, the tariff rate may be 7s. per ton, but large discounts, amounting to 50 per cent., are given, and unless you are a customer of one of the companies you do not really know what freight you can get. I may say that the freight is a nominal one.
12. I suppose, however, that that state of things is not going to last? I believe it is. It is just the same as the running of penny buses in London, which has resulted in a vast increase of traffic.
13. Then wool can be taken from Morpeth or Newcastle to Sydney for 4s. a ton? There is no doubt that general goods are carried at that rate. Of course it is a matter of arrangement.
14. What is the freight by rail for wool or ordinary commodities?—The distance to Sydney is about 120 miles, and the freight for scoured wool is £1 4s. 6d. Of course no one sends wool that way. It is sent by steamers at a cheaper rate. The rate from Goulburn to Sydney for wool undumped and scoured is £2 5s., and for greasy wool £1 13s. 9d. per ton.
15. What is the mean of the greasy and the scoured? About £1 19s. 4d.—say £2.
16. What about the stock? Stock are on a different basis. [*Vide Appendix.*]

James F. Kerr, agent for the Singer Manufacturing Company, Wallsend, sworn, and examined:—

17. *Chairman.*] Have you heard the evidence of Mr. Earp? Yes. *J. F. Kerr.*
18. Do you believe it to be correct? I do. 30 April, 1898.
19. *Mr. Roberts.*] Would you like to make a statement? I wish to refer to one portion of Mr. Earp's evidence. He said it would cost 16s. more per ton to take goods *via* Dubbo to Sydney. That is not a fair statement, because the haulage over the Blue Mountains is extra haulage. An engine could carry double the quantity of goods on the Narrabri line than it could over the Blue Mountains. It would be more expensive to take the goods that way, because engines cannot draw the same quantity of goods as on the Northern line. It would cost the State very much more to draw over the Blue Mountains than to draw to Newcastle. Again, produce is brought more cheaply to Newcastle than to Sydney, inasmuch as it is carried as ballast. I have known corn to be landed here almost free. We get produce from other colonies more reasonably than they do in Sydney, because we are able to send coal as return goods. From 1875 to 1878 I was on a station at the head of the Castlereagh, and I had to purchase Hunter River lucerne hay, brought all the way from Sydney to Mudgee and to Coonabarabran. In time of drought a light line constructed to the pastoral district of Walgett would enable the squatters to preserve their stock.
20. I take it that what you wish to impress on the Committee is the fact that if it should be decided to connect Walgett with the railway system of the Colony, the best way to do it would be by way of Narrabri and Pilliga? Yes.
21. Do you know that country well? Yes; I have resided in Coonabarabran for seven years, and also in Narrabri.
22. Do you know the country between Narrabri, Pilliga, and Walgett? Yes.
23. Which side of the river would be the best for the construction of a line? The southern side. From Narrabri to Pilliga the country is very flat. I do not know of 60 miles of country anywhere through which a railway could be constructed at such a low cost. Between Narrabri and Pilliga there is splendid white pine, and ironbark. When you get towards Pilliga you come to open and better country, and from there to Walgett the country is not to be excelled. I have heard of as much as 40 bushels to the acre being grown. I anticipate that a light line of railway would cost the country less than the present road. The country about Coonamble and Moree is clayey, and when it is wet it is impassable.
24. Is there any flooded country along the route? The ground is flat, and there has been one large flood; but there is no force of water. In flood-time the water lies back harmless on the plains. The distance from Dubbo to Coonamble is 109 miles; from Coonamble to Walgett, 75 miles; that means that from Sydney it is 463 miles over the Blue Mountains. From Newcastle to Narrabri the distance is 250 miles; from Narrabri to Walgett, 115 miles—total, 365 miles. From Sydney to Mudgee the distance is 191 miles; from Mudgee to Coonamble, 144 miles; from Coonamble to Walgett, 75 miles; total, 410 miles. Going from Narrabri to Pilliga, and on to Walgett, you open out a vast tract of good country. Going towards Barradeen there is some very good agricultural country. I estimate that the 60 miles of line from Narrabri to Pilliga could be constructed for less than the first 15 miles of the line from either Dubbo or Mudgee. There are no engineering difficulties whatever.
25. Do you look upon Newcastle as the natural outlet for the north-western district? I do. I may state that the Railway Commissioners have been over all the proposed lines but that from Narrabri to Walgett. If they were to go over it there would be no doubt about their recommendation.
26. *Mr. Fegan.*] Is there any necessity for the construction of any bridges as far as Pilliga? None whatever.
27. *Mr. Roberts.*] Is the country between Narrabri and Pilliga pastoral country? Not the whole of it; there are a few good farms. It is, however, principally a pastoral district.
28. If the proposed line were constructed, do you think the country would become to any extent an agricultural settlement? Yes. The Barwon comes within 4 miles of Walgett, and thousands of tons of produce go to Queensland that way, and they would come this way if the proposed line were constructed.
29. *Mr. Fegan.*] Would the construction of the line give an impetus to small settlement? It would; the pastoral country there is nearly all Crown land.

Michael March, wool manager for Dalgety and Co., Newcastle, sworn, and examined :—

- M. March.
30 April, 1898.
30. *Mr. Fegan.*] Have you heard the evidence given by Mr. Earp? Yes.
31. Have you any further information to give in relation to the wool traffic? The rate for wool from Morpeth *via* Newcastle to Sydney is 13s. 6d. per ton. We go to Morpeth to take advantage of the lower steam freight to Sydney. There is also a little difference in the railway rate. The rate from Newcastle to Sydney, by rail, is 18s. per ton, as against 13s. 6d. by steamer. To that you have to add the cartage in Sydney.
32. Do you remember it being lower than 13s. 6d. at any time? Yes, it has been a little lower. It always used to be about 2s. per bale, and it comes to much about the same thing.
33. Do you get a great deal of wool from the north? Yes.
34. Where from, principally? We have stations north and north-west. We have some near Tamworth. We get wool from there, and from almost every station on the Northern line.
35. How many stations north and north-west have Dalgety and Co.? I could not say, because those stations are managed by the Sydney office.
36. Can you tell us from what stations you get your wool? The best thing to do would be to get that information from the Railway Department. The firm might object to their business being published in that way.
37. Can you tell us the total amount of wool which passed through your hands from the north and north-west portions of the Colony this year? I can give you it approximately. I should say that the amount which arrived at Newcastle from the north-west—that is, which came to Narrabri railway station—would be about 15,000 bales, or 270 tons. That includes the wool from Narrabri, west of Narrabri, and north-west of Narrabri. It does not include wool brought over the Moree railway.
38. Do you export direct Home? Yes.
39. Without sending to Sydney? Yes.
40. Did the 270 tons of wool which you have received go away direct? Yes; all we had went direct.
41. What freight do you pay from Narrabri? The rate on greasy wool to Newcastle is £2 13s. a ton, and on scoured wool, £3 10s. 9d.
42. Do you send anything into the interior from Newcastle? Very little; we do more of an export trade.
43. I believe you have a direct line of steamers? Yes; we have the Aberdeen line, also the sailing ships, the Capital Port Line, the Federal Steam Companies, the Mogul Steam Company, and there are always tramp steamers coming in.
44. Have you any frozen meat trade? Yes; there is a fair trade.
45. What was your output last year? I could not tell you, but I could supply the information.
46. Has that trade increased during the last few years? Yes, it has greatly increased.
47. Where does the mutton chiefly come from? From the Aberdeen works.
48. Have you any further information to give? I might state that I know the Narrabri and north-western districts, and from what I know of the country and the settlement which has taken place, I can strongly recommend the construction of the proposed line. It is a very rich grazing district, and the settlers, especially on the Namoi, are very well to do. I take that to be a good sign.
49. Has your company any stations on the route of the proposed railway? No; there is one on the other side of Walgett.
50. Do you take the wool from there to Brewarrina? No; it came this way this year.
51. But whenever the river is up you generally take it to Bourke? No; I do not think the river will affect the proposed line if it is constructed.
52. What is the nearest point of any of your stations to the proposed line? There is a station some miles from Walgett, but I could not tell the distance; but I am not advocating the railway on that account.
53. Could you give us the capabilities of that station? I am afraid that if Mr. Carruthers' Land Bill is carried it will not be in existence; in a few years it will be very much cut up. Of course that will be all the better for the railway. I was at Narrabri when one of the runs was thrown open two years ago, and there was a tremendous rush for about thirty blocks. People came from Victoria, and all over New South Wales.
54. There is no doubt of the quality of the land there? No; the people already settled there applied for it for themselves or for their sons, and that proves the quality of the land.
55. And, as you say, the settlers are nearly all well to do? Yes, especially on the Namoi and the Pian Creek district.
56. I suppose there are not many in those districts who are giving up their holdings? No; they are all *bonâ fide* settlers.
57. Have you any further information to give? I heard something about the suggested railway from Bourke to Brewarrina. I can corroborate all that Mr. Earp said about Dubbo, Coonamble, and Warren; but I should like to go a little further. I suppose the Pilliga line would eventually go to Walgett.
58. I suppose you could not see your way clear to support the construction of the line if its destination were not Walgett? Yes; I could support it if it went to Pilliga.
59. Do you know that there would be a loss of £4,000 a year upon it? It is probable; but I should think it would pay as well as other lines, from Werris Creek to Gunnedah, and from Gunnedah to Narrabri.
60. You think the construction of the line would give an impetus to settlement, and also greater facilities for the pastoralists to send their live stock, &c., to market? I do. I may mention that when the settlers of the district want to send their sheep to Narrabri, to truck them to Maitland or to Sydney, they have to go along the southern side of the Namoi, and there is no feed there to speak of; consequently, the sheep have to go four or five days without anything to eat. I have heard several people say that it means a loss of 3d. per head. If there is a railway, that will be avoided. I hold that if they went to Walgett it would be better for the people in the north-west, and for the country at large, than the railway from Bourke to Brewarrina.
61. I may mention that the Brewarrina people admit that? I was about to state that the distance to Newcastle, which is the shipping port, is very much shorter, and Newcastle has facilities equal to those of the port of Sydney. The freights are never higher. Again, if people want to send their wool to Sydney for sale, there would still be a saving of 50 or 60 miles of railage. The people of the north-west ought to have the privilege of being able to ship their wool, if they want to do so, at the nearest port, and then if they want to send it on to Sydney for sale, it will be no injustice to the Brewarrina or Bourke people.

- people. I may state that I recommend the line, as well as for the reasons I have already given. I have been over some of the district. M. March.
30 April, 1898.
62. As far as your knowledge is concerned, then, the country is equal to that you have described from Narrabri to Pilliga? I think so; it is excellent grazing country.
63. Would you advocate the construction of both lines—that, is the line from Narrabri to Pilliga, and from Woolabra to Collarendabri, or a central line instead of the two;—have you been to Eurie Eurie? Yes.
64. How would a line do if it struck the north bank of the Namoi and proceeded to Eurie Eurie? It might suit Walgett, because it is not more than 12 miles from there, but I am afraid the Collarendabri people would not be satisfied, because they would have the same objection that the Moree people had to the Gurleigh Point road.
65. What is a reasonable distance for a pastoralist to take his wool or stock? I should think that if he got within 25 miles or 30 miles of a railway he would be all right.
66. Would 40 miles be too much? I do not think it would; it all depends on circumstances.
67. If there were anything like a road you would not think 40 miles out of the way? No; especially in the north-west.
68. Would a railway on the north bank of the Namoi to Eurie Eurie serve all purposes? Where would you cross the river—would you go on the south bank as far as Pilliga?
69. No; on the north bank from the commencement? Would you go by Bulyeroi?
70. A line of that kind would be between Bulyeroi and Wee Waa? That line would catch all the Wee Waa settlement undoubtedly, but it would not suit the Wee Waa people.
71. *Chairman.*] What quantity of goods distributed from the port of Newcastle comes over sea to Newcastle? I should think Mr. Earp's estimate of 75 per cent. is correct. A lot of goods come to Newcastle which are shipped direct, but for the convenience of the vessels in Sydney they tranship them at their expense. For instance, vessels come to Sydney with 100 tons out of 2,000 tons for Newcastle. It does not pay them to come on here, so they send them on by coastal steamer at a very cheap rate.
72. Do they charge the Newcastle man that rate? No; I think they pay it themselves.
73. What proportion of the wool that comes to the Hunter or the port of Newcastle is exported direct over sea, and what proportion goes to Sydney? The wool which comes to Newcastle is almost solely exported direct, with the exception of a few clips which are taken on chiefly to Melbourne.
74. How does the trade in wool to Sydney compare with the Newcastle export trade in wool? During the last two or three years the quantities have been pretty equal—60,000 or 70,000 bales each.
75. Are we justified in saying that all the wool that comes down the Northern line divides into two when it reaches the Hunter, one half going to Sydney by steamer, and the other half going over sea? I think so, approximately.
76. Does some go by rail? Yes.
77. What proportion? A small proportion—not much.
78. Would you say one-fourth? No; it might be one-eighth.
79. It is not enough to alter the two divisions you have made? I do not think so. I should like to state that far more wool comes to Newcastle from the north-western district than to Morpeth.

MONDAY, 2 MAY, 1898.

[The Sectional Committee met at "Thurlow's Hotel," Narrabri, at 10 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Narrabri to Pilliga.

Albert Ernest Collins, Mayor of Narrabri, sworn, and examined:—

80. *Chairman.*] Do you desire to express any opinion in reference to the proposal before the Committee? A. E. Collins.
2 May, 1898.
On receipt of your telegram and letter from Newcastle, I made it my business to see some of the aldermen and representative people of the town, and it was their opinion that Narrabri should remain in a position of neutrality in regard to the proposed line. They are of opinion that any line going away from Narrabri would do the town a certain amount of injury. They, therefore, think it better not to prejudice the proposed line in any way, but to remain in a position of neutrality. My remarks apply also to the construction of a line from Woolabra to Collarendabri.

Walter Neville Sendall, District Surveyor, Tamworth, sworn, and examined:—

81. *Chairman.*] Have you a knowledge of the country under consideration by the Committee? Yes, as far as Come-by-Chance, on the southern side of the river, and also extending northward to the Thalaba Creek. W. N. Sendall.
2 May, 1898.
82. Will you describe the country on the southern side of the Namoi, as far as Pilliga, running from Narrabri west, past Millie and Wee Waa? Between Narrabri and Wee Waa there is a stretch of good pastoral country, extending from the river to the cleared road. South from that the country is poor scrub, and is partly sandy—I should say the bulk of it is sandy.
83. Does that extend far to the south? I have not been right through it; but I know it extends a very considerable distance from Wee Waa to Pilliga. With the exception of the banks of the river it is similar country over an average width of about 5 miles. It broadens out towards Come-by-Chance to a width of 10 miles, and south of that it is again inferior scrub country. I have been a little beyond Come-by-Chance, but my knowledge with regard to the country between there and Walgett is not personal; but its general repute is that it is better country.
84. Would the green line shown on the plan pass through better country? Yes; I know that country as far as Burren—that is about north from Pilliga. I also know the country lying between the surveyed line

- W. N. Sendall. line marked green, and the river Namoi as far as Yarraldool. That country is also good pastoral country.
- 2 May, 1898. 85. Is there any doubt that the green line goes through better country for almost any purpose than any land on the south? I am not prepared to speak about the agricultural possibilities of the country.
86. What is your opinion of the two routes, as far as production is concerned? The country on the north of the river is superior to that on the other side. It will carry more population, and give better returns.
87. Is there much settlement on the northern side of the Namoi? There is a good deal of settlement taking place on Nowley and Merah, and there is no doubt that the whole of the Crown lands, as they become available, will be readily taken up for pastoral purposes.
88. On what terms are you leasing your Crown lands there? As settlement leases for twenty-eight years, at about 4½d. per acre, taking the country all through.
89. What would you get from the pastoralists? I think about 3d. per acre.

Bishop Lyne, Inspector of Conditional Purchases, Narrabri, sworn, and examined:—

- B. Lyne. 90. *Chairman.*] Do you wish to make a statement with regard to the country in the neighbourhood of the proposed line of railway? I have an intimate knowledge of the country from here to Wee Waa, and of the tributaries on the southern side of the Namoi. The country is heavily timbered with ironbark, cyprus-pine, box, oak, and the usual timber. I consider the ironbark and the pine of very great value. I estimate its value at about £1 an acre, on an area extending back for 30 miles. I base that estimate to a great extent on the fact that at this end, since I have been in the district, about £10,000 worth of railway sleepers have been delivered at West Narrabri, and I have applied the area from which they have been obtained to the whole district. The sleepers are of such a character that they are used on all important lines. I think they are used on the suburban lines. They are shipped from here to Sydney, and north along the other lines.
- 2 May, 1898. 91. How far are the sleepers drawn? Thirty miles. Of course, the bulk are obtained from about 15 miles, but they are being drawn at present for 30 miles.
92. And that belt of country runs from Narrabri, beyond Pilliga, back from the country which fronts the north side of the Namoi? Yes.
93. And there is a frontage of pastoral country on both sides of the Namoi? Yes; a frontage of agricultural and pastoral country; but all through this area there are patches of good wheat-producing country.
94. What proportion of it—take 20 miles south of the Namoi? Taking the whole area right through, the proportion would not be greater than 1 acre in 10. Of course there are some few thousands of acres together, and then you come to ironbark ridges where there is no agricultural land at all. The whole of this forest is interspersed with creeks, and most of them have permanent water in them. Although the agricultural land is not in acreage extensive, still fronting most of these creeks there is a strip of agricultural land on each side.
95. How far does your district extend? To 8 miles on the other side of Come-by-Chance.
96. There, I believe, the ordinary pastoral land is a little wider? Yes, it widens out from Pilliga.
97. Now take the north side of the Namoi? The north side of the Namoi, from Narrabri to opposite Pilliga, is rich grazing country of a fattening character—very similar the whole of the distance. There is rich alluvial soil on the frontages, and salt-bush plains at the back. The salt-bush is not there to any extent at present, but that is the character of the natural state of the country.
98. Is there any timbered country suitable for agriculture at present? Not as far as my experience goes. It is of a limestone formation all through, and it has not been tested in this district for wheat-growing.
99. What is there at the back of that country again, keeping, say, 20 miles back to the river? My description applies to the whole of it. The frontages are a lower kind of country with the coolabar bush upon it, and it then merges into salt-bush at the back.
100. Do you know of any country on the north side of the Namoi which you regard as suitable for the growth of cereals, if the climatic conditions are favourable? Personally, I regard it as suitable for cereals, but it has not yet been tested. I have seen the same character of country in the Parkes and Forbes district, and at the head of the Bogan, and it has produced excellent crops of wheat.
101. Then there is a fair probability that if the country is required to grow cereals it will do so if the climatic conditions are favourable? Yes.
102. What do you think of the future of the district? I believe there is a great future for it. Up to the present the people have not resorted to agriculture to obtain a living, but the country only requires developing. It is a splendid district. I have had experience during the last twenty-five years of many districts of the Colony, and the climate and class of soil of this district suggest that it will be a heavy wheat-producing district in time. I take it that the reason that farming in some cases has not been successful is the fault of those going in for the industry. I should like to state my impression with reference to what is looked upon as a wilderness on the other side. I think the acreage is altogether about 3,000,000 acres, and I have an impression that it is quite possible that a number of small farmers would make very good livings there—first of all, on account of the fact that there is natural water there; and secondly, on account of the fact that there is an industry there for them to commence with—I refer to the timber—which will be of a lasting character for the next fifteen or twenty years. In many parts the soil is particularly well adapted to agriculture. Where the silver-leaf ironbark is on the flats—such as the parish of Meit, opposite Pilliga—there are from 6,000 to 10,000 acres of that class of country, with very few breaks in it. Narromine and other parts of this country would be exceptionally good for wheat-growing. It is open forest of scattered pine and coolabar box. I attach great value to the timber. There is an acreage of it of 80 miles by 30 miles. From Baradine to Pilliga the country is very level, and water is obtained in shallow wells. Wherever I have seen people attempt to obtain it they have been successful. I should like to mention that seven years ago the representative of a South Australian syndicate spent several days in this forest, his object being to bring South Australian farmers out here. He made a proposal to the Government of this country to bring 100 farmers into that forest, if they would agree to certain terms which he proposed. The terms were that they should have the land free of rent for twenty years, and that the Crown should then assess it with the improvements upon it, and fix a fair rental. I am not certain in regard to any other stipulation. However, his terms were not agreed to. The country

country has been heavily stocked—perhaps more than any other part of the country—with marsupials. Dozens and dozens of men are living there doing nothing but hunting and shooting the marsupials for their skins. The best timber is not at the end from which so much ironbark is obtained, but at the further end, where there is a very extensive timber reserve. It extends for 25 miles by 12 miles. I attach more importance to the value of the timber in connection with railway construction than I do to the pastoral interests on this side. The country from Narrabri to Pilliga is very level.

B. Lyne.

2 May, 1898.

Richard Ford Jenkins, Road Superintendent, Moree, sworn, and examined:—

103. *Chairman.*] What are the boundaries of your district? Moree and Narrabri are the boundaries of my district. R. F. Jenkins. 2 May, 1898.
104. *Mr. Hassall.*] Do you know the country traversed by the proposed line? I do not know it for any great distance on either side of the road; but I know it along the road. Taking it as a whole, it is bad country. It is covered with brigalow, and rosewood scrub, belar, coolabar, and patches of oak. There are patches of flat black-soil country on the river frontage. It is good herbage country, but not first-class country. The scrub country is nearly all sandy, and in my opinion is of very little value.
105. *Chairman.*] For any purposes? If some of it were cleared it might perhaps grow wheat.
106. *Mr. Hassall.*] Do you think that wheat-growing would last? I do not think it would. I do not think, owing to the expense, that it would be worth clearing.
107. Do you know the country lying back from the road? No; I believe there is little or no settlement there; in fact, there is an enormous area of agricultural land available for improvement lease lying there vacant, and no one will touch it.
108. Do you know the country lying to the north of the Namoi? Yes. I do not know the country very well beyond Bulyeri and Boolcarrol. I know the country between Narrabri and the Namoi River, running north to Moree, and running west as far as Bulyeri; and also west from Bulyeri, running north, on to the Meehi country, and towards Mogul; but I am not very well acquainted with the country lying west and south-west from Bulyeri—the country bounded on the west by the Barwon River, and on the south by the Namoi.
109. Do you look upon the country lying between Narrabri, down towards Wee Waa, as far west as Bulyeri, as suitable for settlement? Yes; speaking generally, I should call it first-class grazing and fattening country.
110. Do you know whether it is settled to any great extent? There is a fair amount of settlement down there. There is a fair amount of settlement from Narrabri to Boolcarrol; but the country between Boolcarrol and Bulyeri is not so thickly settled. There is a lot of land not yet available for settlement, and when it is available I have no doubt that practically the whole of it will be taken up. In this country there are little patches of scrub which are of no use. They are, however, only small; but the good country is so extensive that it must support a large population. The whole of the country between Narrabri, Moree, Mogul, and Wee Waa is very good.
111. What sort of a road is there between Narrabri and Bulyeri? The greater part of it is black-soil plain and open forest country.
112. I suppose there is not much chance of making a macadamised road through it? No.
113. Taking into consideration the distance the metal would have to be drawn, what would it cost to construct a road there? It would vary from between £400 and £800 per mile.
114. Where would you get your metal from? I do not think you would be able to get it at all.
115. Do you know of any metal on the road? No; only gravel, and you would not get that in any quantity beyond Wee Waa. Therefore, I think you might say it would be impossible to construct a road beyond Wee Waa—that is, unless the metal were carried from Wee Waa, and that would mean enormous expense.
116. Looking at the proposed line marked on the map, and with your knowledge of the county between Narrabri and Pilliga, and your knowledge of the country between Narrabri, Boolcarrol, and Bulyeri, and then looking at the approximate position of the recently surveyed line running in the direction of Walgett, on the north side of the river, which, in your opinion, would be the better route for a railway to take—the south or the north side of the river? I think that a railway constructed on the northern side would serve a very much larger amount of settlement, and open up a very much better country than one on the southern side.
117. What sort of an approach would there be, supposing the lines were 8 miles north of Wee Waa? We could make a road there for that distance for about £2,800.
118. Do you know what would be the cost of a road-bridge over the river at Pilliga? About £4,000. A bridge over the river below Pilliga would be available, and the most suitable point for traffic coming in by way of Come-by-Chance.
119. Do you think the green line marked on the map would serve the country out towards Bulyeri? Yes; it would serve a good deal of the settlement around that quarter.
120. How far would the line be from Bulyeri? About 20 miles.
121. Have you heard of the proposal to construct a line from Woolabra to Collarendabri? Yes.
122. From what you know of the country, and the settlement which has taken place upon it, do you think it would be justifiable to run a line on the south side of the Namoi, *viâ* Pilliga, to Walgett, and another on the north side of the Namoi from Woolabra to Collarendabri? No.
123. Do you think a line, as suggested, running from Narrabri on the north side of the Namoi towards Eurie Eurie, within 12 miles of Walgett, would practically serve and open up the country lying north-west towards the Barwon, and the country beyond it? I should say that it would serve better country if it went further north still, between the Woolabra-Collarendabri line and the other.
124. A line in that direction further north would not serve the Walgett traffic so well? There is no doubt a line in the position named would serve the Walgett traffic as well as the Collarendabri traffic.
125. How far is Boolcarrol from the proposed line? It is close to it.
126. What traffic comes through Boolcarrol? All the traffic from Collarendabri and Mogul, and about there.
127. How far is Boolcarrol from Narrabri? Thirty miles.

R. F. Jenkins. 128. If the line marked green were constructed, where would the Collarendabri traffic strike it? I think it would use the present road for a certain distance—perhaps to Bulyeroi—and then branch off near Pilliga at about the 310-mile peg. That would mean opening up a new road. There would also have to be a new bridge across the creek. The opening up of new roads in that country is not an expensive matter; it only means a little clearing. I think a line running through the country referred to would serve the country to Collarendabri and beyond, as far north as Gundablui, on the Moonie Creek, and then the country extending west and south from there down towards the Darling River.

WEDNESDAY, 4 MAY, 1898.

[The Sectional Committee met at the Court-house, Wee Waa, at 10 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Narrabri to Pilliga.

Walter William Richard Holcombe, grazier, Weta Waa, sworn, and examined:—

- W. W. R. Holcombe. 129. *Chairman.*] How long have you resided in the district? Twenty years.
130. Where is Weeta Waa? About 8 miles down the Namoi from Wee Waa, on the north side of the river.
- 4 May, 1898. 131. What is the area of your holding? 27,000 acres.
132. How many sheep have you? 24,000.
133. What will the country you hold carry as a rule? A sheep to the acre.
134. Have you cultivated any cereals? I have grown wheat at different times.
135. Are there large areas on the Namoi suitable for the growth of cereals? There are large areas suitable for growing wheat, and wheat is grown, but it pays us better to grow wool, as we have no means of getting the wheat to market.
136. What does it cost to take a ton of wool from Wee Waa to Narrabri? Twenty-five shillings. Wheat would cost about the same.
137. Do you think you could get wheat carried for about £1 a ton? I think you might. The present rate would be about £1 a ton. I may state that there is a large extent of country about here which will grow wheat. I saw corn growing in the scrub towards the south only a few days ago. Even a lot of the black soil will grow grain. For instance, you could grow grain at Pian Creek. I was looking at a piece of scrub country 10 miles from here, and I know that that will grow grain. I saw corn which had been taken off it. I produce samples of oranges and grapes grown in the district. I do this to show that the district is suitable to the growth of fruits of this kind. We grow all the tropical fruits—peaches, stone fruits, oranges, lemons, pomegranates, and figs. There are thousands of acres on Pian Creek better than my land for the purposes of fruit-growing.
138. What do you think of the position of the proposed line? Personally, any of the three lines marked on the map would suit me. If I had my choice I would have the dotted line running on the south side of the river, crossing the line below Wee Waa.
139. Your sympathy with the line on the Wee Waa side is your sympathy with the Wee Waa people, but personally it does not matter to you? That is so.
140. What area have you under vines? Four or 5 acres—quite enough to test the suitability of the soil. We have more than we can use, because we cannot get the fruit away. If we could get our grapes to Sydney I think we could suit the Sydney people, because our grapes come very early. There are grapes at my place at Christmas-time.
141. Have you any land on the other side of the river? No.
142. Is the land on the southern side as good as the land on the other side? No; it is not grazing land at all, but I think there is some possibility of it eventuating in farming.

Albert Coppleson, storekeeper, Wee Waa, sworn, and examined:—

- A. Coppleson. 143. *Mr. Fegan.*] How long have you been in Wee Waa? Eight years.
- 4 May, 1898. 144. Have you any information to furnish to the Committee? When I first came here, in 1890, the population of Wee Waa was about 150. The trade done in the town then amounted to about 240 tons per annum. Last year my own tonnage averaged 30 tons a month. There are three more stores here besides my own, and although they may not dispose of the same amount of goods as I do, I am confident that the tonnage to the outlying districts will amount to 1,350 tons per annum.
145. Where do you get your goods from? From Sydney, Newcastle, Armidale, New England, and different parts.
146. Does it all come through Narrabri? Yes.
147. What is the freight on goods from Narrabri to Wee Waa? About £1 per ton on first, second, and third-class goods. Goods sent from here to Narrabri pay the same amount.
148. If a railway were constructed, I suppose you would look for a reduction of freight? Yes; and it would be a means of getting goods quicker.
149. Do you find much difficulty at times in getting goods here? Yes; frequently in the past it has taken a week or a fortnight, and sometimes three or four weeks, to get goods from Narrabri.

150. I suppose that some of the goods you obtain are perishable goods? Yes; I may state that, on one occasion, I had 2 tons of flour on the road for two months. The flour was spoilt by the rain. A. Coppleson.
151. Can you give an approximate idea of the length of time in a year during which you cannot get your goods as you would like to get them? Of course, if it is too dry the carriers cannot travel quickly because they have to turn their stock out. Last year we only had one carrier coming to the town. 4 May, 1898.
152. Do you supply various stations about Wee Waa with goods? Yes; but some of them get their goods direct from Sydney and other centres.
153. Do you think the construction of the proposed line would result in additional settlement and increased population? Yes. Since the land was thrown open about here—at Merah and other places—the population has increased to a great extent, and that has made a great deal of difference in trade. Not only has the district trade with the town of Wee Waa increased, but the district trade with Narrabri and Newcastle has also increased. As I have already mentioned, when I first came here the population of the town was 150 and now it is about 650.
154. I suppose the quick transit of goods frequently means to you the difference between a profit and a loss? Yes. The present method of getting goods here is not satisfactory. The town would have gone ahead much more than it has done, if we had had a railway. There are many people who would improve their land if there were a prospect of a line coming here. Some people think the line may go to Gurleigh Point and cross the river there, and, of course, if it did it would kill the town. The town would have gone ahead much more than it has done had it been known what course the proposed railway would take. The doubt in regard to that matter has kept us back. I may state that I have examined the figures in regard to the value of the township; the value, including Government property—such as the Court-house—comes approximately to £47,000.
155. I presume the population is still increasing? Yes; the increase in 1890 was 150. I should like to point out that there is a good deal of trade done between here and towards Collarendabri; but another witness will give you information upon that point.
156. What is the highest cost of carriage from Narrabri to Wee Waa? We have paid as much as £2 a ton in very dry and wet times.
157. What would be the average cost? The average for the last eight years would amount to from 1s. 4d. to 1s. 6d. per cwt.
158. Do you know anything about the freight for timber? The freight for sleepers is about the same as the freight for other goods. If a sleeper weighs $\frac{1}{2}$ cwt. it will cost the same as $\frac{1}{2}$ cwt. of other goods.
159. Of the three lines marked on the map, which do you regard as the best? Two of them—the two southern routes to Pilliga. The construction of the green line would kill the town.
160. How? It would cut most of the traffic from the north from it.
161. How far would you be from railway communication if the line marked green were constructed? About 8 miles. We should have to cross the river to get to it. The line would be 6 miles north from the bridge.
162. Do you mean to say that the construction of a line 8 miles from the town will make the line of no importance to the people of the district? It will be of no importance to the people of Wee Waa—in fact it will do us a lot of harm. People who have invested here will go to the wall.
163. In other words, business people here will have to compete with others who will be nearer to the line? They will have no chance of competing.
164. Would you have to pay as much freight over the railway as you would by team? I should, because I would have to pay extra haulage from the line to the town. The haulage from there would be almost as much as it would be from Narrabri. The greatest cost in connection with the carriage of goods is the loading and the unloading.
165. Would you be willing to pay special rates if a line were brought to Wee Waa? Yes.
166. *Chairman.*] What settlement is there up and down the Namoi on this side of the river, from Wee Waa? There is Cuttabri, Cubbo, Coghil, and two or three selections on this side of the river. There are also a good number of people employed about here in log-cutting and drawing.
167. Is it a fact that up and down the Namoi there is a belt of good country from 5 to 10 miles, and at the back of that is the timber country? Yes.
168. Wee Waa, therefore, has the support of this belt of country and of the timber trade of the district? Yes; there is no doubt it would have the support from the southern side, but if we lost the northern side support it would mean that life would not be worth living here. I have no doubt that if there were railway communication here on the southern side the timber trade would be so much extended that all the trade of the district as far as Walgett and Collarendabri would be done from here. I think that if we had a line to Wee Waa it would be a paying one.
169. *Mr. Hassall.*] Then your position is this—that a railway on this side of the river would not intercept any traffic coming in from the northern side, and that you look to the northern side for the principal business of the town? I look for some.
170. Your fear is that a line constructed on the other side of the river would intercept the traffic coming from that direction, and that the country at the back is not sufficiently developed to enable Wee Waa to carry on business as successfully as it has been doing? Exactly.
171. Judging from the evidence you have given, it seems that unless you have a railway on this side of the river, as far as Wee Waa is concerned, you would be as well without a railway at all? As far as I am concerned, I would.
172. *Mr. Fegan.*] I suppose you are not speaking for the people on the other side of the river? No; it would pay them in any case.

John Gray, contractor, grazier, and agriculturist, Wee Waa, sworn, and examined :—

173. *Mr. Hassall.*] Where is your residence? Two miles above Wee Waa, on the north bank of the Namoi. J. Gray.
174. What does your property consist of? 1,800 acres of black soil. 4 May, 1898.
175. What do you devote it to principally? Grazing, sheep, dairying, and cultivation.
176. How much cultivation have you? Nearly 40 acres. I grow wheat for hay, and corn.
177. What is the yield of wheat per acre? It would not pay to grow for wheat, as there are no facilities for

- J. Gray. for getting it to market, but I have grown about 2 acres for use at my place, which has given about 20 bushels to the acre. I have grown wheat now for nine years, and during that time I have only lost two crops, but, with better methods of cultivation and a better understanding of the properties of the black soil, it would not have been a total loss.
- 4 May, 1898.
178. How many sheep to the acre will your property carry? I have run four sheep to 3 acres all through since I have been there. In addition to that I have run from forty to seventy head of cattle.
179. Is the country around you of a similar character to yours? Yes, it is all good country.
180. What do you think of the country on this side of the river? There are large blocks of really good country suitable for agriculture; but there are no facilities for getting wheat to market, and it is not taken up to any great extent.
181. How far back from the river are these blocks? They are scattered.
182. Then whatever settlement might take place, it would mean that one man would be in one part, and another four or five miles away? In some parts a good many settlers would be together. In other parts a large area would lie between them.
183. Are there any large blocks of bad country there? Yes.
184. Which of the routes marked on the plan would be the most suitable for a railway? Either of the lines on the south or north bank of the river. I may say I have been a good deal through the bush, and am able to state that abundance of timber can be obtained for bridges and sleepers. There is a great deal of it, and it could be utilised for the different railways of the Colony.
185. I believe there is an ironbark forest, extending from the back of Narrabri, running some distance east, and going right down to Pilliga? Yes; it is like a belt, and the better country runs into it.
186. I believe a good deal of the timber is pipey, and is suitable for sleepers, but not for bridge-work? That is so. Again with regard to ballast, a good deal of the proposed line would not require ballasting. A large quantity of gravel can be obtained at Mollee. There are outcrops of sandstone between Wee Waa and Cuttabri, which would do for ballast. Nevertheless a great deal of the line would not require ballasting as the country is sandy.
187. Where is the nearest good ironbark? About 10 or 15 miles to the south.
188. What is the cost of conveying a sleeper from here to Narrabri? If the charge were £1 a ton, one sleeper would cost 2s.
189. Which of the suggested lines would be most suitable for conveying timber towards Collarendabri? The line coming from Narrabri West, crossing below Wee Waa.

Walter Coughlan, stock and station agent, Wee Waa, sworn, and examined:—

- W. Coughlan. 190. *Chairman.*] How long have you resided here? A little over two years.
- 4 May, 1898. 191. Have you heard the evidence to the effect that the land on the north side of the river will run a sheep or a little more to the acre? Yes.
192. Do you believe that evidence, and the evidence with regard to the agricultural prospects of the district? I am not too sure that the black soil will grow wheat, but a good portion of it will.
193. You heard it stated that £1 a ton was a low rate on carriage from Wee Waa to Narrabri West? Yes, that is correct.
194. Do you know anything about the scrub country? Yes. From what I have seen of it I think a line along there would almost add a new province to the country. There is a lot of splendid land there, which would all be taken up for agriculture, if we had a line to get the produce away. I know it often happens that scrub land is discarded for years. The same thing occurred in Gippsland, and when a line was constructed the land was rushed for the purposes of agriculture. I believe that most of the land in this district would be taken up if a line were constructed. The great bulk of the scrub land I have seen is of a sandy loam, and would be good for cultivation. I may state that my views with regard to the proposed railway are in unison with those of Mr. Coppleson.

Andrew Hamilton, hotelkeeper, Wee Waa, sworn, and examined:—

- A. Hamilton. 195. *Mr. Fegan.*] How long have you lived in Wee Waa? Twenty-five years. I was a grazier during my earlier residence here.
- 4 May, 1898. 196. Where was your station? For over twenty-five years I was located 3 miles from the river, and for about fourteen years on Pian Creek. I have a good knowledge of the country on both the north and south sides of the river.
197. Do you agree with Mr. Coppleson's evidence as to the progress of the town? Yes; I should like to see the line constructed on the south side of the river. I think it would pay the country and the town itself. My reason for saying so is that we can get timber to-day which can be taken to Collarendabri and Walgett. If the line marked green on the opposite side of the river is constructed, it will ruin the town by taking its trade away.
198. Would a line on the south bank supply as large a number of residents as would the line coloured green? The green line would supply a larger number at present.
199. Is the quality of the land on the south bank equal to that on the north bank? Of course no lazy man would take up scrub land.
200. Seeing that there is a large amount of scrub land on the south bank of the Namoi, do you believe that if the proposed line were constructed, it would induce a number of people to take that scrub land up? Yes.
201. Have you any idea of the quality of the land? It is only fit for the plough.
202. And land fit for the plough, to be of any use, must have railway communication? Yes.
203. Otherwise it is worthless as far as agriculture is concerned, owing to the distance from the market? Yes.
204. Do you get the whole of your stores from Narrabri? Yes.
205. What is the freight? I have paid from 1s. to 2s. per cwt.
206. For how many months in the year have you to pay the higher rate? During the last eight years we have had to pay the higher rate, on an average about three months in the year.

207. Then the average charge per ton is about £1 5s? Yes. I may mention that in 1890 we had to pay the higher rate all the year round. A. Hamilton.
208. Which of the suggested lines marked on the map would suit you? The one which shows the bend near Wee Waa. I would then go almost direct ahead until I struck the blue line near Pian Creek, then I would keep it going right on to Collarendabri; still the dotted line would not be an objection to me personally. 4 May, 1898.

Charles Peter O'Rourke, sawmill proprietor, Wee Waa, sworn, and examined:—

209. *Mr. Hassall.*] Where do you carry on operations? In the district generally. C. P. O'Rourke.
210. Where is your mill? About a quarter of a mile from the town. 4 May, 1898.
211. How long have you been carrying on business? About six months on my own account, but I was manager for two years before that.
212. Do you find business good? Yes, at present.
213. Where is your market? From Merrywinbone, beyond Drilldool, Collarendabri, Mungyer, and round to the Namoi.
214. Where do you get your timber? From Brigalow Creek.
215. Of what description is it? Pine.
216. How far is the timber back from the river? We draw it about 20 miles; the distance is becoming greater every day.
217. Is there any great quantity of it? Towards Pilliga there is an immense quantity. There is an enormous pine forest near Pilliga, which runs to Coonabarabran.
218. Is the ironbark any nearer to you than 20 miles? No; it is all towards the Brigalow Creek.
219. Have you any knowledge of the country on the north side of the river? No; I have never been beyond Weeta Waa.
220. On which side of the river do you think the line should be constructed? On the south side.
221. Would the construction of the line increase your trade? It would to a certain extent in Wee Waa, but I think Pilliga would do me harm, because they could then compete more successfully with me. I may state that since the 3rd March I have sent over 30,000 feet of timber towards Collarendabri.
222. Is timber drawn from here to Narrabri? Yes; small logs are taken from 5 or 6 miles from here. I do not think anyone has any idea of the amount of timber in the scrubs round Pilliga. The forests are of enormous extent, and contain some of the finest timber in the Colony.

Arthur Walter Holcombe, junr., grazier, Cryon, sworn, and examined:—

223. *Chairman.*] Where is your holding? On Block 259, situated on the green line marked on the map. A. W. Holcombe, junr.
224. How long have you been there? A little over twelve months. I have 2,560 acres of land and 1,900 sheep. 4 May, 1898.
225. What sort of country is it? Red chocolate soil and plain open country. It grows myall and white wood.
226. Would the red soil grow wheat? Yes, I think it would grow anything. At Cryon station, on the same sort of soil, they grow cabbages, vegetables, and any sort of fruit.
227. Are any grapes grown about Cryon? No; but they have started a wheat crop this year. I think the country is fit for settlement and for fattening sheep. At present, however, we cannot fatten sheep, because we cannot send them away. The road between Wee Waa and my place is a very dry one—15 or 18 miles without water.
228. How far are you from Wee Waa? Sixty miles; if we had a railway I would send sheep away any day.
229. Where would you put the line if you had the chance? The green line marked on the map goes close to my boundary. I think it is country which would carry a railway. I am on the edge of the red, high ground, on the water-shed between the Namoi and Pian Creek.
230. It does not matter to you whether the line keeps to the southern or northern side of the river when it gets near to your station? No; I may state that I think I could find a track out of flood-reach from here to Boo-Boo, and beyond.
231. What is the shortest width of flooded country you know of on the Namoi? Except in very high flood I think it is about half-a-mile from the bridge. The flooded country is from 5 to 10 miles wide.

Charles Brennan, grazier, near Wee Waa, sworn, and examined:—

232. *Mr. Fegan.*] Have you any statement to make? I own land on both sides of the river east from Wee Waa. I have 3,600 acres of land, and have run over a sheep to the acre for over seven years. At present I have over 4,000 sheep. I have averaged 70 bales of wool for the whole period to send to Narrabri. In return I have had 6 or 7 tons of stores. I have averaged 1,500 fat stock, mainly for the Sydney market, every year. When my stock died, owing to the drought, I sent into other districts for other stock. This is a good fattening country. I have sent fat stock away every year. I know the northern side of the country for 40 or 50 miles. It is all fattening country, and will send stock to the markets. C Brennan.
233. Do you graze any cattle? Yes; 80 head. I would send some to market now if we had a railway line. 4 May, 1898.
234. Do you find the want of a railway an inconvenience? Yes, for small holdings, with one or two trucks of fat stock. I myself am all right, because I am only 25 miles from Narrabri; therefore I have a fair service. Of course, if I had a railway I would send a truck or two more.
235. Which of the lines marked on the map would suit the people, not only of Wee Waa, but of the district as a whole? Taking Wee Waa into consideration, I think the one on the southern bank should be connected with the dotted line.
236. Do you think that would be a better route than the one on the southern bank? I think, on the whole, it would.
237. Would that serve the town of Wee Waa as well as the other? It might not serve the town so well; I think the one marked red connected with the dotted line would be the best.

- C. Brennan. 238. Have you ever tried agriculture here? No; I should like to explain that the timbered country out here is different from the timbered country through which the railway passes to Narrabri, as that is a sandy desert. There is timbered country between Wee Waa and Pilliga, which is fairly good land. There is as much as 4,000 acres in a patch of, comparatively speaking, good land.
- 4 May, 1898. 239. Are you satisfied that the country you are living on is equal to any fattening country you know of? It is almost equal to the best land in Riverina, and it is heavier carrying country than the Riverina country generally.
240. Do you prefer this country to the Riverina country for fattening purposes? Yes; I think the country from Narrabri to the end of the proposed line will carry more stock than the Riverina—that is taking 1,000,000 acres of land in an ordinary season.

FRIDAY, 6 MAY, 1898.

[The Sectional Committee met at "Baker's Hotel," Pilliga, at 11 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Narrabri to Pilliga.

John Henry Robertson, storekeeper, Pilliga, sworn, and examined:—

J. H.
Robertson.
6 May, 1898.

241. *Chairman.*] How long have you resided in Pilliga? Nine months.
242. Have you a good knowledge of the district? Yes.
243. Do you wish to make a statement? I desire, before giving my evidence, to inform the Committee that, in my opinion, and also in the opinion of the people of Pilliga, the evidence which will be given in detail at Walgett will make out the case on behalf of Pilliga more satisfactorily than we in Pilliga can make it out ourselves. The Walgett people have all the information necessary. Walgett has always been regarded as the objective point of the railway, and the league there has had opportunities of obtaining information which the people of Pilliga do not possess. I also desire to emphasise the fact that the weather which prevented the Committee from keeping their appointment here, has prevented the gathering to-day from being as large as it otherwise would have been. Men who came in for some distance were unable to remain.
244. Where do you get your goods from? Narrabri.
245. What do you pay for carriage? From 2s. to 2s. 6d. per cwt., or £2 to £2 10s. a ton—an average of £2 5s.
246. Do you know how much stuff comes to Pilliga? I should say about 300 tons.
247. Where does the Pilliga wool go? To Narrabri.
248. Then all the stuff coming to Pilliga as a centre goes to Narrabri? Yes; I have no statistics with regard to the amount of wool passing through.
249. Where does the travelling stock passing through Pilliga go to? Narrabri. I hand in a statement of information which we laid before Mr. Harper, which I believe was correct then, and will fairly well explain our position to-day:—

Information compiled by the Pilliga Progress Committee concerning the probable traffic on the proposed Railway from Narrabri to Pilliga, with other facts bearing upon the same. That was presented to Mr. Harper recently.

For the year ended 31st December, 1896, there were in the Pilliga sheep district 560,881 sheep on which assessment was paid to the Pilliga Pastures and Stock Protection Board, and 144 stock-owners.

The returns for 1897 are not available, but it is not considered that the number has decreased. Of the above number 77,437 may be deducted, as presumably their closest trucking station would be Narrabri, leaving 483,444 sheep to the Pilliga district proper whose wool would be carried by this railway. The number of large stock may be given as 17,256 after making a similar deduction. The yield of wool from the above number of sheep is estimated at 1,295 tons. The number of fat stock annually sent to market is estimated as follows:—Cattle, 3,000; sheep, 120,861. The business people comprising three hotelkeepers, two storekeepers, saddler, two blacksmiths, &c., estimate the quantity of loading they received per annum as 350 tons. The output of sawn timber from the four saw-mills in Pilliga township and neighbourhood is given as 440,000 feet for the previous year. These mills have only worked intermittently, and could turn out three times that quantity. A certain proportion of this timber would be carried by rail both as logs and sawn stuff. The pastoral holdings which would support the proposed railway are as follows:—On the north bank of the Namoi, from the point 20 miles above Pilliga to 20 miles below Walgett, Merah, Drilldool, Cryon, Burren, Gorian, Mercadool, Bundabarema, Merrywimbone, Oreel, Pockataroo, Eurie Eurie, Kercargo, Dungalear, Llanillo, Gingie, Milrea, Boorooma.

On the south bank of the Namoi from the same starting point to the same terminus we have Cuttabri, Bullerama, Wangan, Keeleendi, Bungle Gully, Come-by-chance, Terembone, Billerroy, Tourable, Bunble, Nebrea, Urawilkie, Calga, Gorianawa, Denby, Kunbri, Gibbian, and the Baradine Selectors, Wingadee, Bullarora, Goangra, Warragan, Ulumbie, Euroka, Combogolong, Polly, Brewam, Wangrunally, Carinda, Warren Downs, Bogewong, Mourabrie, Breewan.

The majority of the stations lie within the Walgett and Coonamble Stock Districts but would use this railway, as being their nearest point of connection, in fact three-fourths of their wool at present is trucked at the Narrabri terminus.

The average tonnage of shearing supplies and station requirements is estimated at 30 tons per station per annum. As there are thirty-two stations above enumerated this would give a total tonnage of 1,560 tons.

The area of Crown lands available for settlement within the Pilliga Police District as per latest return collected by the Government Statistician's Department is given as 1,344,256 acres.

The land comprises, on the south side of the Namoi, extensive and valuable timber forest as well as land highly suitable for agriculture. It is considered that wheat-growing would receive a great stimulus from the construction of this railway.

On the north bank of the Namoi the land is almost entirely high-class grazing country with rich alluvial black soil.

Nearly, if not all, the station leaseholds enumerated both on the Namoi and Barwon reach the term of their present tenure within three years, and there will be a great demand for this land in small holdings promoting closer settlement and larger production.

The population of Pilliga township is 150 souls; of the Pilliga Police District, about 1,500.

I may explain that those who could have given information with regard to the farming possibilities of the district have been in, but have returned home because of the wet weather. They are farming on pine blocks and coolabar country. The operations have only extended over two years, but the hay crops have been satisfactory, and so, I understand, have the wheat crops; but the long carriage which is necessary to ship a wheat crop from here would preclude any extension in that direction, without better means of communication. I make this statement, of course, on hearsay, as I am not a farmer myself. I may say, however, that I have seen most of the men to whom I have referred, and have spoken with them. They have come from the mallee country in Victoria, and have all told me that they prefer this country to that.

250. What is your annual rainfall? About 24 inches.

251. *Mr. Hassall.*] Do you know anything about the timber industry in this district? There is only one mill working in the town; but there is a witness here conversant with the timber trade, and he will be able to give evidence.

J. H.
Robertson,
6 May, 1898.

Patrick Kelly, saw-mill proprietor, Pilliga, sworn, and examined:—

252. *Mr. Hassall.*] Have you a knowledge of the timber trade and resources of this district? Yes; the timber consists mainly of pine and ironbark, and is used principally for house-building and bridge work.

253. What is the extent of the timber country? I should say it is from 70 to 80 miles square.

254. What are the boundaries? It commences on the other side of Cuttabri, then goes through Pilliga, up to Coonabarabran, and out towards Coonamble. It consists of first-class pine and ironbark.

255. How far from Pilliga is the pine and ironbark really good? Running back from the river towards Coonabarabran we have first-class pine within 2 miles of the town.

256. Is it not a fact that you have one of the finest pine timber forests in the colony? Yes.

257. Where is your principal market for it? My market is down the river as far as Walgett, following the Barwon to Collarendabri and Goodooga, including all the country on the north bank of the Meehi, within a radius of 60 miles.

258. Is the demand fairly good? Yes, in good seasons. In times of drought it is not; and we have had great droughts here during the last three or four years. We cannot get timber away when there is a drought.

259. I presume it would take many years to work out the timber, even within 10 miles of the town? Yes, a good many years.

260. Do you employ many men? Eight or nine all through the year, and sometimes more.

261. Are there many men employed in the hauling of timber? Yes; there are also some employed in other work, such as bridge-work.

262. Is there anyone else engaged in the trade? Yes; about 6 miles out—Mr. Morrow. I have one mill here, and another 10 miles away. The Walgett people have a mill, and they come to within 9 miles of Pilliga for pine. The Narrabri people also come to within 20 miles of Pilliga for ironbark. The people in the whole of the country lying north-west from here towards the Queensland border have to come here for timber. Timber is carted from here, now, a distance of 160 miles.

263. What is the cost of conveyance from here to Walgett? About 13s. 6d. per 100 feet,—that is for pine, and it includes being cut up at the mill.

264. What is the price at the mill? From 8s. to 9s. per 100 feet. That leaves about 5s. 6d. per 100 feet for cartage.

265. What would 100 feet superficial run into? 100 feet superficial of pine weighs 1 ton 13 cwt., and ironbark goes about two tons 14 cwt. to 100 feet superficial. Roughly speaking it costs about £1 10s. a ton for carriage to Walgett. When the roads are good, however, and waggons are plentiful, we can get it conveyed at the cheaper rate which I have mentioned; but in bad times we have to pay 8s. or 9s. per 100 feet superficial. The price varies according to seasons. At times the country gets so bad that we cannot carry at all.

P. Kelly,
6 May, 1898.

Stephen Dempsey, selector, North Lynne, near Pilliga, sworn, and examined:—

266. *Mr. Fegan.*] What property do you hold? I have a leased property of 15,000 acres in the scrub? I also have a property where I am living of 7,000 acres, making 22,000 acres in all.

267. How long have you lived in the district? Sixteen years.

268. To what use do you put the 15,000 acres in the scrub? Running cattle.

269. Is it good grazing country? No; it is too scrubby.

270. Have you a knowledge of its value if the scrub were taken off? Yes; I think it would make good agricultural land, and would also become good grazing land. I have cleared some of it, and the result has been satisfactory. I have grown as good wheat as any I have ever seen in my life.

271. How many acres do you put under wheat? Five acres.

272. What was the result? I only allowed a quarter of an acre to ripen, but it was very satisfactory. I have had a crop of hay every year I have put it in, and there have been some very bad dry seasons.

273. Have you ever tried more than 5 acres for wheat? No.

274. How many tons of hay did you get per acre? Last year I cut 3 tons of good hay per acre off it; the hay stood between 4 and 5 feet high.

275. Have you heard the evidence in reference to the quality and quantity of the timber of the district? Yes, I can corroborate that evidence.

276. You say that, without being cleared, your property is not good for grazing? That is so.

277. How many cattle or sheep to the acre would it run if it were cleared? I could not say, as I have only cleared a little piece. I think, however, that some of the best of it would carry equally as much stock as any of the black country.

278. What about the 15,000 acres of scrub land? I think that of that fully 5,000 acres are good for nothing.

279. What would it cost per acre to clear the land and make it ready for the plough, and also for grazing? I have been asked 1s. 6d. an acre to ring it, and cut all the undergrowth out of it—that is, merely to ring it and cut the scrub out; and it would cost £2 per acre to clear it fit for the plough.

280. So that a man with very little capital could not come here and settle down? He could if he got the land for a mere nothing, and was able to clear a little at a time. If he wanted to clear it straight away he would require capital. After clearing it, I think he would find it to be good agricultural land.

281. How many sheep are you running? I have not put sheep on the southern side of the river, the country not being suitable on account of the large amount of grass seed.

282. How many cattle do you run? About 300. During the last two years I have been reducing instead of increasing, owing to the dry seasons.

283. Do you send any fat stock to Melbourne? No.

284. Is the country well watered? In some places it is; in other places it is badly watered. In some places,

S. Dempsey,
6 May, 1898.

- S. Dempsey. places, on the Cubbo Creek, you can get water by sinking for it a depth of 2 or 3 feet. I should like to add that, in my opinion, some of the best agricultural land is where the heaviest timber grows. Of course in that case it might cost more to clear than it cost to clear mine.
- 6 May, 1898. 285. Would it not pay you to utilise the ironbark there? Yes. Of course, you might make a little out of the timber when you clear the land.
286. How many sheep have you on the northern side of the river? 5,000.
287. Can you give any idea of the clip? About fifteen bales to 1,000 sheep, or seventy-five bales in all.
288. Where do you send your wool? To Sydney, *via* Narrabri. I get my supplies from Narrabri in return.
289. Do you get your stores direct from Narrabri? Yes.
290. What do you pay for them per cwt.? I have never paid less than 2s. A fair average price would be 2s. 6d.
291. Where do you send your fat stock? To Narrabri.
292. Does driving sheep to Narrabri depreciate their value? It does. Of course, if there is plenty of grass it does not do them much harm. At the same time it is inconvenient, inasmuch as if we had a railway we could send them away in small quantities.
293. Do you think the construction of a railway line would induce more settlement? Yes; I believe many people would settle in the scrub country for the purpose of going in for agriculture. I have heard settlers from Victoria say that the land is equal to anything in Gippsland. A Victorian selector at Mercadool told me that if there had been a railway here he would have settled here before going there.
294. Have you any knowledge of any people who would be likely to settle here? I know of some people who would. At the present time, about Boggabri, they are giving £1 an acre for conditional purchase and conditional lease land, which, I am sure, is no better for agriculture than the land in these scrubs. They are buying it for the purpose of cultivating it.
295. Is the land in this district, which you say is of no value, near the river, or a distance from it? It is a distance from it. I have no doubt the land in question would make fair agricultural land if it were once cleared. At present, however, the timber is so thick that nothing can be grown there.
296. Have you to sink any depth for water on the northern side of the river? Yes; at my place, and it is salty when you get it; 120 feet is the average depth to sink before you can get good water.
297. Have you anything further to say? I think that if a line were constructed a large number of people would settle on the scrubs if they could get them on reasonable terms. If a line is not constructed I am afraid the Government will get all the land back. It will soon get mine back if I do not get something better than I have been getting out of it, for I have been losing money all along.
298. How far is it from Pilliga to Coonamble? Fifty-two miles.
299. What kind of a road is there? Passing from Pilliga you will be in scrub country for the first 26 miles; for the next 3 or 4 miles you get into open country—pretty good country; then into the scrub again, and you remain in it until you get to the open black plain, which is about 10 miles from Coonamble.

SATURDAY, 7 MAY, 1898.

[The Sectional Committee met at "Hawkins' Hotel," Come-by-Chance, at 8 p.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Narrabri to Pilliga.

Charles Edward Evans, senr., Bungle Gulley, sworn, and examined:—

- C. E. Evans, 300. *Chairman.*] Where is your selection? About 2 miles from Come-by-Chance.
- senr. 301. What area have you? Originally, I had about 108,000 acres; now I have about 100,000 acres—that is including selections which have gone back to the run.
- 7 May, 1898. 302. What can you run on your 100,000 acres? There are now 35,000 sheep upon it.
303. Do you consider it fairly stocked at that? No; we have shorn about 52,000 sheep per annum, until last year, when there was a drought. I consider the country will run 2 acres to the sheep. One year we shored 80,000 sheep, but that was too many.
304. Where do you send your wool? To Sydney, *via* Narrabri.
305. What do you pay for the carriage of goods to Narrabri? The price varies; about 3s. per cwt. or £3 per ton.
306. Do you get your stores back from Narrabri? Yes; nothing goes from here to Walgett. It all goes to Narrabri, and all our goods come back that way.
307. How far is it from Come-by-Chance to Coonamble? Fifty miles.
308. How far is it from Come-by-Chance to Narrabri? Ninety miles.
309. How far would you go south from Come-by-Chance before you struck the Pilliga scrub? About 4 miles. The road from Come-by-Chance to Coonamble is not quite direct; it makes a bit of a detour, and passes round the scrub. About 12 miles from here the scrub lies on the left-hand side; but from there to Coonamble the road leaves it absolutely.
310. What kind of timber is the scrub? Pine, box, rosewood, and yarran. There is no ironbark about here, although there is some back from Pilliga.
311. What sort of soil is it? A kind of red loam.
312. Is it any good? I believe it is good agricultural soil; there are several selectors upon it.
313. Do you know anything about their circumstances, or what they are doing with the land? Some of them are farming, and also keeping sheep in the scrub. I was in that district six months ago, and I saw a man there who had a very good crop of wheat.
314. What would be the rate of freight from here to Coonamble, supposing there were a railway to that place? About 2s., or £2 10s. a ton for the 50 miles.
315. Do you know where the proposed line is located? Yes.
316. How far to the south of Come-by-Chance? 200 or 300 yards.
317. On high country? Yes.

318. How far can you follow the surveyed line from Come-by-Chance towards Walgett, before you get into the flooded country? We strike flooded country about 20 miles from here, and 14 miles from Walgett. The water runs westerly towards the Castlereagh; but I am not sure it does not go into it.
319. Is there a heavy run in it? It has a steady flow, enough to let you see it is going. In one or two of the warrambools there is a decided current.
320. How far are you from Walgett? Thirty-seven miles.
321. What would be the freight from Walgett to your place in an ordinary season? About 1s. 6d. or 2s. per cwt., or £2 per ton.

C. E. Evans,
senr.
7 May, 1898.

Arthur Colless, selector, Come-by-Chance, sworn, and examined:—

322. *Mr. Hassall.*] How long have you been resident here? Thirty-six years.
323. Do you know the surveyed line to Walgett? Yes.
324. Can you corroborate the evidence of Mr. Evans? Yes.
325. I believe this country was at one time principally held as cattle runs? Yes.
326. And since then it has been transformed into sheep runs? That is so. There are a large number of small holdings.
327. Has settlement increased very much during the last ten years? Wonderfully.
328. Has any land which has been made available been eagerly competed for? Yes.
329. What class of selectors are coming here? They are principally from Victoria; men of means who seem to be doing well, and who have improved the country.
330. Have your trade relations from this part of the country been towards Maitland? Yes, always; Maitland is our natural outlet.
331. Would a railway to serve this district naturally come from Narrabri? Yes.
332. Would the extension of the railway to Coonamble be of any benefit to the district? It would not suit so well for the reason I have already given,—our business relations being with Maitland and Newcastle.
333. What width of flooded country is there along the Namoi, from Pilliga to Goangra? There is very little width from Pilliga to Cumberdown, where there is a greater extent of it. The banks of the river are liable to inundation until you get to Cumberdown, where the water spreads out from the lignum swamps lying between there and Walgett.
334. Is there any prospect of making a road in this part of the country? No; there is a scarcity of metal.
335. Where is the nearest metal to be found? Narrabri, I think.
336. Do you look upon this as a pretty sound district? Yes, and the smaller settlers are doing well.
337. Do you know with whom their trade relations are carried on? With Maitland.
338. Where does your wool go to? Generally to Morpeth, to be shipped from there to Sydney, and sometimes to England.
339. You naturally send it to the nearest port? Of course. I have, however, sent it twice to England; but the last time it went to Morpeth by train, and thence by boat.
340. Do you ship from Newcastle to England? No; from Morpeth.
341. You do not go to Sydney at all? No.
342. I think the wool is principally sent to Sydney by rail? Yes, a good deal of it is sent by rail.
343. I presume contracts are entered into with the carrying firms to convey it? Generally; they name a specified rate to cover all expenses.
344. Where does Mr. Evans ship his wool? Generally speaking, when it goes to England, it goes direct to the port of Newcastle.
345. Do you look upon a railway from Narrabri to this district as one which would give you the easiest access to a port of shipment? Yes.
346. And any line running to the Western line, and going that way to Sydney, would not be so economical to you as the other? No.
347. Do you depasture many sheep? About 14,000.
348. What is the general run of the selectors holdings? 2,560 acres. Some have more.
349. What is the carrying capacity of the country? About one sheep to 2 acres. It is good, sound, healthy country; there is no foot-rot and no fluke.
350. Do you look upon this country as suitable for close settlement? Yes; judging from my experience in the past.
351. Have you any business relations with Walgett? No; except in land matters.
352. Do you approve of the rates of carriage mentioned by Mr. Evans? Yes; I think they are correct.
353. Where do you get your stores from? Maitland. I desire to state, with regard to agriculture, that I believe the possibilities of the country are altogether under-estimated. I have not cultivated anything myself, but I have seen what my neighbours have done. One individual has been cultivating for five or six years, and to my knowledge he has had four good crops. I think a great deal of the country here will, if proper means of communication are provided, be used by agriculturists.

A. Colless.
7 May, 1898.

William Arthur Colless, storekeeper, Come-by-Chance, sworn, and examined:—

354. *Mr. Fegan.*] How long have you been carrying on business here? About four years.
355. Where do you get your stores from? Mostly from Newcastle; also a little from Sydney.
356. What does it cost you for carriage from Narrabri? Two shillings to 2s. 6d. per cwt.
357. Have you ever had higher rates? Yes, at times, as much as 3s. and 3s. 6d.; the average, taking the year round, is from £2 to £2 10s. per ton.
358. Have you any information to give in reference to the necessity or otherwise of a railway being constructed to this part of the country? We are a long way from market, and railway communication would give an impetus to closer settlement, and, necessarily, to trade generally.
359. Are you a landholder here? No; I may state, however, that having lived on the land for many years I can corroborate the evidence of Mr. Colless, senr., in reference to carrying capacity, and also in reference to the suitability of the ground for closer settlement.
360. Do you do any trade with Walgett? No.
361. Where do you send your goods to? Mostly about this district.
362. Do you go as far as Pilliga? No; I go about 15 miles round.
363. Are the roads very often in the condition in which they are at present? When we get rain they are.
364. Have you any idea what the annual rainfall is? Nearly 27 inches.

W. A. Colless.
7 May, 1898.

Morris Russell, Post and Telegraph Master, Come-by-Chance, sworn, and examined:—

- M. Russell. 365. *Mr. Fegan.*] How long have you been at Come-by-chance? Three years.
 7 May, 1898. 366. Have you any statement to make in regard to the progress of the district? From what I know of the people, I think they are a most progressive lot. They are all in very good circumstances as far as I know, and they have come to stay.
 367. Can you give us a statement as to the present revenue of the post-office, compared with what it was three years ago? I am able to state that it is increasing. In the three years it has increased nearly 10 per cent.
 368. Are your mails regular? They are very irregular in wet weather. Half an inch of rain will delay the mail three or four hours.
 369. What has been the delay during the recent rainfall? The delay, yesterday, of Narrabri coach carrying the Sydney mail was twelve hours.

MONDAY, 9 MAY, 1898.

[*The Sectional Committee met at the Court-house, Walgett, at 3:30 p.m.*]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Narrabri to Pilliga.

Isaac Collins, grazier, Barwon Vale, near Walgett, sworn, and examined:—

- I. Collins. 370. *Chairman.*] How far is your place from Walgett? Ten miles towards Brewarrina.
 9 May, 1898. 371. What area have you? My sons and myself have 11,000 acres.
 372. Do you use it for pastoral pursuits? Yes.
 373. What number of stock have you? 8,000.
 374. What amount of wool do you send away? About 36 tons per annum, but I have a property which has been rung, and I expect it will shortly carry more.
 375. Do you send any fat stock away? Yes; if we had the use of a railway I could keep a great deal more sheep, because, when there was a drought I could truck them to Sydney and sell them there, or I could send them to some place to depasture.
 376. Where do you send your wool? To Sydney.
 377. Which way does it go? To Narrabri by road, and then by rail.
 378. What does it cost you for road carriage to Narrabri? From £3 to £3 10s. per ton; I would average it at £3 5s.
 379. Is that the cheapest way you can approach the railway system of the Colony? Yes.
 380. Have you ever sent any to Dubbo? No; it has always gone to the North-western line.
 381. Do you regard that as your natural outlet at present? Yes, and that is 140 miles from the nearest railway station.
 382. Do you ever send any wool down the river? I did a few years ago, but it was too expensive.
 383. How long have you lived on the river? Eight years.
 384. How often have you sent your wool down the river? About three times.
 385. Where did you send it to? To Bourke.
 386. What did it cost you? It all depended on whether the boats got over the lock at Brewarrina. If they got over at Brewarrina it was 10s. cheaper; otherwise it was £3 5s. or £3 10s.
 387. Then when the river was up you got your wool to Bourke, including insurance, for about £3 5s. per ton? A little more than that,—say £3 10s. a ton.
 388. Could you send your wool every year by the boat? No. During the last three years there has been no chance of doing it. In some instances the wool has been left on the river bank; it could not be taken away owing to the river going down.
 389. What about the previous five years? There were two years in which I might have sent it during that period, but it was too expensive, and I preferred to send it to the railway at Narrabri.
 390. Have you anything further to say? Owing to the liberal Land Act we have had a number of men with small means settling on the land. If they get a railway, and if they have three or four trucks of sheep to send to Sydney, they will be able to send them and obtain a return of their money in ten days. That would be one means of keeping them on the land. If we had had the same liberal land law in existence when I first took up land we should have had 250,000 more people in the country. Again, if we had a railway we should have the benefit of freetrade; but we never know what freetrade is here. I desire to give the Committee a practical example of what railway communication means to me. About two years ago I had 2,000 splendid wethers, valued at £58. I had to part with them. It cost £25 to get them to Narrabri, and when I got back again I found I had £2 11s. for them. If we had had a railway I should have had 6s. each for them.
 391. Supposing a railway is constructed, do you think there will be any probability of wheat being grown in the district? I think so; a good many ploughs and farming implements have been ordered by newcomers for farming purposes. Two years ago it was quite a treat to see a plough in this part of the country.
 392. Have you cultivated anything yourself? I have not; I have had too much to do in clearing the scrub.
 393. Have you anything further to tell us? I think a railway from Narrabri to Walgett will pay from the commencement.

Robert Dugan, homestead lessee, Milrae, near Walgett, sworn, and examined:—

R. Dugan.
 May, 1898.

394. *Mr. Fegan.*] How long have you lived in the district? Nine or ten years.
395. How many acres do you hold? 10,240, on the other side of the Barwon, 35 miles from here.
396. Have you any knowledge as to the navigableness of the river Barwon? Yes; I have been here for 9 nine or ten years, and I have always got my wool away by the river, excepting twice, when I took it away by team. I used to wait for the steamer; you could not always depend upon it. I did not care about the steamer, however, inasmuch as you often had to tranship at Brewarrina, and the wool was thrown out on the bank, with the result that if there was any rain it was spoilt.
397. Have you heard the evidence of Mr. Collins in reference to the river? Yes.
398. Do you endorse his statement? Well, the river at his place and at mine is different; the further you go down the better the river gets. Sometimes they can get from Bourke to Brewarrina, and no further. At other times they can get from Brewarrina to what they call Collaroy, and no further, in consequence of the rocks.
399. What did it cost you to send your wool away? £2 10s. a ton for freight alone, delivered in Bourke—that is not including insurance. I do not know what the insurance is.
400. I presume 10s. a ton is placed upon your wool for re-handling, if you cannot get over the rocks at Brewarrina? Yes.
401. When you paid the £2 10s. a ton, could you get over the rocks? If you can get right through it is £2 per ton; but it is very seldom that can be done.
402. Then we must come to the conclusion that you had to pay the extra 10s. because they could not get over the rocks? Yes.
403. Where do you send your produce? To Bourke.
404. If a railway were constructed from Narrabri to Walgett would it assist you? I would then send my produce to Narrabri, and thence to Sydney.
405. How would the line benefit you? In several ways. I send about 100 bales of wool away every year. If we had a railway I could stock more heavily, and I could send very much more wool away by train than I do now. If I had an outlet during the drought, I could clear off my surplus stock. Sometimes the stock routes are very dry, and you cannot get your fat stock away by road.
406. How much wool do you send away? About 21 tons per annum. I also dispose of about 2,000 sheep per annum. Sometimes I sell them as stores, and sometimes as fats. Even if I had no fat sheep I have other saleable sheep which, if there were a railway to Walgett, I could boil down and send along with the skins to market.
407. Have you any boiling-down establishments here? No; but I think it would be a good "spec." to establish one.
408. Are there not railways in various parts of the country where stock and sheep are lost, and yet boiling-down factories have not been established? They have boiling-down factories in Bourke, and in dry weather they send large quantities of tallow and skins to Sydney. If they do not, I do not know what they are thinking about. Personally, I would just as soon get my produce away by teams as by river.
409. Why? Because the teams come right to the door for it. If it goes by steamer I have to draw for several miles, and then stack it on the bank until a steamer comes along, and that may mean a delay of a week or a fortnight.
410. Taking it for granted that a line will be constructed to Walgett, what will it cost you to bring your wool by teams to Walgett? I do not know; probably I should cart it myself. I think I could do it at £1 a day for a team. It would take me about four days to deliver about 6 tons.
411. And if you had to pay a carrier it would cost you more? Yes; it would cost me about £1 a ton.
412. Would you send your wool to Sydney? To Walgett and thence to Sydney.
413. Would that be a benefit? Yes, because I would get it delivered more quickly, and I think more cheaply.
414. I suppose you would not send to Newcastle? It would have to go by way of Newcastle.
415. Do you send to an agent? I send to a woolbroker.
416. Have you shipped any wool to England? Yes.
417. Supposing you were shipping direct to England, where would your nearest port be? Newcastle.
418. Which would mean 100 miles less carriage? Yes; I should always ship to the best advantage; but there are other ways in which a railway would suit me. For instance, if there was a ram sale coming on in Sydney, there is no doubt I should go to it if we had a railway. If I bought stock there at the present time, I should have 140 miles or more to drive them before getting them here. The Railway Department is at present losing my trade so far as that is concerned, because it does not pay me to go down. Again, in a dry season I might want a few tons of forage to feed stock; but it is too risky to give it to a team to carry because before you get it up the weather may break, and it will be left on your hands. If we had a railway we could order the forage to-day, and get it up within a week at the outside. Again, I could carry very much more stock on my land, because I would have an outlet to which to send them.
419. Which way does your wool go when carried by team? To Bourke.
420. How many miles is that by road? About 140.
421. Do you take it yourself, or do you pay for it? Sometimes I pay for it, and sometimes I send my own team.
422. What does it cost you when you send it by road? £2 15s. a ton. I think I would sooner pay £2 15s. a ton by team than £2 10s. per ton by steamer, because of the way in which it is knocked about.
423. How far is it to Coonamble? About 100 miles.
424. *Mr. Hassall.*] Would a railway to Pilliga alone be of any service to you? I do not think so.
425. Would it shorten the road travelling? Not materially. Personally, I would take no interest in it.
426. *Mr. Fegan.*] What is the furthest distance at which a railway would be of any benefit to you? Walgett, which is 35 miles from my place.
427. Would it be a benefit if it were further off? One to Brewarrina would slightly benefit me.
428. How far are you from Brewarrina? Sixty-eight miles.
429. Would a line 40 or 45 miles away be of any benefit to a man following your calling? Yes; you can always take sheep from 30 to 50 miles by road, let it be never so bad.
430. It would mean a difference to you of 45 miles compared with about 110 miles? Yes.
431. What is the distance from Brewarrina to Bourke? Seventy miles.

- R. Dugan. 432. What is the distance from Walgett to Bourke? 170 miles.
 433. What is the distance from Walgett to Coonamble? Seventy-five miles.
 9 May, 1898. 434. What is the distance from Walgett to Narrabri? 132 miles.
 435. How far are you from Coonamble? About 100 miles.

Robert Henderson Duncan, Narran Point, Walgett, sworn, and examined:—

- R. H. Duncan. 436. *Mr. Hassall.*] In which direction do you live? Sixteen miles west.
 437. Have you a frontage to the river? Yes.
 9 May, 1898. 438. What area do you hold? A homestead lease of 10,240 acres.
 439. Is it stocked with sheep? Yes; I have 4,700 sheep at the present time, but it would carry more than that in good times.
 440. Can you corroborate the evidence of Mr. Dugan? Yes.
 441. If a railway were within reasonable distance could you send away one or two trucks of fat sheep when they were fit for market? Yes.
 442. Would a railway to Pilliga be of any service to you? It would not be of much more service than the present line to Narrabri.
 443. How long have you been living in the district? Sixteen years.
 444. Have you had any experience of farming and gardening? Yes; I produce a sample of oaten hay grown on my lease, also of maize, wheat, and oats, grown on my lease. Of the oaten hay, I have cut over 3½ tons to the acre this year.
 445. How many acres had you? One and a half. I cannot speak very favourably of the maize, as the blight injured it.
 446. Do you look upon this as a suitable locality for growing maize? Yes; if you have a fair season. With regard to the oats I am informed it will go 40 bushels to the acre.
 447. What about the wheat? I had a bad sample of seed, but the result shows that wheat can be grown. I have grown three previous crops with very fair results.
 448. Do you think wheat would be a reliable crop in this district? Not every season, unless the land were more broken up. If we had more settlers and the land were broken up, I think we should have good wheat and oats grown.
 449. What sort of soil have you on your holding? It is inclined to be chocolate. It was thickly timbered land, and I cleared it. It was chiefly sandal-wood that I cleared, also some belar and coolabar.
 450. Have you ever tried farming by means of irrigation? Yes, a little.
 451. Did you have any success with it? Yes.
 452. Do you think there is any prospect of much irrigation being carried on on the river? Yes; eventually if settlement comes about; but there is not much being carried on now.
 453. Are you living on the river? Yes; right on the bank.
 454. What is your experience of the river as a mode of conveyance? It is very good when it is up, but there is no depending upon it.
 455. How many times would it have been possible for you to get produce away by the river in a given number of years? About every other year. You cannot rely on a full river every year. The river may be impassable for two, three, or four years at a stretch.
 456. Therefore, there is no dependence to be placed on the river as a means of carriage? No.
 457. I suppose it would not suit you to have your wool lying on the banks for any length of time? No; we should have to get it away by teams.
 458. Would a railway in any other direction suit you as well as one from Narrabri? No; my business relations are with the Hunter River valley, Maitland, Newcastle, and Sydney.
 459. Do you know anything of the country between Walgett and Narrabri? I have been over it once or twice.
 460. Would you call the country on the south bank of the Namoi good country all the way through to Narrabri? It is fairly good, except in the scrubs.
 461. Do you think the open country would be taken up before the scrub? It would depend on whether the man taking it up had the means of improving the scrub land and putting it to profitable use. As it is, it is not of much good, except for the timber.
 462. Do you wish to say anything further? I may state that on two occasions I have grown grapes, pears, peaches, nectarines, quinces, oranges, and melons. I have also grown cabbages as high as 3 lb. weight.
 463. Where do you get a market for them? Locally.

Robert John Polt Higgins, manager, Warren Downs, Walgett, sworn, and examined:—

- R. J. P. Higgins. 464. *Chairman.*] How long have you resided in the district? Twenty-two or twenty-three years. Warren Downs is situated south-westerly from Walgett, beyond the Castlereagh.
 9 May, 1898. 465. How far are you from Coonamble? Seventy-five miles.
 466. Did you ever send any wool that way? Yes; once to Quirindi. I usually send to Narrabri and Nevertire.
 467. What is the distance of the homestead from Nevertire? 114 miles.
 468. What would you pay for carriage from your station to Narrabri? £3 10s. a ton. A railway into Walgett would save me 74 miles of land carriage; but some of our land lies closer to Walgett than that. A railway to Walgett, estimating the land carriage only, is 35 miles better than one to Coonamble. Walgett would be our best outlet.
 469. Are you prepared to express an opinion with regard to any crops in the district? Yes; I have grown wheat and oats for hay. My experience is that one crop out of four fails. The rainfall at Warren Downs is 2 or 3 inches more than it is at Walgett. I have tried a small patch of lucerne, and I found it succeeded very well; but it was partly irrigated.
 470. What do you call a crop? Two tons to the acre.
 471. What kind of soil do you grow upon? Chocolate soil.
 472. How far are you from the river Barwon? The shortest distance is 9 miles.
 473. Do you ever send your wool down the Barwon? I have sent it down twice.

474. Was that method of carriage satisfactory? No.
475. Why do you prefer land carriage? When the Barwon is high enough it prevents us getting to it in consequence of it flowing into a branch.
476. What is your experience of the traffic on the river? I have sent by river twice; but it is more costly to send that way than by road, and it is also more uncertain.
477. Do you look upon the river as a satisfactory outlet for the district? No; it is too uncertain. We want it most in time of drought, and then it is dried up.
478. Have you ever seen wool lying on the banks of the river? Yes; I have seen 200 bales lying there for three months, and then it had to be carted away to Nevertire, and sent to Coonamble. If a line to Walgett were constructed we should use it considerably for wool, and it would enable us to fatten stock. As it is, we have to half fatten them here and then to send them to Liverpool Plains. With regard to our station at Liverpool Plains, we use Newcastle as our shipping port; but we are not able to do that from Warren Downs. If a railway were constructed we should save the distance from Newcastle to Sydney. I desire to emphasise the fact that, in my opinion, Newcastle will eventually be the port of shipment for this portion of the Colony.
479. Would a railway to Pilliga be of any service to you? Not the slightest. A railway would be of considerable advantage to us in moving starving stock. In times of drought we would send the stock to the mountains beyond Manilla. Even without a railway into Walgett we have frequently used a portion of the north-west line in order to reach that place.

R. J. P.
Higgins.
9 May, 1898.

George Wilkins, saw-mill proprietor, Walgett, sworn, and examined:—

480. *Mr. Fegan.*] Where do you get your timber? Between Pilliga and Come-by-Chance.
481. What class and quantity of timber do you get? Nearly all pine; it is chiefly used for building purposes.
482. How do you dispose of your sawn timber? Around here, and out towards the Queensland border.
483. Do you ever send it to Narrabri? No; the distance is too great.
484. How would the construction of a line help your business? I would get as many logs as I required at a cheaper rate than I do at the present time.
485. What do you pay now for the carriage of 100 feet superficial? It costs me 30s. a ton from Pilliga to the mill.
486. How many men do you employ? An average of four or five at the mill; but from twelve to fifteen altogether.
487. Do you employ your own teams for carting timber? No.
488. If a railway were constructed would it be a means of extending your trade by reducing the cost of carriage on timber? It would, and as a result I should employ a greater number of hands. Last year I sold 307,687 superficial feet of timber, or 615 tons. If I could have supplied all my orders, I could have sold double that amount; and even then I should not have supplied the district with all the timber it required.
489. Are there any other saw-mills besides your own in the district? Not nearer than Come-by-Chance.
490. Would cheaper carriage be the means of giving the people cheaper timber? It would. There is no timber about here; consequently, I have to go to Pilliga for it. There is no timber out towards the Queensland border, and I should have a good trade with the people in that direction.
491. What is the nearest point from which you trade? At present, a distance of 50 miles; that is the nearest point from which we get pine, and we get ironbark 60 miles away.
492. Have you any land? Yes, 100 acres.
493. To what use do you put it? I have grown a little hay—about 7 acres.
494. What was the result? I got from 2½ to 3 tons an acre from it.
495. Are you ever short of timber at the mill? Nearly always. I cannot get sufficient teams to bring it down. The roads, at times, become impassable, and in the wool season the teams go away. I consider that the consumption of timber last year would have been fully 2,000 tons in building alone, if there had been a railway; then, of course, there are bridges and other works with which I have nothing to do.
496. Do you think the condition of the roads alone keeps Walgett in a backward state? Yes.
497. Have you ever sent timber down the river? No.
498. From where do the people of Brewarrina get their timber? From Bourke, I think.

G. Wilkins.
9 May, 1898.

Charles William Macauley, butcher, Walgett, sworn, and examined:—

499. *Mr. Hassall.*] From where do you get your fat stock? From pretty nearly the whole of the district.
500. Would a railway from Narrabri to Pilliga be of any service to you in your business? No; not unless it came to Walgett.
501. How would it benefit you then? It would bring more population to the district, and if you wanted to get stock in or send them away you could do it much easier.
502. Do you send any fat stock to Sydney? No; but I hope to do so.
503. Have you heard the evidence given by previous witnesses as to the difficulty of getting small quantities of stock away? Yes.
504. Can you corroborate that evidence? Yes. There are many selectors who have (say) 400 to 700 sheep, but that number is not sufficiently large to be sent to the nearest trucking station. If, however, we had a railway to Walgett they could be sent away without difficulty.
505. As a butcher, you know that it is well to get your stock to market in good condition? That is so. Even if a road is in first-class condition stock fall away.
506. Is this a part of the country which suffers from periodical droughts and floods? It is.
507. Do you think the construction of a railway would mean the saving of stock in bad times? Undoubtedly. In droughty times stock are kept in the hope of rain coming, and then when they are moved they are in such a weak condition that they die.
508. Are there many fat stock coming from or going to Narrabri? There are a good many coming through Walgett to Dubbo, Mudgee, and Narrabri. Queensland fat cattle, as well as large lots of fat sheep, come through Walgett.

C. W.
Macauley.
9 May, 1898.

- C. W. Macauley. 509. In the event of a railway line tapping this district, do you think that stock would be trucked here? Yes.
- 9 May, 1898. 510. From your knowledge of the country and the stock traffic, from a north-westerly direction, you look upon this, I suppose, as the natural point to which they would make in order to get to the railway? That is so.
511. By what route would they come in? They could come through Goodooga, and also by the Lightning Ridge track.
512. Would a railway to Collarendabri intercept the stock? No, but it would intercept the stock nearer to the border.
513. Do you know the country about Walgett? I know all the country lying north and west from Walgett. It is good fattening country, principally occupied by homestead lessees and station holders.
514. Has settlement increased very much during your knowledge of it? It has. A great number of homestead leases have been taken up during the last ten years, and the holders of them appear to be doing fairly well. They devote their attention principally to wool-growing and fattening.

TUESDAY, 10 MAY, 1898.

[The Sectional Committee met at the Court-house, Walgett, at 10 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Narrabri to Pilliga.

Thomas Burke, selector, Walgett, sworn, and examined:—

- T. Burke. 515. *Chairman.*] Have you any statement to make? Yes. For the last 6 years I have resided in the Walgett district. I hold 2,200 acres of land, and am engaged in wool-growing principally. I think, in common with many others following the same occupation, that if we had a railway I would be able to combine agriculture with pastoral pursuits, and make both profitable to myself and the district. I am of opinion also that the majority of small holders of land here would turn their attention to fattening stock if we had the railway, because the land is of exceptionally good fattening properties, and we would be able to carry more stock on the land, because it would have a spell at intervals. At the present time I am running 1,500 sheep on my land, and I am of opinion that any fair land in the Walgett district of the same area would do the same, except in very severe seasons of drought. When I speak of agriculture, I may tell you that I have seen some nice growing crops of wheat in this district, as well as some very good grain. Taking into consideration the great amount of settlement there will be in the near future, there should be no doubt as regards the railway being a paying concern from the start.
- 10 May, 1898.

William Godfrey Ferris, homestead lessee, Geronga, near Walgett, sworn, and examined:—

- W. G. Ferris. 516. *Chairman.*] Where is Geronga? Thirty miles north from Walgett.
- 10 May, 1898. 517. If a railway were constructed to Walgett would you use it? Yes.
518. How far are you from Brewarrina? One hundred and thirty miles.
519. Are you able to make any statement with regard to the possibility of the navigation of the river Barwon? I have been in the district for twenty years, and I remember the first steamer that went up to Collarendabri—the “Brewarrina”—commanded by Captain Greville. He petitioned the Government to build a wharf, and to make Collarendabri the head of navigation. The boat started to come back, but she never got to Brewarrina; she got stuck, and was lying on the rocks when they took the engines out of her and started a saw-mill in the bush. She never got over the rocks, and was there for three or four years.
520. When was that? After the flood went down in 1879. In 1883, 1884, and 1885, the river was absolutely dry for a long time. You could walk over half a mile up the river without dirtying your boots. Judging from the past, there would be long periods during which the Barwon, at Walgett, would be absolutely dry.
521. Do you use the river? I have used it for wool when carriage has been very high, and when I could. When the river is high and the steamers are coming up, it means bad routes to Narrabri, and that means delay in getting your wool to market; consequently, we use the river sometimes. In my opinion the river is a sort of “off-chance.”
522. If a railway were constructed to Walgett, how far towards Goodooga would the produce of the district come to Walgett? I think a good deal would come from the other side of Goodooga.
523. Supposing there were a railway at Walgett, also at Coonamble, but not at Brewarrina,—take the present railway system which furnishes you with a railway at Warren,—imagine one then at Coonamble and one at Walgett—how far towards Goodooga would stuff come to Walgett? I think from the other side of Goodooga.
524. As far as Brenda? Unquestionably, and a good deal up to the east of that as well.
525. Take the case with a railway at Brewarrina? I think with a railway at Brewarrina the Goodooga traffic would come here.
526. How far is Goodooga from Brewarrina? Eighty miles.
527. And how far from Walgett? Ninety miles.
528. For practical purposes, then, they are equi-distant? Yes.
529. Then the question resolves itself into a matter of freight from Walgett to Newcastle or Sydney, or from Brewarrina to Sydney, taking into consideration the difficulties which would be experienced from Goodooga to Walgett as against Goodooga to Brewarrina? Yes.
530. Which is the best route to travel? I think the produce would come Walgett way, simply because it would touch the Newcastle port.
531. Is there any difference in the rates? I think they are very much alike.

532. Where will the Angledool produce go? To Walgett—that is, if there is a railway. It will probably pass to Callarendabri, if there is not a railway. W. G. Ferris.
533. What amount of stock have you? 12,000 sheep. 10 May, 1898.
534. What is your carrying capacity? Three acres to a sheep.
535. Have you anything further to say? I am quite sure a railway to Walgett would induce settlement of a good class. There is at present a tendency to go in for agriculture. Again, if we had a railway to carry our stock in time of drought, they would have a better show of living than if they had to walk to fresh pasture. Again, if we had a railway, a man could send a single store sheep to Sydney in better condition than we can now land prime fat sheep.
536. What do you pay for road-carriage? Three shillings per cwt. to Narrabri, but I have paid as much as 6s., 5s. 10d., and 5s. 8d. during the last two years.

Thomas Clarke, secretary, Railway League, Walgett, sworn, and examined:—

537. *Mr. Fegan.*] Have you any statement to make? Yes. The estimate I am about to give you is, in my opinion, not the probable but the actual traffic which must of necessity accrue to a railway constructed between Narrabri and Walgett. The length of such a line would be 113 miles, and would cost, at £2,297 per mile, £259,597. The annual cost of such a line would be:— T. Clarke.
10 May, 1898.

Interest on capital outlay, at 3 per cent. per annum	...	£7,786
Cost of maintenance, &c.	... ..	10,547
Total annual cost	... ..	£18,333

My estimate of traffic is:—

2,566 tons goods from Sydney, at £1 16s. per ton	...	£4,618
600,000 feet timber from Pilliga (2,400 tons), at 5s. 3d. per ton	...	630
4,685 tons wool, at £1 3s. 9d. per ton	... ..	5,564
3,108 trucks sheep, at £2 5s. per truck	... ..	6,993
100 trucks cattle, &c., at £2 5s. per truck	... ..	225
Mails, 113 miles, at £12 per mile	... ..	1,356
Coaching, 1,500 at 17s. 8d.	... ..	1,325
Come-by-Chance	... ..	593
Goangra	... ..	654
	... ..	£21,958
Profit per annum	... ..	£3,625
	... ..	£21,958 £21,958

As to the reliability of these figures, I might mention that they took me over two months to collect. Mr. Harper obtained his estimate whilst remaining in Pilliga two hours. I will now explain how I arrive at my figures. The cost of construction is based upon the Railway Commissioners' report on the line from Narrabri to Pilliga, and as there would be less money per mile spent upon bridges between Pilliga and Walgett the estimate must be rather over than under the actual cost. The interest and cost of maintenance is also based upon the Commissioners' estimate. The tonnage from Sydney I have taken from various sources, among others the Commissioners' report. With regard to the timber, Mr. Wilkins, who owns the sawmill here, will swear that he receives this quantity annually, and if a line were constructed the tonnage would double. The estimate of wool and fat sheep and large stock, I have made up principally from replies to circulars, and where those were wanting, from returns made to the Pastures and Stock Board. Returns made to this Board would never be exaggerated. My estimate shows the wool got from 1,522,406 sheep. The stock returns for 1896 showed 1,978,088, and 4,685 tons of wool from such a number of sheep is well within the mark. I say there are 279,750 sheep in 3,108 trucks forwarded. The stock returns showed that 255,000 fat stock travelled through this district, and there is not the shadow of a doubt that they would be all trucked in the event of a station being in Walgett. In fact I have no hesitation in saying that Walgett would be one of the very largest trucking stations in the Colony. The mails I have also estimated at the lowest price, £12 per mile. We are now receiving about, on the average, 19 cwt. of mail matter per week and, if this continues, the Railway authorities would charge £20 per mile, which would increase my figures by £904. My estimate of the passenger traffic is based upon returns made by the police for the year 1896, which are as follows:—

Walgett Police District	...	1,492
Angledool	... ..	300
Goodooga	... ..	450
Grawin	... ..	300
Carinda	... ..	320
Total	... ..	2,862

Leaving out Goodooga and Angledool we would be justified in estimating the population at 2,112, and one single fare for each unit. I have only taken three quarters. The amounts set against Come-by-Chance and Goangra are arrived at by the same process. You will please note that I have allowed nothing for any probable traffic from Queensland, which would increase my estimate to a considerable extent, and I have not included Pilliga or Wee Waa. The last returns made by the police show a population of 1,935 in the immediate vicinity of Walgett, 800 of that number being in Walgett proper. This is made by a house-to-house canvass. The area of alienated land in this Police District is 458,343 acres; and Crown lands unalienated 4,315,981 acres; total 4,774,324 acres held by 340 persons (from a return made to Superintendent of Police, Bourke, 10/2/97).

538. How do you define your district? The district would be from Walgett to Dunglear station, thence west to the Grawin. From the Grawin we run down the Narran to a point between Boorooma and Walgett; thence across the river up the Castlereagh on the Marthaguy Creek to Carinda; thence across to Combogolong, through to Goangra, Kercargo, and Cryon; and thence up to Dunglear.

T. Clarke. 10 May, 1898. Dungalear. In the Walgett land district, there are 171,607 acres available for application under the conditional purchase clauses; 8,167 acres for homestead blocks; and 2,638 acres for settlement lease farms; total, 182,412 acres; and in Walgett North, 33,740 acres for homestead lease. With regard to lands coming on for settlement, most of the leases in the Walgett district were extended until 1899 and 1900; but during the next six months, 59,000 acres on Bugilbone, 22,000 on Bogewong, and 31,000 on Euroka; in all, 112,000 acres will probably be opened for various classes of settlement. I will now deal with this great maritime highway, the river Barwon. Mr. Hickson, in his report, states that the river has been navigable seven times in fourteen years. If that is a fact, can any person look upon such an irregular mode of transit as an actual competitor with a railway. A line built *via* Narrabri would be to Newcastle (which I look upon as the natural outlet for the produce of this district) 362 miles, and to Sydney 462 miles. Produce sent *via* the river, thence per rail from Bourke, would have over 500 miles of river carriage, and then 503 miles of trainage, as against a total carriage of 462 miles direct from Walgett to Sydney, or 362 to Newcastle. The river Darling was not navigable higher than Wilcannia for four years continuously in the early eighties, and this may occur at any time in the future, in the event of the river being seriously contemplated as a competitor. I would draw your attention to the fact that there is no get-away for stock, which would be a source of revenue to a railway. With carriage at £2 10s. per ton from this district to Narrabri, no grazier, even with his shed on the bank of the river, would send his wool by water, as this mode of carriage is not only uncertain but unsafe. Mr. Harper, in his evidence, stated that it was his opinion that if a line were constructed to Pilliga and Walgett two-thirds of the traffic would pass Newcastle and go on to Sydney. Walgett, if given railway communication, should be approached *via* Coonamble. That is to say, that the people of the district of Walgett should send two-thirds of their produce 24 miles further than there was any necessity for it to go, and one-third 224 miles further. In his evidence before the Public Works Committee, when that body was inquiring into the Narrabri-Moree line, in answer to questions 619, 620, 621, and 622, page 25, Mr. Harper stated:—

Some traffic comes from Pilliga, not all of it? I understand some goes by river to Walgett, and thence to Bourke. Is the trade from Pilliga gradually being diverted down the river? I think it has been affected during the last year or two.

Is that state of things likely to continue? Yes; if my information is correct there will be a big diversion of trade in the future.

I think no gentleman who would make such a rash statement as that should be allowed to report as to the probable traffic of any line in the back blocks. I now give an unqualified denial to that statement. There never was and never will be one pound of goods forwarded down the river Namoi from Pilliga to Bourke. At one time, in fact on 5/2/98, I noticed the river had been navigable for over a month, and a steamer never came up, although the town was then without forage, flour, potatoes, kerosene, &c. I anticipate a profit on this line on account of the profit earned by the Werris Creek to Narrabri, and the Narrabri to Moree lines. The former in 1891 showed a profit of £907; in 1892, of £9,432; in 1893, of £14,000; and in 1896, of £10,488; and in speaking of pioneer lines the Commissioners state:—

The two latter lines indicate a good prospect, more particularly the Narrabri-Moree line.

To prove the prosperity of our district I would point to the financial healthiness of our local institutions. The amount received at the local Lands office for the year 1897 was £18,499 6s. 4d., and, for the quarter ending 31st March last, £5,468 16s. 10d. The P. & A. Association takes rank with such towns as Dubbo, Forbes, Glen Innes, Hay, Junee, Moree, Orange, Temora, and Warren. The subsidy on money received by institutions granted to Sydney School of Arts was in 1895, £980, Walgett, £764, and the next highest was Newcastle, which only received £271. The Hospital ranks with the like institutions in Armidale, Corowa, Scone, Wallsend, Warialda, Windsor, and Young. The amateur and professional race clubs are both in a flourishing condition. In considering the claims of other towns to railway communication I would respectfully point out to the Committee that there are public buildings in Walgett worth at least £10,000, and about £3,000 has just been laid out in putting them in thorough repair. If a railway were constructed to any other town in the district it would not only destroy the private vested interests but would also render these buildings useless. With regard to the Euroka Station, which has sent about 8,000 stock away for some years, I may state that it is anticipated that this year 12,000 stock will be sent away. Wheat and lucerne are being put under crop on the station. The sum of £2,000 has been spent on a bore on the station, and £4,000 worth of rams have been purchased. I have received the following letter from Mr. J. S. Gordon, who is unable to be present:—

It is so well recognised by all pastoralists that to carry on grazing in this district with any degree of safety it is absolutely necessary to be connected by rail with the nearest agricultural districts in order to get cheaper food for man and beast, that it would be unnecessary to repeat it. Each district depending entirely on its own resources is at a great disadvantage. New England is agricultural and not adapted for grazing on a large scale on natural grasses. This district on the other hand is entirely pastoral. The uncertain climate renders agricultural pursuits (unless combined with irrigation) out of the question, and even pastoral pursuits very risky by reason of the periodical droughts. The two districts combined, if connected by a means of cheap transit, would be worked with distinct advantage to each. Evidence of this may be found in the case of Riverina during the recent drought, when thousands of the most valuable stock (the like of which would take a lifetime to regain) were saved from starvation by the feed introduced from agricultural districts by railway. Had there been no railway the stock would have entirely perished. Settlers in this district are desirous of improving their stock to a much higher degree, but as a severe drought means annihilation, there is no encouragement to do so. And, in fact, a man would be foolish to attempt improvement at much cost until there was some means of either bringing food from the other districts or taking the stock to other pastures. It is only very old residents in this district that have any conception of the severity of the droughts, and the utter impossibility of the present numbers of stock to exist should ever these occur, and no doubt they will be repeated sooner or later, and when they are it will be a revelation to all and a punishment to many.

539. What is the area of Mr. Gordon's holding? About 180,000 acres, which carry 60,000 sheep.

540. How far is his place from Walgett? About 40 miles.

541. Would his wool come to Walgett if there were a railway here? Yes. I may state that Mr. Gordon, at a recent meeting in Walgett, stated that under no circumstances would he again use the river; it did not matter if there was not a railway, and the river was navigable, he would not use it. In my opinion the whole of the Queensland traffic in stock will come by Walgett, that is when crossing near Brenda or Heeble. It will come here in preference to any other town. I have the declarations of seven drovers, who state that they prefer the stock routes leading into Walgett to the stock routes leading into any other town. [*Vide Appendix.*]

542. I think you will admit that your estimate of traffic is very much higher than that of the Railway Department? Yes. 543.

543. Do you take credit in your estimate for the Collarendabri traffic? No, only for the traffic which I think would come to this town. T. Clarke.
544. Can you define the area from which you expect to obtain traffic? I will start from a point up the Namoi, Come-by-Chance, or Bucklebone. I cross Bucklebone to Yarraldool. 10 May, 1898.
545. Then your estimate does not include Pilliga? No, nor Wee Waa, but from Come-by-Chance up to Walgett and further. I cross the river at Bucklebone to Yarraldool and Cryon; thence north, taking in Mercadool station.
546. Do you not see that you are trespassing on the Collarendabri traffic? I may state that Mercadool is rather closer to Walgett than to Collarendabri, and I have it on the highest authority that if a railway were constructed the manager of that station would send his wool to Goangra. Crossing the river at Mercadool I go north to Dungalear and Dunumbral.
547. Do you take in Weetalibah? Yes.
548. And Goodooga? I do not go so far as Goodooga. We cross the river to Quirindi, go through Combogolong, taking in a portion of Bullorora (that is the conditional purchase of Bullorora), and thence to Bucklebone. Although I have not included Bullorora I may state that there are £300 worth of traffic there, which would come to any line built between Pilliga and Walgett. I am assured by persons on that station that if there were a railway to Coonamble, and also to Walgett, they would join the line to Walgett, either at Come-by-Chance, or Goangra, in preference to going to Coonamble.
549. How far is Mercadool from Collarendabri? About 28 miles.
550. That point, then, will equally divide the traffic between Collarendabri and Walgett? Yes. We are 22 miles from Mercadool station, and it is 28 miles from Mercadool to Collarendabri. I have just stated that a gentleman at Mercadool told me that he would use Goangra station if a line were built to Walgett. Mercadool is 17 miles from Goangra.
551. Is there a bridge there? Not at present.
552. Then you would expect one there? I do not say so. I think the Railway Commissioners would ask for it as soon as the line was constructed. It would be to their advantage to have it.
553. You think, then, that you can fairly claim for your estimate of traffic the districts you have defined? Yes.
554. Is there anything else you wish to state? As showing the amount of stock which would come this way from Goodooga and districts in the vicinity of Goodooga and Angledool, I may state that very recently 3,000 large stock passed through Walgett to Newcastle or Sydney. They were to be trucked at Narrabri. Personally, I believe the whole of the traffic from Queensland within the vicinity of Goodooga and Angledool would come here.
555. Have you any idea of the tonnage of goods coming into Walgett for distribution? About 1,000 tons per annum for the town alone.
556. I suppose a large number of the stations are supplied direct from Sydney and other places? The station I was speaking of gets about 50 tons per annum, and, of course, there are several stations larger than that.
557. Have you any idea why your estimate and that of the Railway Department differ so materially? I could not tell you why.
558. Do you think the estimate of the Railway Department is an under-estimate? I think it is. I should like to point out that no one has been here to gather evidence, so that the only evidence they could get is purely approximate. When evidence is taken by the Railway Department it is simply oral. No returns in regard to stock are given. They simply examine, and perhaps only a few would come in to give evidence.
559. Have you any doubt as to the accuracy of your estimate? If you send a man here who is not under Departmental influence, he will find that my figures are almost correct. Such a man would be a disinterested party, criticising the estimates of a disinterested party.
560. Are you a disinterested party? I am. My only desire is to place the case before you in as true a light as possible. I may say that I, myself, have not an acre of land in the district.
561. You have stated that you obtained several returns from the Stock and Pastures Board? I got the returns from the Statistical Register, and also from the Stock Inspector who was here then. Some of them I got from the Stock and Pastures Board, and returns made to that Board are never exaggerated.
562. I suppose you have not been able to get anything like accurate information as to the total tonnage of goods coming into Walgett and district? I got some of the returns from the Railway Commissioners.
563. Were you satisfied to accept their figures? No; simply because the tonnage we receive here is not always received *via* Narrabri. For instance, Mr. Higgins receives some of his tonnage from Nevertire. If the river happens to be up he would get goods from the river, and sometimes from other directions. The tonnage supplied me is by the settlers themselves.
564. Do I understand you to say, then, that you have no idea of the total tonnage of this district? Only approximately.
565. What is it approximately? From Narrabri it is 2,566 tons. I should like to point out that I have put everything down at through rates; and you will allow that if a line is constructed to Walgett, or even to Pilliga only, the Department will charge for a certain period local rates, which will make my estimate greater than it is.
566. Do you think the people of Walgett would be prepared to pay a local rate? I am not prepared to state that, but I am sure the Railway Commissioners would charge it.
567. If it were shown that the cost of construction would exceed the revenue by a considerable amount, do you think the people of Walgett would be prepared to pay a local rate? I think they would; in fact, I am sure of it.

Wallace Ryrie, Inspector of Stock, Walgett, sworn, and examined:—

568. *Mr. Hassall.*] Have you any information to furnish to the Committee with regard to stock in this district? Yes. W. Ryrie.
569. What are the boundaries of your district? From Mungindi, in the north, the crossing on the Narran, towards Goodooga, this side of Come-by-Chance, and Shingle Hut. 10 May, 1898.
570. How far west do you go? To the Macquarie.
571. What area does your district embrace? About 4,820,305 acres. The stock return last year numbered 7,812 horses, 12,230 cattle, and 1,901,243 sheep. That is 76,845 less sheep than were returned last year. 572.

- W. Ryrie. 572. What is the country used for principally? Principally for grazing sheep.
 573. Have you any idea of the number of stock travelling through the district? The number of stock I have passed through Walgett within the last eight months is as follows:—horses, 1,004; cattle, 15,601; sheep, 744,647.
 574. Where did they go to principally? Principally to Muswellbrook, Narrabri, Dubbo, and Mudgee. Of course there are numbers of sheep that have gone through that I have not seen.
 575. What about the fat sheep? The fat sheep that have passed out of the district number 129,235.
 576. Where have they gone to, principally? To Narrabri, to be trucked to Homebush. A few have gone to Dubbo.
 577. What proportion of sheep do you think would go across towards Moree and truck there? If there had been a railway here I believe nearly the whole of the 129,235 fat sheep would have been trucked here. I believe that number of sheep would occupy about 1,430 trucks.
 578. Do you think the construction of a railway would result in many store stock being sent away by rail in bad times? I think so.
 579. What is the general practice here with regard to store stock in bad times? I have only been here since August, but I know that in other parts it is customary to send them to where there is grass.
 580. I suppose the common practice is to wait until the last moment in the hope that rain will fall? Certainly. Frequently they are unable to get them away owing to waiting too long. The number of fat cattle which passed out of this district last year was 1,734. Nearly the whole of them were trucked at Narrabri. They would require about 200 trucks. Of course, a small dealer might have 100 or 200 fats, and it would not pay him to travel them by road. He might, however, join with others and get a number of trucks in order to send them away.
 581. Have you travelled over the district pretty well since you have been here? Yes; but not over the whole of it. The following are the stock routes in my district which connect with Walgett:—Coonamble, Narrabri, the stock route on the opposite side of the river by Bucklebone, Mungindi, *via* Collarendabri, Angledool, and Goodooga.
 582. Where would the stock which you say would be trucked at Narrabri come from? From Boorama, about 50 miles from here; South Grawin, out towards Goodooga; and Gingie, about 5 miles from here. There are also a number of small lots from different places.
 583. Do you get any from the Castlereagh? Yes; low down the Castlereagh, but I could not tell you the particulars from memory.
 584. From how far towards Mungindi do the fat stock come? Some came in the other day from Mogil Mogil, 20 miles on the other side of Collarendabri.
 585. Were they going to Narrabri to be trucked? Yes.
 586. At any rate, you could only look to about halfway between Walgett and Collarendabri for stock to come in this direction to be trucked, and the country to the north and down the river? Yes, about half-way.
 587. Are you aware that there are a number of settlers on the north side of the river? Yes.
 588. And that the country is becoming thickly settled by small holders whom a railway would benefit? Yes. Of course, the reduction in stock has been a great deal less this year than it was last year, when the season was so bad.
 589. Are the stock in this district pretty sound? In my opinion they are.
 590. Is there no disease amongst them? There is a little, but generally speaking they are sound. I look upon this as a good sound stock district.

Charles James Druitt, bank manager, Walgett, sworn, and examined:—

- C. J. Druitt. 591. *Chairman.*] How long have you been in Walgett? Eight years, and twenty-four years on the Namoi.
 10 May, 1898. 592. Are you prepared to make a statement with regard to the financial state of the district? Yes; I am prepared to say that the financial state of the district is absolutely sound. I may add that if a railway should come in any other direction than on the south side of the river the vested interests of Walgett would be ruined—of course, it would mean taking the township and business to another part. Supposing a branch were made to Eurie Eurie, then the business of Walgett would go to Eurie Eurie, and the town would be practically ruined.
 593. How far away is Eurie Eurie? Ten miles.
 594. What is your opinion with regard to the country on the north and south bank of the Namoi? The country on the north side is excellent country, and that on the south side, with the exception of a strip of land between Milkimia and Pilliga, is very good indeed. That land would, I suppose, make good agricultural land if it were cleared.
 595. Is the business of the town growing? Yes, as far as my experience goes. I should estimate the turnover of business in Walgett to be about £20,000 a week.

Wallace Webster, Inspector of Conditional Purchases, Walgett, sworn, and examined:—

- W. Webster. 596. *Mr. Fegan.*] Have you any statement to make? I desire to say something with regard to the river traffic. I have known the river since 1882. In that year I went to a station below Bourke, and was handed bills of lading for shearing supplies, which were received four years afterwards. I may state that on the boat carrying the supplies there was timber, which was intended for the building of an hotel in Bourke for Mr. Huggins. The timber was so long coming up that he bought the Royal Hotel, and spent most of his money before the timber arrived. In 1884 I was in charge of stock there, as the overseer of the run, and in that year we had men in the river to keep the sheep from crossing. We were compelled to erect fences in the bed of the river. We loaded the 1883 clip of wool, and it remained on the barges below the Teraldbegar, at the mouth of the Warrigal, for twelve months—in fact, the next year's clip met that wool in the English market. From 1882 to 1886 there was really no river which you could depend upon. In 1891 I was at Walgett, and saw a steamer there at the bridge, which is as far as a boat can come up. During the last two years there has been a very unreliable river. Really, the river is only reliable for heavy traffic to Wilcannia, and even that is not certain. With regard to the Walgett district, it is very good carrying country, but in a long drought it would not be reliable, on account of there being no scrub. 597.

597. What noxious weeds have you? The Darling pea is the worst. I believe the construction of a line to Walgett would tend very much to increase the carrying capability of the country, and it would also tend to settlement. The land, compared with the Bourke district, is very much ahead of that district, by almost two to one. W. Webster.
10 May, 1898.

598. Their average is 3 acres to a sheep? That is only by returns of sheep coming to and passing through the district.

599. Do you think the Walgett district is, acre for acre, twice as good as the Bourke district? It will be when it is improved and ring-barked, and it is being very much improved now.

600. Do you think the leasing of the travelling stock routes prevents any stock coming to Walgett? I do not think so.

601. You say that the river cannot be relied upon for carriage? It cannot, so far as my experience of sixteen years upon it goes. I may state that I am an old farmer from Victoria, and have seen good crops grown at Wilcannia, which has 11 inches of rainfall, compared with a rainfall of 20 inches at Walgett. I think farming would pay here, to a certain extent, on the east side of the river.

602. North of the Namoi? Yes; I think they would get three crops out of five.

George Lionel Hember, manager, Flemington Station, and secretary, Selectors' Association, Walgett, sworn, and examined:—

603. *Mr. Hassall.*] Are you able to give the Committee evidence with regard to the settlement which has taken place in this district? Yes. G. L. Hember.
10 May, 1898.

604. For how long? The last eight years. The country taken up amounts to about 200,000 acres—that is land taken up by conditional purchase, conditional lease, and settlement lease. Ten miles from Come-by-Chance, on the Castlereagh, including Yarrandah, there are 140,000 or 150,000 acres. The country on Eurie Eurie and Goangra would make up more than 200,000 acres, which have been taken up by selection during that time.

605. Is there a pretty good demand for land? Yes; the whole of Yarrandah was thrown open a short time ago, and every acre was rushed. Some land is to be thrown open at Euroka shortly, and many people are waiting for it to be made available.

606. What is the principal occupation of the settlers? Wool-growing at present.

607. Are there any evidences of agricultural settlement? Yes; last year I, myself, put in 25 acres. This year I am putting in 50 acres, and am preparing another 100 acres.

608. Do you know anything about the crops which have been grown? They have been very satisfactory with us.

609. What do you grow? Wheat and oats. Wheat is the more successful. Of course, it is only grown for hay. Last year our average was 2 tons to the acre of wheat and oats combined.

610. Will the land which becomes available at Euroka be within the influence of the bore? No. Of course most of the land to be thrown open has frontages to the Barwon.

611. Do you think the grazing qualities of the land are pretty good? Yes, exceptionally good. I think you could put a sheep to 1½ acres on a greater part of it.

612. Have you heard it stated that if a railway were constructed the land might be stocked up to its full carrying capacity? Undoubtedly it could be. With regard to the trucking of stock, I may state that it frequently happens that a man could send 200 or 300 sheep away, but it would not pay him to send that quantity by road. Consequently, they have to be kept and sold as stores. With regard to the river, I may mention that in 1884 I sent 40 tons of wool to it, and paid £1 per ton to cart it to Walgett. We got it to the banks of the river and covered it with tarpaulins. All at once the water ran out of the river, and the steamer did not come up; and it cost us £6 10s. a ton to cart the wool to Narrabri. The river is not reliable. We have only been able to use it on one occasion in eight years. Sometimes when there is water in the river it goes down before the wool can be shipped. I have no doubt that with railway communication a great deal more agriculture would be carried on. Several people are going in for agriculture this year—that is, for hay. Of course it is of no use growing anything else at present. The land, however, will grow almost anything. In a fair year we can obtain very good crops.

Finley Macrae, stock and station agent, Walgett, sworn, and examined:—

613. *Chairman.*] Do you wish to express an opinion with regard to the relative values of the country about Walgett and Bourke? I know both districts very well, and there is no comparison between the two. The Walgett district is by far the best. There is a great extent of good land right to the Queensland border. In my opinion 2½ acres to a sheep is a fair estimate of the district generally for about 30 miles round. If people could send their stock away when they wanted the land might carry more. F. Macrae.
10 May, 1898.

614. What advantage would it be to stockowners to establish a trucking station at Walgett? I should think there would be quite as much if not more stock trucked from Walgett than from Bourke. The district is better, and we have some really good stock routes from Queensland into Walgett. They join at Goodooga and separate there again. There are two routes from there to Walgett, and the stock can travel on whichever is best.

615. Would they prefer to come to Walgett to going to Brewarrina? Certainly.

616. Does wool come to Walgett from Angledool? Yes, from Angledool, Bangat, Manilla, and a great many homestead leases. If there were a railway station here I think it would come all the way from Goodooga.

William Nicholas Willis, Esq., M.P., sworn, and examined:—

617. *Mr. Fegan.*] Have you any statement to make? I have no written statement; I have simply attended to ask you, as representatives of the Full Committee, to do that justice to us which has for a long time been delayed. Walgett is entitled to railway communication. Its importance and the revenue from Government lands in and about the town and district entitle it to better communication with the inner districts than it has at present. There are a number of leases to be thrown open shortly when they fall due. These lands belong to the Crown, and I have no hesitation in saying that long before they are thrown W. N. Willis,
Esq., M.P.
10 May, 1898.

W. N. Willis,
Esq., M.P.
10 May, 1898.

thrown open dozens of people will be waiting for them, and they will be quickly snapped up by the right sort of settlers—the people who make this or any part of the country by settling on small areas of land. A great deal of Government money has been spent in Walgett, and in any railway proposals which the Committee may suggest, I hope they will see the justice of recommending the running of a line right into the town. The people have spent a lot of money on buildings, and they have paid the Government a lot of money for their various allotments of land. The Government has spent about £20,000 in the town. It has its ordinary buildings here, and any stopping short of the line within a few miles of the town would certainly do a serious injury to it, and place me, as representing the district, in the position of having to oppose such a step. The people have been led to believe for the last twenty years that they will get railway communication, and that the railway will come right into the town. They have bought their allotments, and have built and settled here, and have put up with the hardships which are so well known to the people of the district, and if any stoppage of the railway within a few miles of the town takes place, it will be a repudiation, in the worst form, of a promise which, in my opinion, the Government has held out to us. I do not think you can travel in any portion of the Colony and see a richer and a better district than the district of Walgett. The lands are of the very best fattening kind. The district is highly favoured by nature with creeks, rivers, and branches. The land is well watered, and is more favoured by nature in that respect than many other portions of the Colony. If we had a railway here, these small areas, instead of being used for grazing purposes, for which they do not very well pay now, would be used as fattening areas. The stock would be fattened on these small areas, and would be sent to market to the benefit of the railway and State, and the man who is struggling on the land. As things are now, however, if a selector has 700 or 1,000 fat sheep, the mob is too small to go upon the road, and when they get to a railway terminus they have deteriorated as much as 3s. per head on the journey. That means an absolute loss to the whole of the people. It is a loss indirectly to the State, and directly to the man owning the stock. I have known stock to leave here “mud fat,” so to speak, and arrive at Narrabri absolutely poor, and be sold as stores. That should not be. If we had a railway it could be obviated. As I have already stated the lands are of the best, and we have been favoured by nature with artesian well supplies. We have very good supplies at the Euroka bore. We have one of the biggest supplies in the Colony at what is known as Bell's bore; we also have another supply at Carinda. These supplies differ materially from the supplies of water which we get in Queensland, or even in some parts of the Colony of New South Wales. The moment the water out of these bores goes on the land it simply fertilises it, and the grass or herbage grows prolifically under its influence. In some places—the Native Dog bore, the Barrangun bore, and other bores in New South Wales and Queensland—the water is not so good for irrigation purposes; but here it is absolutely good. I was very much amazed, whilst at the Carinda bore to see the couch grass growing in the drain. It only proves that the water we strike by means of these artesian wells is going to revolutionise the condition of the whole of the district. I have no doubt that a railway to Walgett would pay; but even if it would not pay, I should have every confidence in the Committee recommending it as a national line, and in fulfilment of a promise so long made. The Northern district and Newcastle are entitled to the business of the Walgett district. We do a great deal of business with the north, and a line would simply add to the tonnage on the Northern line and to our commercial relations with Newcastle and surrounding districts. I have very strong objections to the line going from Mudgee. I think those objections were voiced by the late Mr. Eddy and his co-Commissioners, to the effect that that line would not stand the traffic. Then we have the proposed line from Dubbo. If we wait until the surveys take place, and the matter is decided, we shall not only be old men, but we shall be out with our friends on the plain. It is too far to look ahead.

618. If a railway were constructed to Walgett, from how far would the north-western trade come to the town? I think from Angledool, and this side of Narran. Geographically, that really belongs to us.

619. Would the trade of the western side of the Narran go to Brewarrina? I think that would be the dividing line.

Bertrand Sydney Martin, stock and station agent, Walgett, sworn, and examined:—

B. S. Martin. 620. *Mr. Hassall.*] How long have you been in Walgett? A little over twelve months; but I have been in the district for some years.

10 May, 1898. 621. What is the character of the country between Walgett and Wee Waa? I have travelled over the whole of it on each side of the river. On the south side from Wee Waa you come through the brigalow country across the Brigalow Creek. Then you get into the pine and sandy country, a lot of which should be good for agriculture. When you reach Pilliga you get into what may be termed a sand-bed, where you have 7 or 8 miles of inferior land. It is inferior for agriculture or grazing; but still there are some magnificent ironbark and pine forests upon it. Seven or 8 miles from Pilliga you get upon some good land, which opens right out to Coonamble, across the Castlereagh. There is country of a similar description right on to Walgett: You have very little flooded country to contend with—only the Bulgan Swamp, and I think a railway line would miss most of it. You have another mile or two of slightly flooded country between Walgett and Goangra. After leaving Wee Waa, on the north side, for about 6 miles, the country is often flooded. I have seen it in places as deep as 3 or 4 feet. That part lies between the Namoi River and the Pian Creek. At the back of Drilledool you get upon high land. From there you go to Millie, and into flooded country again—5 or 6 miles of it. I travelled through there in the 1890 flood. At Yarraldool there is a good deal of flooded country to contend with. I should think that on the north side there are from 20 to 30 miles of flooded country. You would not have many creeks to cross. I believe the railway would cross Pian Creek in two places. There is also the Gunnedah Creek and several other little creeks of no consequence.

622. Can you give any information with regard to the settlement on each side of the river? On the south side the settlement is becoming thick. From Pilliga, on the Coonamble road, there are a good many settlers. At the back of Goangra and Boolorora there are *bonâ fide* settlers.

623. Have you a knowledge of the settlement on the north side of the river? There is a lot of settlement on the north side. There is a lot of settlement on Pian Creek, within 20 miles of Wee Waa. There is a fair amount of settlement right through. The line would run through a good deal of settlement on the north side, but not more than on the south side.

624. I suppose there is a considerable demand for land on either side when it is available? Yes; but still, if a railway were constructed the whole of the land on the south side would, in my opinion, be utilized.

utilized. It is an unquestionable fact that most of that scrub land will grow wheat. Many people have small areas under cultivation, and the result shows that it will grow wheat. B. S. Martin.

625. How far is it from Walgett to Collarendabri? Fifty miles.

10 May, 1898.

626. Do you know the country in that direction? Yes.

627. Do you think that part of the country is entitled to railway communication? I think that a railway to Walgett will serve Collarendabri. If it comes on the south side to Walgett it will take in the greater part of traffic from Walgett to Collarendabri. People on the Thalaba, further in towards Millie, might not strike Walgett; but they might hit other points, such as Goangra, Come-by-Chance, and Pilliga. Pilliga would receive the greater part of the Burren, Yarraldool, Buckelbone, and Cryon traffic.

628. If you owned this part of the country would you build two railways? No.

629. Is the country on the north bank of the Namoi, running to the Barwon, good country? Yes; it is country suitable for settlement.

630. Does it produce a large amount of wool annually? Yes, and a considerable number of fat stock.

631. From your knowledge of the district do you think the north side of the river has any right to be considered? I will not say it has no right to be considered, but I think the south side should have the preference.

632. Considering that you are bounded by scrub all the way from Narrabri and below Pilliga, and in view of the possibility of a railway being constructed to Coonamble, do you not think that it might be advisable to take into consideration the necessity of providing some communication for the large settlement which is taking place in the area between the Namoi and the Barwon, and the Meehi? A railway constructed on the south side would serve a good deal of the traffic on the north side, and the Moree line would serve pretty well the traffic further north.

633. Do you think the character of the country on the north side is sufficiently good to entitle it to some consideration? Yes.

634. Are there many transactions in stock in this particular locality? Yes. I may add that Walgett is a great stock centre. The travelling stock generally follow the water, and if there were a railway station here it would be largely availed of for trucking stock. I was an agent in Wee Waa for several years, and I know that several mobs of sheep which came there from the Walgett and the Narran district started as fats and were sold as stores.

Terence Francis Fagan, coach-builder, Walgett, sworn, and examined:—

635. *Chairman.*] How long have you been in Walgett? For six years.

T. F. Fagan.

636. Has the town increased since you came here? Yes.

637. Is the progress of the district satisfactory from your standpoint? Yes.

10 May, 1898.

638. Do you desire to make a statement, showing the inconvenience to the people of Walgett because of the bad means of communication? Yes; the people settled in this part of the country suffer great inconvenience through not having facilities to get to market. They have practically no roads. In times of drought it is almost impossible to get supplies here. Teamsters coming here require almost to load up with fodder, and the freight is very high. Then if it comes on to rain they cannot travel. I have repeatedly had to pay my bills at the end of four months, and the goods have been still on the road. To settlers that is a very great handicap; in fact, I do not think that smaller settlers can eventually succeed unless they have better facilities for getting to and from market.

639. Do you think there is a probability of a collapse of some of the small holders if they do not get better means of transit? I do. I have been informed by some of the small holders that, at times, they have had stock fit for market, and dry weather has set in, and, owing to the manner in which the travelling stock routes are managed, it has been impossible to start them on the road. If there had been a railway they could have been trucked to market at once. I know of gentlemen who have invested largely here, and who have erected buildings on the understanding that we were to get a railway. I know of one gentleman who is contemplating selling all his property, and the doubt as to whether we will get a line seriously interferes with the prospect of his selling. With railway facilities the smaller men would go largely in for agriculture. They would combine sheep-farming with wheat-growing—many of them, in fact, have commenced already. Of course, if it were gone in for largely it would not be profitable without means of getting to market.

640. *Mr. Fagan.*] Do I understand you to say that there is a gentleman in the town who is trying to sell his property because he has doubts of the railway coming here? No; but the doubt as to whether the railway will be carried on to Walgett affects the sale.

641. If the line is carried to Pilliga only will it affect his property? No, it will improve it, but if there were a prospect of a line coming to Walgett it would make it more valuable still.

Bernard Joseph Martin, Post and Telegraph Master, Walgett, sworn, and examined:—

642. *Mr. Fagan.*] Do you know what is the revenue of your office? The last revenue, according to the Postmaster-General's report, was £1,970. B. J. Martin.

643. How long have you been at Walgett? Since the 15th of June last.

10 May, 1898.

644. Then you have barely twelve months' experience? I have the experience of the office which leads me to think that business is on the increase. When I first came here it was shearing-time, and the postal correspondence is heavier than during any other portion of the year. For two months after the shearing was over it fell back slightly, but it came again, and now I find a considerable increase in all mail matter. I find that I have to keep applying for more stamps every month. Generally speaking the volume of business is on the increase, and the mail matter is becoming quite cumbersome.

WEDNESDAY,

WEDNESDAY, 11 MAY, 1898.

[The Sectional Committee met at Eurie Eurie at 1.40 p.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Narrabri to Pilliga.

William Sim, licensed surveyor, Walgett, sworn, and examined:—

W. Sim. 645. *Chairman.*] Will you make a statement with regard to the country lying west from Walgett, with a view to railway construction therein? I am prepared to give a fairly accurate idea of the country lying west, from the point 310 miles on the "green line." In my opinion the "green line," as far as Eurie Eurie, lies on a dry ridge, and railway construction there will be found to be cheaper than on any other suggested route. To the south of the "green line," between it and the Dead Bullock warrambool, floods as high as 2 feet 6 inches may be experienced. Even in the 1893 flood there was a foot of water in the parish of Denham. Between the Dead Bullock warrambool and the river there is a sand ridge about Bugilbone. There are patches of higher country here and there, but the country, generally speaking, does not lend itself to the extension of a line such as the "green line" shown on the plan. East of Bugilbone you get into flooded country towards Drilldool, and you would experience as much difficulty in getting through there as you would from Eurie Eurie to Walgett. After careful consideration of the various routes, and with a full knowledge of the country, I believe, noticing the fact that from Eurie Eurie to within 2 miles of Walgett the country is liable to flood, still taking the line right through, it will be found to be the cheapest to construct. It will be the shortest, and a great portion of it will, as I have explained, be on dry country. Between Eurie Eurie and Walgett I would average the depth of water at about 2 feet in a heavy flood; but there are some warrambools which would require some extensive bridging. With regard to the cost, I am not prepared to express an opinion; but still I think my suggestion is the correct one. I estimate that the water will run about a mile an hour. From the 2-mile, warrambool country of about a similar elevation—I cannot state exactly what it is—would extend to very close on the left-hand side of the traffic bridge over the Namoi into Walgett—almost to the river. No doubt the Committee have information with regard to the character of the country, but in my opinion a large portion of the red country along the "green line" will be found very suitable for the growth of cereals. I do not think there is any climatic reason why the growth of cereals should not be a success.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

Railway from Narrabri to Pilliga.

SECTIONAL COMMITTEE.

APPENDIX.

A.

[To Evidence of G. F. Earp, Vice-President, Newcastle Chamber of Commerce.]

NARRABRI-PILLIGA-WALGETT RAILWAY.

Sir, Newcastle, 4 May, 1898.
In reference to evidence given by me on Saturday last, I beg leave to ask for permission to supplement my case as then presented, with the following:—
If the railway is made *via* Narrabri and Newcastle, the Walgett district is put in railway communication with Sydney also, at about same mileage (but avoiding the pull over the Blue Mountains), seeing that Newcastle line connects with Sydney.

The difference between the rail communication in the two routes, therefore, amounts to this:—

Produce.

Narrabri-Newcastle.—Gives access by rail to three markets, namely—

- (1) Maitland, second only to Sydney as a stock market.
- (2) Newcastle, with its large local trade, and fast increasing export of cattle, horses, &c., to New Caledonia, Victoria, West Australia, India. Regular lines of sailing vessels and steamers load wool, produce, timber, &c., at Newcastle for United Kingdom, Continent, &c., at lowest rates. Wool and produce can also be sent by steamer from Morpeth and Newcastle to Sydney at lower than rail freight.
- (3) Sydney, the metropolitan market.

Coonamble-Warren.—Would give access to Sydney only, thus shunting Maitland and Newcastle for no saving in haulage.

Supplies.

The same remarks apply to the purchase of supplies in both markets for shipment by (1) rail all the way from Sydney; (2) or by steamer, Sydney to Newcastle, at 4s. to 5s. per ton, and thence by rail; (3) or the supplies can be bought in Newcastle at about Sydney prices, and 113 miles haulage saved as compared with Sydney.

I feel that I need only call your attention to these facts, and that comment on my part is needless.

The Chairman, Public Works Committee.

Yours, &c.,
G. F. EARP.

A 1.

NUMBERS OF SHEEP, CATTLE, AND PIGS WHICH PASSED THROUGH MAITLAND SALE-YARDS DURING THE YEARS 1896-7.

Dear Sir,

In accordance with a request by Mr. Fegan, M.L.A., before the Public Works Committee, on their recent visit to Newcastle, I now beg to give you the numbers of sheep, cattle, and pigs which passed through the Maitland sale-yards during the last two years:—

Sheep.	Cattle.	Pigs.	
127,980	42,410	21,500	1896
154,327	41,261	14,617	1897

Yours, &c.,
A. BIRKETT, Secretary.

B.

[To evidence of T. Clarke, Secretary, Walgett Railway League.]

Sworn statement by THOMAS CLYDSDALE, THOMAS CARMODY, W. J. MADGWICK, JAMES CULLEN, W. G. EVANS, MAC-VIE FALCONER, and JOHN B. HUTCHINSON.

I am a drover; I have frequently taken stock from Queensland or the districts on the border to the railway, for carriage to market in Sydney; I know the various stock routes from the border to Narrabri; I am of opinion, the result of my experience, that the routes from Goodooga and Angledool to Walgett, *via* Wilby Wilby and Weetalibah respectively, are the best for stock to travel, owing to the greater facilities for obtaining grass and water on the road; I am further of opinion that a trucking station at Walgett, connecting with the line at Narrabri, would be availed of to a greater extent than one in any other locality in the district. And I make this solemn declaration, conscientiously believing the same to be true, and in virtue of the provisions of an Act made and passed in the ninth year of the reign of Her present Majesty, intituled "An Act for the more effectual abolition of Oaths and Affirmations, taken and made in various Departments of the Government of New South Wales, and to substitute Declarations in lieu thereof, and for the suppression of voluntary and extra-judicial Oaths and Affidavits."

* [One plan.]

1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

PARLIAMENTARY STANDING COMMITTEE ON
PUBLIC WORKS.

REPORT

TOGETHER WITH

MINUTES OF EVIDENCE AND PLAN,*

RELATING TO THE

PROPOSED RAILWAY

FROM

WOOLABRA TO COLLARENDABRI.

Presented to Parliament in accordance with the provisions of the Public Works Act,
51 Vic. No. 37.

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

* Omitted by Printing Committee.

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MEMBERS OF THE COMMITTEE.

LEGISLATIVE COUNCIL.

The Honorable FREDERICK THOMAS HUMPHERY, Vice-Chairman.
 The Honorable JAMES HOSKINS.
 The Honorable CHARLES JAMES ROBERTS, C.M.G.
 The Honorable WILLIAM JOSEPH TRICKETT.
 The Honorable DANIEL O'CONNOR.

LEGISLATIVE ASSEMBLY.

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 CHARLES ALFRED LEE, Esquire.
 JOHN LIONEL FEGAN, Esquire.
 THOMAS HENRY HASSALL, Esquire.
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MEMBERS OF THE SECTIONAL COMMITTEE

THOMAS THOMSON EWING, Esquire, Chairman.
 The Honorable CHARLES JAMES ROBERTS, C.M.G.
 JOHN LIONEL FEGAN, Esquire.
 THOMAS HENRY HASSALL, Esquire.

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Woolabra to Collarendabri Railway.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

RAILWAY FROM WOOLABRA TO COLLARENDABRI.

REPORT.

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS, appointed during the first Session of the present Parliament, under the Public Works Act of 1888, 51 Vic. No. 37, the Public Works Act Amendment Act of 1889, 52 Vic. No. 26, and the Public Works (Committees' Remuneration) Act of 1889, 53 Vic. No. 11, to whom was referred the duty of considering and reporting upon "the expediency of constructing a line of railway from Woolabra to Collarendabri," have, after due inquiry, resolved that it is not expedient the railway as proposed should be constructed, but they suggest a route by which a railway would go from Narrabri towards Eurie Eurie, and, at a point about 315 miles from Newcastle, proceed in a north-westerly direction to Collarendabri; and, in accordance with the provision of sub-section IV, of clause 13, of the Public Works Act, report their resolution to the Legislative Assembly:—

ORIGIN OF THE PROPOSAL.

1. The proposed railway, the Committee are informed, originated in an expression of opinion from the Sectional Committee appointed in 1893 to inquire into the merits of the railway since carried out from Narrabri to Moree, that if the whole area concerned in the Narrabri-Moree railway question were to be properly served it could only be done by two lines: the Narrabri-Moree line, and a western line following the driest belt of country, which is apparently south of Thalaba Creek, and eventually reaching Collarendabri. In view of the importance of the western trade, they thought it would be well for a full exploration and survey to be made of the country towards Collarendabri, and they suggested that a survey should be started from a point between Narrabri and Edgeroi, thus utilising the bridge which would be constructed over the Namoi on the direct route.

Consequent upon this, an examination of the country was made, and a report forwarded to the Minister for Public Works, pointing out that the most favourable line to construct, as serving the best interests of the district, would be one leaving Edgeroi station, on the Narrabri-Moree railway. Explorations were also made of routes from Narrabri West *via* Gurleigh Point, and from Narrabri West between Wee Waa and Pilliga, crossing the Namoi at the best crossing possible, and thence proceeding towards Burren and Mercadool.

In April, 1896, the Engineer-in-Chief for Railway Construction was authorised to make a survey of the direct route, and this was completed by May, 1897, the starting point being altered from Edgeroi to Woolabra, so that the line should pass near Millie.

DESCRIPTION OF THE PROPOSED RAILWAY.

2. The total length of the proposed railway is 80 miles 56 chains, but the last 10 miles being through country flooded by the overflow of the Barwon River, it is a matter for consideration whether the line should not stop at a point 10 miles from Collarendabri. By junctioning at or near Woolabra, the railway for the greater part of its length can be kept between the water-courses and on fairly high ground.

According

According to the official description, the line commences as a branch from the Narrabri to Moree railway, close to Woolabra station, at 284 miles 16 chains from Newcastle, and, consistent with keeping on the highest ground between the main creeks running westward, and therefore most free from flood, runs as directly west as possible to 334 miles.

At that distance a more northerly direction is taken, following down the Thalaba River, which is crossed, to water reserve No. 4,201, at 353 miles, where the limit of the ordinarily dry country is reached. Beyond this point the line follows the travelling stock reserve No. 4,200, and, crossing the Barwon River near 362 miles, takes a westerly course to Collarendabri, ending at 364 miles 72 chains.

The line is a surface one with very light works for the 70 miles to the reserve at 353 miles; the remaining 10 miles, being in extensively flooded country, require a considerable amount of bridging, in addition to that necessary for the Barwon River. Very little private land is touched.

ESTIMATED COST.

3. The estimated cost of the line for its full length is £207,798, and for the reduced length 69 miles 64 chains, £160,362. These figures show an average cost per mile of £2,574 19s. for the whole distance, £2,297 9s. for the shorter length, and £4,351 18s. 6d. for the last 10 miles.

RAILWAY COMMISSIONERS' REPORT.

4. The Railway Commissioners report favourably of the line as one which has merit, and is worthy of consideration, but they estimate an annual loss from it of £5,904. Their figures are based on the estimated cost of the full length of the railway. Interest on capital expenditure at 3 per cent. amounts to £6,234, and the cost of maintaining permanent way and other traffic and locomotive expenses is estimated at £6,860, which, together, make £13,094. Against this, the traffic estimate shows £7,190, comprising £5,418 for the carriage of live stock and goods, and £1,772, coaching and mails.

The line, the Commissioners remark, "would open up a good class of country and probably form the basis of further extension later on in a north-westerly direction"; but, in view of the country in the immediate vicinity of Collarendabri being unsuitable for cheap railway construction, they regard it as a matter for consideration whether, in the event of the railway being approved, it should not for the present stop at the point where this flooded country begins.

THE TRAFFIC ESTIMATE.

5. The details of the traffic estimate, which are given in a report by the Chief Traffic Manager, Department of Railways, are as follows:—

Wool, 4,554 tons	...	...	...	...	...	...	...	£2,224	
Goods, 1,686 "	...	...	...	...	...	...	...	1,537	
Stock, 2,000 trucks	...	...	...	...	...	...	...	1,657	
									5,418
Passengers, 1,500, at 8s.	...	...	...	...	...	...	...	600	
Sundries	...	...	...	...	...	...	...	200	
Mails	...	...	...	...	...	...	...	972	
									£7,190

For the purposes of the estimate the season 1894-1895, admitted to have been the best the district has experienced, was taken, a liberal margin being allowed for a development in the livestock traffic which would follow rail transit becoming available to small holders for the moving of small consignments of stock; and the rates calculated are an extension of those charged on the Narrabri to Moree line.

"As far as the prospects of the line are concerned," the Chief Traffic Manager remarks in his report, "there is no doubt that it is deserving of the utmost consideration in connection with any steps which may be taken towards either a westerly extension or an improvement of the river navigation." The district traversed by the line, he states, is one of the best stock areas in New South Wales, producing

producing a very large quantity of wool and fat stock, and, in addition to the traffic arising from this source, the line would attract traffic from the north-west of Angledool, and from as far north as the Australasian Pastoral Company's properties in Southern Queensland, if the traffic from there were not secured by Queensland railway extension to St. George.

"It should, however, at the same time be borne in mind," he goes on to say, "that projected lines have been submitted for consideration which would more or less affect the traffic claimed by this district. For instance, the proposed line between Narrabri and Pilliga would most certainly receive a portion of the traffic claimed by the Collarendabri people, and it is equally certain that it would secure the Walgett traffic which was claimed, at least for passenger purposes, by the supporters of the line under consideration. Again, either a navigable river or railway between Brewarrina and Byrock would, to a certain extent, tap more of the south-western district, which the Collarendabri people claim to be within their trafficable area."

LAND IN THE DISTRICT SERVED BY THE RAILWAY.

6. Within the area which would be served by the proposed railway—that is, within 20 miles of the line on each side, converging to a point at Woolabra so as to make allowance for the influence of the Narrabri-Moree Railway—there are, according to information supplied to the Committee by the Chief Draftsman of the Department of Lands, 972,780 acres of alienated land, 370,340 acres of reserves, and 421,610 acres of Crown land. Of the Crown land the leasehold areas comprise 195,800 acres, the leases of which will expire between the present year and the year 1900, and 143,200 acres, the leases of which will expire in 1918. About 60,000 acres of Crown land are now being prepared for settlement lease.

ALTERNATIVE LINES.

7. In the course of the inquiry it appeared to the Committee to be possible to find between the routes of the proposed railways from Woolabra to Collarendabri and Narrabri to Pilliga a route for a railway which would more satisfactorily serve the district and be more desirable in the public interest than either or both of the proposed lines, and the Minister for Public Works was asked to arrange for an exploration of the country north of the Namoi River, with the object of ascertaining the merits of a line between Narrabri and Eurie Eurie, and also to have an examination made of the country between Moree and Collarendabri. This was done by an officer of the Railway Construction Branch, who reported, with regard to a route from Narrabri to Eurie Eurie, that, taken as a whole, with the exception of 10 miles of more or less flooded country between the Boolcarrol-road and Keilaher's Hotel, 36 miles from Narrabri, it might be considered a good one, as no main watercourse except Pian Creek has to be crossed, and the route follows, for a great portion of the way, low dividing ridges specially adapted for drainage. A railway by this route would terminate at a distance of about 103 miles from Narrabri, and about $1\frac{1}{2}$ mile from Eurie Eurie station, close to where the travelling stock routes—Walgett to Wee Waa and Narrabri and Walgett to Collarendabri—meet, and about 12 miles from Walgett (which is accessible by a bridge across the Namoi), and 40 from Collarendabri. The country passed through is described as probably some of the best in the district, and the line, it is thought, would get as large an amount of traffic as any other. Timber suitable for railway construction is available on the southern side of the river; ballast would have to be brought from some distance.

The report on the country between Moree and Collarendabri, with reference to a direct route on the north side of the Gwydir or Meehi River, refers to three routes, any one of which is practicable, but states that owing to the flooded nature of the country, necessitating high embankments, as well as the number of bridges which would have to be constructed, no line in this direction is advisable at the present time, nor would it bring in as much traffic to the railways as a line further south.

SECTIONAL COMMITTEE'S REPORT.

8. The Sectional Committee appointed to inspect, take evidence, and report with reference to the proposed railway, regarded this line and that from Narrabri to Pilliga as closely associated. Consequently they dealt with the two railway proposals—Woolabra to Collarendabri and Narrabri to Pilliga—together, and at the same time investigated, as far as possible, the route mentioned in the report of the officer of the Railway Construction Branch, with a view to ascertain how far it would be suitable for railway communication with Collarendabri. They found that a line by this route from Narrabri, would, for the first 60 miles, prove a suitable approach to both Collarendabri and Walgett, turning off north-west across Thalaba Creek to the former place, and somewhat south of west through Eurie Eurie to the latter. In the construction of this line to Collarendabri, for the first 15 miles—that is, to the north side of Burren Creek—there would, the Sectional Committee say, be no difficulties. From that point there would be a few miles of low country not offering any serious obstacle to the construction of the railway; and further on, *via* Merrywinbone, east of which it would join the proposed line from Woolabra, at about 340 miles from Sydney, to within 10 miles of Collarendabri, no serious difficulty would be encountered. Beyond this there is some flooded country, and the Grawin Creek and the Barwon would require bridging. Thence into Collarendabri there is no engineering difficulty.

It was stated by the Department, the Sectional Committee observe, that it would be well to make the terminus of the line some 11 miles from Collarendabri, but as it appears that the line will some day be extended towards Angledool, it will be as well to preserve the centre already established by the Government and bring the line adjacent to the town, the position of the terminus to be so chosen that the approach to the west shall be the best obtainable.

The country which will be developed by the two lines, Woolabra to Collarendabri and Narrabri to Pilliga, is, generally speaking, the report of the Sectional Committee states, bounded on the east by the Moree-Narrabri line, and its extension towards Newcastle; on the north by the limits of such traffic as may reach Collarendabri, or any portion of the line from there to Woolabra, in preference to Moree; that area of country extending beyond Angledool to the Queensland Border, traffic from which will probably reach Collarendabri and Walgett in preference to Brewarrina, were a railway constructed to the latter place, and that portion of the Colony of Queensland the traffic from which would find its way, *via* Angledool, Mogil Mogil, or any routes to the north, to Collarendabri or Walgett. On the south its limits would be first affected by the proposed railway to Coonamble.

For the purposes of their inquiry the Sectional Committee inferred that it is possible railways will be extended as far as Coonamble and Brewarrina within a reasonable time, and they desired to lay down the limits of the country with regard to which no doubt better accommodation would be given by termini at Walgett and Collarendabri than by any other scheme. The Moree-Narrabri line, they state, will serve all areas lying, say, 25 miles west therefrom. The Coonamble line will possibly draw the traffic half-way between that place and Walgett. Angledool traffic will probably reach Collarendabri or Walgett. Weetalibah and Goodooga may, however, be considered debatable country from which it is probable some produce will find its way to Brewarrina.

As a recent Queensland *Government Gazette* notice removed the £2 10s. duty on wool shorn across the Border from within a distance of 30 miles therefrom, the Sectional Committee considered it very probable that the wool grown and stock depastured within this 30-miles limit will find its way to New South Wales, and they are of opinion further that, as the influence of railways to Collarendabri and Walgett would probably extend another 30 miles northwards, the area of New South Wales railway influence may be taken as 60 miles north of the New South Wales boundary, extending to midway between Walgett and Coonamble—say about Combogolong—on the south, to midway between Walgett and Brewarrina on the west, and to within 25 miles of the Moree line on the east. The country is pastoral, but contains extensive tracts suitable for agriculture.

River competition is a matter affecting the question of a railway to Collarendabri or Walgett, and the Sectional Committee found that although, at times, the river traffic might affect the returns of the railway, it would not happen frequently.

“ Even

“Even as far as Walgett,” they say, “the Barwon River cannot be regarded as a reasonable outlet to so important a district; and that being so, it is clear that an approach by the Barwon to Collarendabri for ordinary trade purposes is out of the question.”

ROUTE OF THE RAILWAY SUGGESTED BY THE SECTIONAL COMMITTEE.

9. The line to Collarendabri, as suggested by the Sectional Committee, would be identical with that from Narrabri to Eurie Eurie and Walgett for 60 miles, at which distance it would reach a point about 315 miles from Newcastle. It would then branch off in a north-westerly direction, passing west of Burren, until it joined the surveyed route from Woolabra to Collarendabri, a few miles from the crossing of Thalaba Creek at Merrywinbone, and by that route it would proceed the remainder of the distance to Collarendabri.

ADVANTAGES FROM A RAILWAY BY THE AMENDED ROUTE.

10. The advantages to be gained from the construction of a railway by the amended route are stated by the Sectional Committee in the following extract from their Report:—

“The length of the two lines (Woolabra to Collarendabri, and Narrabri to Pilliga) would be somewhat over 36 miles 56 chains, these being the proposals of the Government; but should the Committee be right in the conjecture that Walgett is the objective point of the Pilliga line the length would then be 195 miles. If the line now recommended to serve the two routes be constructed there will be a saving in distance of about 40 miles over the last-mentioned distance, and in cost of construction a sum approaching £100,000. The only question, therefore, remaining to be considered is, whether the development by this method will be as satisfactory as that proposed by the Government. In the opinion of the Sectional Committee the scheme is better, because it gives a shorter length of haulage from Walgett, and passes through superior country. The extent of Crown lands on the two lines, namely, Narrabri to Walgett on the north side of the Namoi, and *via* Eurie Eurie, and from 315 miles on that line to Collarendabri, amounts to 1,609,000 acres, which will be readily taken up in small areas. The returns from these lines will be satisfactory. The only reduction from the returns in the proposed lines will be in regard to some country lying about Bunna Bunna and Millie, which will be within reasonable distance of the Moree line and will make to it.”

THE COMMITTEE'S RECOMMENDATION.

11. The Committee agree with the Sectional Committee's suggestion with regard to the route described, and recommend that the necessary survey be made. The resolution passed by them is as follows:—

“That, in the opinion of the Committee, it is not expedient the proposed Railway from Woolabra to Collarendabri, as referred to the Committee by the Legislative Assembly, be carried out; but they suggest a route by which a Railway would go from Narrabri towards Eurie Eurie, and, at a point about 315 miles from Newcastle, proceed in a north-westerly direction to Collarendabri.”

THOS. EWING,
Chairman.

Office of the Parliamentary Standing Committee on Public Works,
Sydney, 23 June, 1898.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC
WORKS.

MINUTES OF EVIDENCE.

RAILWAY FROM WOOLABRA TO COLLARENDABRI.

WEDNESDAY, 9 MARCH, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee proceeded to consider the expediency of constructing a line of Railway from Woolabra to Collarendabri.

Robert R. P. Hickson, Under Secretary and Commissioner for Roads, Department of Public Works, sworn, and examined:—

1. *Chairman.*] Have you a statement to make in regard to the proposed Railway from Woolabra to Collarendabri? Yes. It is as follows:—

R. R. P.
Hickson.

THE first step with regard to this proposal appears to have been taken by the Sectional Committee appointed to inquire into the merits of the proposed railway from Narrabri to Moree, when they came to the conclusion that if the whole area of country concerned in that railway (Narrabri-Moree) question was to be served properly it could only be done by two lines, viz., Narrabri-Moree line and a western line following the direct belt of country which is apparently south of Thalaba Creek, and eventually reaching Collarendabri. They were of opinion that the importance of the western trade warranted a full exploration and survey of the country towards Collarendabri, and suggested that the survey should be started from a point between Narrabri and Edgeroi, thus utilising the bridge constructed over the Namoi on the direct route.

9 Mar., 1898.

Mr. Stuart, of the Railway Survey Branch, was accordingly instructed to make an examination of the country, which was completed on the 16th October, 1894, and Mr. Firth (Acting Engineer-in-Chief) in forwarding his report to the Minister pointed out that the most favourable line to construct, as serving the best interests of the district, would be that leaving Edgeroi station (on the Narrabri-Moree line), the total distance to Collarendabri being 83 miles; out of this 73 miles could be constructed for about £2,270 per mile, but the next 10 miles into the town would probably cost £3,050 per mile, making the average cost £2,362 per mile, or a total of £196,046.

At the time Mr. Stuart was making an examination of the direct route, Mr. Staveley, of the Upper Barwon Progress Association, urged that the line be taken from Narrabri West *via* Gurlough Point to or near Collarendabri; and Mr. Collins, M.P., also advocated the construction of a line from Narrabri West between Wee Waa and Pilliga, crossing the Namoi at the best crossing possible, thence towards Burren Gorrear and Mercadool. The Minister approved of explorations being made of both these routes, which was accordingly done by Mr. Stuart, under instructions from Mr. Firth.

No further action appears to have been taken until April, 1896, when the Minister, desirous of submitting the proposal to Parliament with a view to referring it to the Public Works Committee, authorised the Engineer-in-Chief for Railway Construction to make a survey of the direct route, which upon Mr. Deane's recommendation it was decided should leave the Narrabri-Moree line at Woolabra, passing near Millie.

When the Minister (Mr. Young) was at Moree, in April, 1897, Mr. Hassall, M.P., introduced a deputation from the residents of Collarendabri and district, urging that the railway be extended to that town.

The deputation stated that the proposed line would bisect an enormous tract of country at present used exclusively for pastoral purposes, on which were depastured no less than 1,300,000 sheep (irrespective of large stock), and the wool from nearly all these sheep was at present carried on the roads leading to and from Collarendabri and Narrabri, and would no doubt be sent by rail if a line connecting with the main line were constructed. Other statistics were also quoted by the deputation. The Minister, in reply, promised to consider the matter, and refer the proposal to the Railway Commissioners.

Mr. Willis, M.P., also forwarded a petition from the residents of Collarendabri and district in favour of this line.

The survey was carried out by Surveyors Walker and Calvert, and its completion reported to the Minister by the Engineer-in-Chief on the 17th May, 1897.

Mr. Deane pointed out that the total length of the line into Collarendabri is 80 miles 56 chains, but the last 10 miles are through country flooded by the overflow of the Barwon River, and it was therefore questionable, if the line were constructed, whether it should not stop at a point 10 miles from Collarendabri. The length of the line to this point is 69 miles 64 chains, and the estimated cost £160,362, or about £2,300 per mile.

The length of the remaining part, including the crossing the river into Collarendabri (10 miles 72 chains) is estimated to cost £47,436, or about £4,352 per mile.

R. R. P.
Hickson.

The Minister on the 20th May, 1897, asked the Railway Commissioners for their report on the proposal, of which the following is a copy :—

9 Mar., 1898.

Proposed Line of Railway, Woolabra to Collarendabri—80 miles 56 chains.

In accordance with the provisions of the "Public Works Act of 1888," section 13, we beg to report as under :—

Cost of Construction—

The Engineer-in-Chief for Construction estimates the cost of construction of a light railway line (exclusive of land and compensation) at £207,798

Annual Cost—

Capital expenditure, at 3 per cent £6,234
Cost of maintaining permanent way, and for traffic and locomotive expenses 6,860

Total annual cost..... £13,094

Traffic Estimate—

Live stock and goods..... £5,418
Coaching and mails 1,772

Total estimated traffic £7,190

The proposed line has merit and is worthy of consideration. It would open up a good class of country and probably form the basis of further extension later on in a north-westerly direction.

It is unfortunate that the country in the immediate vicinity of Collarendabri is unsuitable for cheap railway construction, and it is a question whether, in the event of the line being favourably considered, it should not, for the present, stop on the edge of this country, which will be about 10 miles from Collarendabri.

CHARLES OLIVER,
Commissioner.
W. M. FEHON,
Commissioner.

The proposed line commences as a branch from the Narrabri to Moree railway close to Woolabra station at 234 miles 16 chains from Newcastle, and runs as directly west as possible to 334 miles, consistent with keeping on the highest ground between the main creeks running westward, and hence most free from flood.

At 334 miles a more northerly direction is taken, following down the Thalaba River, which is crossed, to water reserve No. 4,201 at 353 miles, where the limit of the ordinarily dry country is reached. Beyond this point the line follows the travelling stock reserve No. 4,200, and crossing the Barwon River near 362 miles, takes a westerly course to Collarendabri, ending at 364 miles 72 chains.

The line is a surface one with very light works for the 70 miles to the reserve at 353 miles, the remaining 10 miles, being in extensively flooded country, require a considerable amount of bridging, in addition to that required for the Barwon River. Very little private land is touched.

2. The Railway Commissioners suggest that the line should stop 10 miles this side of Collarendabri? They think that the matter is worthy of consideration.

3. How much would that lessen the cost of the line? By £47,436.

4. If the suggestion of the Railway Commissioners were carried out, the line would cost £160,362? Yes.

5. On page 18 of Mr. R. E. Jones' report on proposed railway extensions, ordered by the Legislative Assembly to be printed on the 29th July, 1891, he deals with a line (No. 19) from Narrabri West *via* Collarendabri to Angledool;—has the Department seen that report? Yes.

6. If Collarendabri is to be approached by railway, the one now before the Committee appears departmentally to be the best connection? Yes.

7. Have you any survey running from Moree due west? I do not think there is.

8. Is that country departmentally known? I do not know it myself. I do not know anything west of Moree and Narrabri.

9. *Mr. Hassall.*] Do you know the country between Moree and Collarendabri? No.

10. There is no survey made in that direction, is there? Not that I know of. Mr. Deane could tell you.

11. There was a survey, I think, made some years ago, running through the water-course country out towards Mungindi? That I could not tell you.

12. Looking at the map, and in view of the extension of the line of railway from Moree to Inverell, does it not strike you that it might be advisable to inquire into the character of the country lying between Moree and Collarendabri, and as to what engineering difficulties there might be in the way of extension from Moree to Collarendabri? It is undoubtedly worth inquiring into.

13. In view of the extension from Moree to Inverell, is it not probable that at some future date an extension may be made from Inverell to the eastern coast? I suppose it will come in time.

14. Well, in the event of that being done, and in view of a line being constructed westerly as far as Moree, do you think it would be good policy on national grounds to extend the railway further west from Moree, giving the people of the north-western district practically the choice of two routes—that is, whether they would go along the present existing line of railway to Newcastle and Sydney, or prefer to send their traffic eastward to any harbour that might be selected on the coast, provided that the railway were constructed to it? Yes.

15. Leaving that part out of the question, can you tell why it is proposed to go as far as Woolabra on the Narrabri-Moree line in order to get an extension westward to Collarendabri? Mr. Deane will be able to explain that better. The whole of that country has been looked into, and Mr. Deane believes this to be the best connection.

16. I believe it is no part of your policy to try to send people much further round than there is any necessity for? No.

17. Well, looking at the map, does it not strike you that an extension towards Collarendabri from Narrabri would serve the country and the people better than an extension from Woolabra to Collarendabri—that is leaving the Moree extension out of consideration? It is a matter of £ s. d. The distance would not be much longer round by Woolabra, and the saving, I think Mr. Deane will tell you, would be considerable.

18. *Mr. Roberts.*] Is this line put forward in the hope of securing any of the Queensland trade? Yes; I think that the Commissioners look forward to getting some of the Queensland trade.

19. Some of the Queensland traffic that at present goes to Brisbane? Yes.

20. Is it in contemplation to connect Collarendabri with Angledool? Not immediately; but probably that would come in time.

21. That will be the ultimate terminus of the line? Probably.

22. Are you able to tell the Committee what proportion of the traffic would come over the Queensland border to Collarendabri? I cannot tell you that. The Railway Commissioners would be able to give you that information.

Henry

MINUTES OF EVIDENCE—RAILWAY FROM WOOLABRA TO COLLARENDABRI.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and examined:—

23. *Mr. Humphery.*] Have you brought a statement for the information of the Committee? No; I have no further statement. I can give the Committee the details of the estimate, and I will hand in some plans and the book of reference.

H. Deane.
9 Mar., 1898.

24. Will you read the details? Yes; they are as follows:—

WOOLABRA TO COLLARENDABRI.—Part No. 1, 284 m. 16 c. to 354 m.

ESTIMATED cost of a single line of railway 69 miles 64 chains in length, with 60-lb. rails. Ruling grade, 1 in 100; sharpest curve, 15 chains radius.

Description.	Estimated Cost.			Average per mile.
	£	s.	d.	
Earthworks.....	14,671	0	0	210
Timber bridges and small timber openings.....	9,812	10	6	141
Level-crossings, cattle-stops, fencing, &c.....	3,130	0	0	45
Permanent-way materials.....	43,548	11	0	624
Freight, &c.....	12,044	10	0	173
Plate-laying at 1s. = £6,142 8s.	37,315	1	0	535
Ballasting ($\frac{1}{2}$) at 3s. 6d. = £5,374 12s.....				
Sleepers at 3s. = £25,798 1s.....	6,543	0	0	94
Station works, including sidings and junction.....				
Station buildings—passenger building, £300; waiting-sheds, £625; platforms, £600; station-master's house, £700; goods-sheds and platforms, £850; loading-banks, £650; trucking-yards, £1,120; engine-shed, £500; coal-stage, £150; carriage-shed, £250; two turntables, £1,100; 5-ton cranes, £440; 20-ton weighbridges, £600.....	7,885	0	0	113
Water supplies.....	4,500	0	0	64
Telegraph.....	1,047	0	0	15
Gradient and mileage posts.....	1,047	0	0	15
Miscellaneous.....	1,000	0	0	14
Cost of works.....	£142,543	12	6	.....
Engineering and contingencies, 12½ per cent. (nearly).....	17,818	7	6	255
Total cost.....	£160,362	0	0	.....
Average cost per mile.....	£2,297	9	0	.....

WOOLABRA TO COLLARENDABRI.—Part No. 2.

ESTIMATED cost of a single line of railway 10 miles 73 chains in length, with 60-lb. rails. Ruling grade, 1 in 100; sharpest curve, 15 chains radius.

Description.	Estimated Cost.			Average per mile.
	£	s.	d.	
Earthworks.....	2,930	0	0	269
Timber bridges and small timber openings.....	10,650	10	0	977
Larger bridges.....	10,391	0	0	953
Level-crossings, cattle-stops, fencing, &c.....	320	0	0	29
Permanent-way materials.....	6,805	13	6	624
Freight, &c.....	2,214	0	0	203
Plate-laying at 1s. = £959 4s.	6,858	7	0	629
Ballasting ($\frac{1}{2}$) at 5s. = £1,199.....				
Sleepers at 3s. 6d. = £4,700 3s.	569	0	0	52
Station works.....				
Station buildings—waiting-shed, £100; loading-bank, £100; trucking-yards, £400.....	600	0	0	55
Telegraph.....	163	10	0	15
Gradient and mileage posts.....	163	10	0	15
Miscellaneous.....	500	0	0	46
Cost of works.....	£42,165	10	6	.....
Engineering and contingencies, 12½ per cent. (nearly).....	5,270	9	6	484
Total cost.....	£47,436	0	0	.....
Average cost per mile.....	£4,351	18	6	.....

Part No. 1.—69 m. 64 chs. £160,362, or £2,297 9s. 0d. per mile.

„ 2.—10 m. 72 chs. £47,436, or £4,351 18s. 6d. „

Total..... 80 m. 56 chs. £207,798, or £2,574 19s. 0d. „

In the estimate of the first part, I should say that, on the assumption that the line, if constructed, would stop short of the river and flat country, the terminal station and works have been included, and therefore, in the second part, station works appear very small and do not include the terminal station at Collarendabri. It is clear that if the line were to stop 10 miles short of Collarendabri the terminal arrangements would have to be made there, and also that if the line were carried on to Collarendabri the actual cost due to the extension merely would be the cost of the construction of the line, and perhaps simply a small station at the end of part 1, instead of the large terminal arrangements.

25. That is to say, you have included in your estimate of the first portion of the line the terminal station expenses? Yes.

26. So, without the cost of terminal station, the estimated cost, £2,300 per mile, for the first portion of the line would be reduced? Yes.

27.

- H. Deane.
9 Mar., 1898.
27. Appreciably? It would make a little difference. It would very likely be a matter of £200 or £300 per mile on the second part.
28. Have you included in your estimate of the second portion the cost of the bridge? Yes.
29. What have you allowed for the bridge? I have allowed for the whole of the bridges—that is, bridges over the openings, and the bridge over the Barwon—nearly £21,000.
30. How much for the bridge over the Barwon? That would be a very difficult matter to say, because there are several depressions and ana-branches which might be considered as part of the river.
31. Would the £21,000 cover the whole cost of the approaches to, as well as the construction of, the bridge? Yes; I think that would fairly cover the cost. I should like to say, however, that I think that it is quite possible that if this line were constructed, the waterways included in the estimate would have to be increased, and, that is to say, the contingencies drawn upon. But I believe that the total of the estimate—that is, including the two parts—is quite sufficient to cover the cost of the line. I have gone into the matter as carefully as possible with the officers who have been over the line, and the Committee may take the estimate as being correct.
32. That is to say, that the whole of the work would be carried out for about £200,000? £207,798.
33. With regard to the first portion of the work, have you satisfied yourself by careful examination of the reports and figures placed before you by your officers, that that portion could be carried out for £160,000? Yes.
34. Have you personally examined the proposed line? No; I have not been over the line. I have had very little time at my disposal. I have been very busy in the office, and it was considered by the Minister unnecessary that I should go over the line.
35. What portion of it have you examined? I have not examined any portion of it except the junction at Woolabra. Of course I know the class of country that is to be found in the north-west.
36. The route appears to have been selected upon your recommendation? Yes.
37. Will you be good enough to say in what way you were influenced to select the starting-point at Woolabra? In the first place, I wish to say that my recommendation only went so far as to fix the junction-point on the Moree line. The instructions that I had were to make a junction with the Moree line somewhere, and it was at first proposed to make it at Edgeroi; but I think that anyone will see, on an examination of the map merely, and from a knowledge of the water-courses in that country, that the best place to junction at is somewhere near Woolabra, because you can then follow down for the greater part of the length of the line between the water-courses and keep on high ground. The consequence of taking the position of the line as now adopted is that we keep on fairly high ground. We cross a creek a little way out of Woolabra which is not at all troublesome, and further on we get the crossing of Boggy Creek, and further down again we get the crossing of Thalaba Creek; but those are the only crossings. They are not very troublesome, and we have thus but few to deal with. If you were to start from nearer Narrabri, but still, of course, from a junction on the Moree line, you would have more water to cross. By keeping a mile or two nearer Narrabri, it is true you would avoid the crossing of Gehan Creek, but you would lose the advantage of making your junction at a recognised station. That is an important point. Woolabra is a station very suitable for a junction, or, at least, one which could be expanded so as to make it suitable for a junction; whereas if you were to start on this side of Woolabra you would have to make a new station altogether, because, even if you take Edgeroi, Edgeroi is really merely a siding; therefore, Woolabra is the best place on the line at which to make a start.
38. We may take it, then, that you were influenced solely by engineering reasons in selecting Woolabra as the starting-point? Yes.
39. And having given full consideration to all other points, from which it would be possible to extend the line, it is your opinion that that would be the best starting-point? Yes; I am convinced that is so.
40. It has been suggested that, in view of the construction of a railway from Moree to Inverell, Moree would be a more suitable starting-point than Woolabra;—what have you to say to that? It would make the distance to Sydney very much longer, and I should be afraid that a great deal of difficulty would be encountered in the way of water and flooded land. We should have to follow the Gwydir down.
41. With regard to the distance to Newcastle, which would be the nearest port on the coast;—what would be the difference between a line from Collarendabri, *via* Moree and Inverell, to Grafton, Casino or Coff's Harbour, and a line from Collarendabri, *via* Woolabra, to Newcastle? The distances by the most recent survey from Collarendabri to the undermentioned ports, &c., are—Grafton, *via* Moree and Glen Innes, 378 miles; Casino, *via* Tenterfield, 420 miles; Coff's Harbour, *via* Grafton, 430 miles; Coff's Harbour, *via* Guyra, 426 miles; Newcastle, *via* Narrabri, 364 miles.
42. Is the opinion that you have expressed in regard to the character of the country between Moree and Collarendabri based on your personal inspection of it, or on information that you have in the office? It is based on the features of the country as seen on the map. Full information could only be obtained by an actual inspection of the country; but at the same time I think it must be apparent to anyone who examines the map that there is a probability of difficulty from water. There is no doubt that the river Gwydir and its tributaries break over and join at different points, and that that means there must be a lot of flooded country which it is impossible to avoid.
43. Therefore, you are of opinion that the proposal now under consideration would be the less costly method of giving railway communication to Collarendabri? Yes.
44. You are aware that there is under the consideration of the Committee a proposal to construct a railway from Warren to Coonamble? Yes.
45. If the railway were extended from Coonamble to the flooded country in the direction of Walgett, what would be the distance from Coonamble to that portion of the country to which the railway could be carried at what you regard now as about the minimum cost? There would be no difficulty in reaching Walgett without passing through much flooded country. The distance from Coonamble is 69 miles. The estimated cost based on present prices would be £179,400.
46. Have you any figures showing the probable cost of an extension from Narrabri to Collarendabri *via* Wee Waa, or any suggestion of that kind? There have been suggestions, and Mr. Stuart examined the country, and made some reports.
47. Do you happen to have with you a copy of Mr. Stuart's report with reference to a suggested line from Narrabri West, *via* Collarendabri, to Angledool? I have the report of the exploration to Mercadool, but he does not give any estimate. There is a report of his, dated 14th December, 1894, dealing with a proposal to

to connect Narrabri and Collarendabri, and there is another report of the same date dealing with a proposal to connect Narrabri and Mercadool. Following is what he says about a connection with Narrabri direct:—

H. Deane.
9 Mar., 1898;

The country passed through from Narrabri to near the Namoi is dry sandy loam; from there to Boolcarrol boundary it is black soil liable to floods. The flood-waters of Galathera, Ten-mile, and Boggy Creeks spread out over the low country, (one place being called Jews' Lagoon) and, in the case of a very high flood would, in conjunction with the flood-waters of the Namoi River and Thalaba Creek, practically form a sheet of water with some dry patches. From Boolcarrol boundary to near Bulyeroi the greater portion is dry country with low red ridges; thence, to the crossing of Thalaba Creek, fairly dry soil with some swampy patches, but said not to be flooded. The northern side of the Thalaba, between Bulyeroi and Merrywinbane, appears higher, but there are some water-courses, presumably overflows of the Moomin, to cross. From the Thalaba to the point A, and thence to the end, the country passed through is the same as I stated in my previous report, Edgeroi to Collarendabri.

48. Did Mr. Stuart report on a suggested line from Narrabri West to Moree *via* Gurleigh Point? I do not remember whether he did.

49. Have you any report from Mr. Stuart in reference to the whole of that country between Walgett and Angledool, between Woolabra and Collarendabri, and any other portion which is likely to come under consideration in dealing with the various proposals now before the Committee? There are these reports which I have in my hand at the present moment. In the report dealing with Mercadool Mr. Stuart mentions a proposed crossing of the river midway between Wee Waa and Pilliga. I think that the result shows that the line as submitted to the Committee now is the only fairly dry line that could be found. Any connection starting from Narrabri West, and going direct towards Mercadool or Collarendabri would have to cross not only the Namoi, but would pass through a great deal of flooded country. It really would be a question of expense. The flooded country could be got over, but it means a great deal of expense in bridging.

50. You not having personally examined the country, and your information being only that furnished to you by your surveyors, I suppose you are not prepared to say in what way the proposed line would serve the whole of that district? No; that is a matter which I do not deal with so much as those do who have been specially instructed to deal with traffic.

51. Your information will guide the Committee only as to the cost of the construction of the line, and the practicability of the route? Yes, I look at it purely from an engineering standpoint. If estimates were required for the sake of comparison from Narrabri West crossing the Namoi below Narrabri, it would be necessary, in the first place, to have levels taken throughout, because it would be impossible merely from an inspection to say what the cost of construction through that country would be.

52. In the event of a railway being constructed from Narrabri to Pilliga—which is one of the proposals now before this Committee—what would be the distance from Pilliga to the point, to which you have referred in your evidence, within 10 miles of Collarendabri? About 50 or 55 miles.

53. What is the distance from Wee Waa direct north to the proposed line and from Pilliga direct north to the proposed line? About 40 miles from Pilliga to the nearest point on the proposed line, and about 28 miles from Wee Waa to the nearest point on the proposed line.

54. What is the nature of the country between Pilliga and Collarendabri? I presume from Mr. Stuart's reports that it consists of patches of black soil and red soil with some timber, stunted ironbark, belah, brigalow, &c.—very similar to what you get throughout the north-west—extensive plains and patches of timber.

55. Was the extension to Collarendabri in contemplation when the survey was made from Narrabri *via* Wee Waa to Pilliga and on to Walgett? There was a pretty old proposal to make a railway extension to Mungindi, and I think that, later than that, there was a proposal to go to Angledool, which line would pass through Collarendabri; but I can look the matter up for the Committee.

56. The proposals before the Committee—a line from Narrabri to Walgett, and a line from Woolabra to Collarendabri—would give a distance of only from 40 to 45 miles between the two lines? Yes.

57. Was it taken into consideration that both lines would, to some extent, be serving the same country—was that taken into consideration at the time the line to Walgett from Narrabri was projected, or the line from Woolabra to Collarendabri? I cannot tell what motives the Minister may have had in bringing forward the two proposals—from Narrabri to Pilliga, and from Woolabra to Collarendabri.

58. But you perceive, do you not, that they are very close together? Yes; they are very close together—within, as I have said, about 40 miles of each other.

59. They pass through pastoral country? Yes.

60. You have simply carried out your instructions to ascertain the cost of construction? Yes.

61. You gave no consideration to the fact that those lines were close together? I was not asked to advise as to whether one or the other, or both, should be carried out.

62. You were instructed to find the best starting point for the line between Narrabri and Moree? Yes.

63. *Mr. Wright.*] Have you ever read Mr. Jones' report on this proposal? I have it here.

64. If you will look at page 18 of that report (No. 19 Narrabri West *via* Collarendabri to Angledool) you will see that in paragraph 5 Mr. Jones says:—

It needs only a glance at the map to show that this scheme is the least useful of all those put forward to give access to the North-west. Coonamble and Coonabarabran would be entirely shut out; Walgett would make very little use of such a line, as it is scarcely likely traffic would be hauled north by road to go south by rail.

What have you to say to that statement of Mr. Jones; it really embraces a line to Angledool, and we are told by the Railway Commissioners that the course of this line now before us may be eventually extended north-west to Angledool? Without going into motives for making this line, I should say, at any rate, that a line to Collarendabri could never be expected to suit Coonabarabran and Coonamble. I do not know why Mr. Jones brings Coonamble and Coonabarabran in.

65. You miss the point; Mr. Jones says:—

It needs only a glance at the map to show that this scheme is the least useful of all those put forward to give access to the north-west.

? Yes; but then he gives reasons for that. He says:—

Coonamble and Coonabarabran would be entirely shut out.

But this line is not intended to deal with those places.

66. Circumstances have altered somewhat since then; but he is speaking of the north-west? This line would not compete at all with a line to Coonamble from Warren or Dubbo.

H. Deane. 67. I am speaking of north-west of the Barwon, which this line is specially supposed to affect? I think that he ought to have left that out, because there is no argument in the fact that Coonamble and Coonabarabran are entirely shut out. They can be dealt with afterwards.
9 Mar., 1898.

68. Kindly read the next paragraph:—

No doubt a few stations west of Goodooga, not within the trafficable sphere of a line to Walgett, would use the Angledool railway; but their wool is already obtained either at Byrock or Bourke, and therefore little extra revenue would be received by the State.

There he is dealing with the particular class of country this railway is to tap? Yes.

69. Mr. Hassall.] Mr. Jones, on page 17 of his report, in dealing with a line from Narrabri West *viâ* the north side of the Namoi to near Walgett, says:—

This line passes over ground less liable to inundation than on the south side of river. It also serves a larger area of good grazing country, and would be within easy access from Pilliga and Wee Waa, the latter more especially. It also passes through the centre of extensive settlement on Pian Creek and Jews' Lagoon.

And in his first paragraph he says:—

Crossing the river at Gurlough Point, 16 miles from Narrabri, it is proposed to make use of the firm sandy ridges which exist much of the way to the Barwon. The terminus suggested is at Eurie Eurie, 10 miles north of Walgett.

Do you know the distance between Collarendabri and Walgett? About 40 miles.

70. Do you think it would be advisable to take the railway to Walgett, and not to Collarendabri, in view of the traffic that you would get in that part of the country? Very likely not.

71. Do you not think that it might be advisable to give full consideration to the suggestion thrown out in Mr. Jones' report on the line from Narrabri West, *viâ* the north side of the Namoi, to near Walgett, and to make the terminus at Eurie Eurie, within 10 miles of Walgett in one direction, and within 30 miles of Collarendabri in another direction, traversing rich country all the way? I have not sufficiently considered the matter to express an opinion. Before I could give an opinion as to the desirability of making a railway on the north side of the Namoi to Walgett I should like to have a report by one of my own officers as to the class of country.

72. You can express no opinion on the class of country there? No; and I do not know that any of my officers have been over that country with a view of reporting on a line on the north side of the river. I think that some time ago the statement that the north side of the Namoi was less liable to floods than the south side was disputed. It is a matter that I think should be settled. It seems to crop up every now and then, and it is desirable to get a report upon it. When the Pilliga inquiry was on, there was a great divergence of opinion, and I think it would be desirable to get the country examined. If the Committee would recommend the matter to the Minister, I should be very glad to send some one there. It would not take very long to examine it. Seeing the trend of the Committee's inquiries, I think that very valuable information could be obtained.

FRIDAY, 11 MARCH, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

HENRY CLARKE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Woolabra to Collarendabri.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and examined:—

J. Harper. 73. Mr. Trickett.] The Railway Commissioners have made a report on this line, in which they point out that the probable annual cost would be £13,094, and the annual traffic £7,109, leaving a loss of £5,904; have you a statement you can submit to the Committee in support of these figures? Yes.
11 Mar., 1898.

Sydney, 4 August, 1897.

PROPOSED RAILWAY, WOOLABRA TO COLLARENDABRI.

Distance, 80 miles 56 chains; estimated cost, £207,798; interest at 3 per cent., £6,236.

As directed by the Commissioners, I have made careful inquiry into the prospects of traffic on this line. As they are aware, special attention was drawn to this route by the Public Works Committee which dealt with the line between Narrabri and Moree in 1894. That body, though bearing in view the strong representations made by the occupiers of the grazing district to the west, expressed themselves as unable to agree to the proposed deviation from the direct route between Narrabri and Moree through Mille, but suggested that steps should be taken for exploration, &c., of the country from this line westwards towards Collarendabri. The scheme now under consideration is no doubt the result of the suggestion.

As the Commissioners know, the district traversed by the line is one of the best stock areas in New South Wales, and produces a very large quantity of wool and fat stock. In addition to this, there is no doubt, were the line extended towards Collarendabri, traffic in the neighbourhood of the north-west of Angledool and as far north as the Australian Pastoral Company's properties in Southern Queensland would find its way to it. It should, however, at the same time be borne in mind that projected lines have been submitted for consideration which would more or less affect the traffic claimed by this district. For instance, the proposed line between Narrabri and Pilliga would most certainly receive a portion of the traffic claimed by the Collarendabri people, and it is equally certain that it would secure the Walgett traffic which was claimed, at least for passenger purposes, by the supporters of the line under consideration. Again, either a navigable river or railway between Brewarrina and Byrock would to a certain extent tap more of the south-western district, which the Collarendabri people claim to be within their trafficable area.

In the estimate furnished by the local body I also found that traffic which was included would most undoubtedly continue to make Moree its terminus as at present.

Another matter of very vital importance in connection with the line is that the very large traffic from and to the pastoral companies in Queensland, which in my estimate is credited to the extension, would, in the event of a projected railway to St. George being built by the Queensland Government, be diverted to that point, and even were this not done, would be at any time liable to diversion from the proposed line by an arbitrary increase in the existing Border tax.

I refer to these matters in general terms in order that it may be seen that the estimates prepared by those interested in the railway require, in view of our knowledge of the circumstances referred to, to be weighed and considered very carefully.

In connection with the location of the line, it may be stated that it traverses easy country, comparatively free of floods until within a distance of 10 miles 72 chains of Collarendabri. From this point to the township a number of warrambools or watercourses which are liable to inundation have to be traversed, and the effect of this upon the total cost of the line may be gathered when it is stated that whilst the estimated cost for the first 69 miles 64 chains is £2,300 per mile, the 10 miles 72 chains referred to is estimated to cost £4,352 per mile; and, should it be decided to build the line, it certainly becomes a very serious question as to whether it would not be desirable to terminate on high ground instead of traversing the flooded country referred to.

As far as the prospects of the line are concerned, there is no doubt that it is deserving of the utmost consideration in connection with any steps which may be taken towards either a westerly extension or improvement to the river navigation.

It has occasionally happened that river communication has been opened to Collarendabri by the Darling and Barwon, and indeed to a point as far north as Mungindi. Under existing circumstances this is of rare occurrence, but, of course, should it be decided to improve the navigation of these rivers, such a course would have a most important bearing on the transit of the heavy traffic to and from the area under consideration.

For the purpose of my investigation, which has been a thorough one, the season 1894-1895, as being admitted the best in the district, has been taken, and a liberal margin allowed for the development in the live stock traffic, which would undoubtedly arise were small holders enabled to avail themselves of rail transit for the purpose of moving small consignments of stock.

The rates taken are an extension of the rates prevailing on the Narrabri to Moree line—the circumstances of the two lines being similar.

There would be three intermediate points from which traffic would be delivered on the extension.

It is also necessary to draw attention to the fact that the estimate includes the wool and live stock of the A. P. Co. of Queensland, which would be diverted from Moree. The chief gain in this would be the additional freight from Woolabra to Narrabri, as the freight from Moree to Narrabri and Collarendabri to Woolabra is only 2s. 6d. per ton in favour of the latter.

In justice to the line in another direction it may be stated that the great bulk of the other traffic from the district it would serve at present is carried by road to Narrabri. Were it put on the proposed extension, the existing line would carry it between Woolabra and Narrabri, in addition to its carriage on the Collarendabri line.

Again, on the other hand, were the line constructed to Pilliga, a great deal of this traffic would fall into that extension, assuming it were decided not to construct the Collarendabri one.

My estimate is:—

Wool, 4,554 tons	£2,224	
Goods, 1,686 ,,	1,537	
Stock, 2,000 trucks	1,657	
		5,418
Passengers, 1,500, at 8s.		600
Sundries		200
Mails		972
		<u>£7,190</u>

Detailed Statement of Estimate.

	Miles.	Tons.	£	s.	d.	Total.
Wool.....	{ 11	777 at 5/-	194	5	0	2,224
	{ 43	104 at 8/-	41	12	0	
	{ 64	991 at 9/-	445	19	0	
	{ 81	2,682 at 11/6	1,542	3	0	
Goods, General	{ 11	203 at 11/-	111	13	0	1,047
	{ 43	102 at 18/11	96	9	6	
	{ 64	105½ at 24/2	127	9	7	
	{ 81	484 at 29/5	711	17	8	
Goods, Special (43)	{ 11	80 at 6/2	24	13	4	490
	{ 43	127 at 10/-	63	10	0	
	{ 64	150 at 12/2	91	5	0	
	{ 81	435 at 14/3	309	18	9	
Stock {	400 trucks	3/3	63	6	8	1,657
	300 ,,	12/6	187	10	0	
	500 ,,	18/8	466	13	0	
	800 ,,	23/6	940	0	0	
Passengers, (1,500), at		8/-				5,418
Mails (81), at		£12				600
Sundries						972
						200
						<u>£7,190</u>

74. Is your estimate based upon the whole distance, or upon 63 miles? It is based upon the whole distance.

75. Have you made any estimate that would enable the Committee to see what would be the outlay and the receipts if the line stopped 10 miles short of Collarendabri, as suggested by the Department? Well, it is rather a matter for consideration, but I should say that if you deducted about one-tenth that ought to about represent the estimate.

76. You would get about one-tenth less in the way of revenue? Yes.

77. But the expenditure for the remaining part would be very much greater? Yes.

78. So that it will be better to construct the line only to the 63-mile limit? Yes; it looks so on the surface of the thing.

79. And in the paper which you have read, you start 11 miles from Woolabra? Yes.

80. Meaning that the traffic for that distance would be brought in by waggons and teams? Yes. It is where the Moree road intersects the line.

81. What is the reason of the Department deciding upon Woolabra as the junction point? I gathered from the engineers that the object was to get away from flood-water.

82. More from an engineering point than from a traffic point? Yes; absolutely from an engineering point. As a matter of fact, the suggestion first came from the Public Works Committee in 1894. They suggested that the country should be explored in that direction.

83. So long ago as 1891 it was suggested that there should be a line of railway from Narrabri West, *via* Collarendabri, to Angledool;—did you ever deal with that proposal? No. I think there have only been surveys. That proposal never came on to the Railway Commissioners.

84.

J. Harper. 84. Do you look upon this route from Woolabra to Collarendabri as the best one? I am rather inclined to think, if a route could be got, that it would be better to take the line through Wee Waa, or in the neighbourhood of Wee Waa.

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85. That would be *via* Narrabri? Yes. But it is so purely an engineering question that I should not like to express an opinion upon it.

86. Have you considered the relative merits of the two lines, one from Narrabri *via* Wee Waa to Collarendabri, and the other from Woolabra to Collarendabri? No, only superficially, by reason of my not knowing the possibilities or otherwise of a line going *via* Wee Waa. But I am of opinion that if it went through Wee Waa, although there would probably be a greater length of line, there would be a greater amount of traffic.

87. For what reason? Well, there is a lot of country about Wee Waa, in the neighbourhood of the line, that would not go north to join this line. It would fall in on to a local line, but it would not go north. It would continue to go on to Narrabri. I have referred to that in my report. I will read the paragraph again:—

Again, on the other hand, were the line constructed to Pilliga, a great deal of this traffic would fall into that extension, assuming it were decided not to construct the Collarendabri one.

What I mean is that to the north of the Namoi you find most of the best country, and the people living south of the Pian Creek, and approaching Narrabri and in the neighbourhood of Wee Waa would not come up to that line—they would continue to go to Narrabri. For a similar reason I had to exclude some of the district to the south of this existing line. That traffic obviously would also continue to come into Narrabri.

88. But would not a line *via* Wee Waa to Collarendabri somewhat clash with a line to Walgett? I think it would serve about the best part of that district.

89. Do you think it might avoid the necessity for a line to Walgett? I think it is quite on the cards that it would.

90. Where does all the traffic from the intervening places between Collarendabri and Woolabra go to now? Chiefly into Narrabri.

91. On reference to the map, does it not look as if a line, if started from Narrabri *via* Wee Waa, might go in a direction midway between Walgett and Collarendabri, and then branch off to the two places? I think you get into very bad country there.

92. The engineering difficulties might be an obstacle? Yes. That country has been examined, and it floods out a long way and very frequently.

93. Does it not seem desirable that if a railway were constructed in the direction of Collarendabri it should go on further to Angledool? Some day such an extension might be considered; there is no immediate necessity for it.

94. If the road for 10 miles east of Collarendabri is as bad as described, would it not be very bad for ordinary traffic? It is corduroyed. A lot of money has been spent on the road.

95. If the line were made 10 miles short of Collarendabri, would you get a lot of traffic from that distance? Yes; the traffic would come in there certainly; it all passes along that road to-day.

96. The district to be served by this railway would be a sheep district? Yes.

97. No cattle? Very few cattle; chiefly sheep.

98. You put down an item of £1,537 for goods,—what class of goods? They would represent the various classes of stores going back for consumption on the stations—back traffic.

99. And what does the item of £1,657 represent? Stock.

100. Do you think the railway there would be largely utilised for the carriage of stock? I think so; it is a splendid fattening country. There is a lot of comparatively small settlement there, and small settlers cannot afford, as a rule, to send their small lots of stock in. Droving is just as expensive with a small mob as with a comparatively large one.

101. That part of the country is a great place, is it not, for dealing in stock; stock shift about a lot there; it is a great place for speculation in stock? Yes.

102. The sum of £1,657 is rather a large amount to put down, is it not, for the carriage of stock? No; it represents altogether about 1,800 trucks. For a district like that it is not a large amount.

103. Did I understand from the reports you read that you put down as an earning of this railway something that the main line would benefit? Yes. The position is this:—If, to-day, that line were built, the probabilities are that the Australian Pastoral Company's wool, consisting of about 6,000 bales, which comes in to-day at Moree, would join this line at Collarendabri, and, instead of running over the 60 miles of the Moree line, would be carried over 29 miles of the existing line between Woolabra and Narrabri, in addition to 81 miles on the new line.

104. That is included in your estimate? Yes; it is taken into consideration in the estimate.

105. The estimate of this line shows rather a large amount of probable loss—close on £6,000—what are your ideas as to the earnings in the future; are they likely to be improved or not? Assuming that it would not be much more costly there for construction and maintenance, I should feel inclined to think that, if it were constructed in the neighbourhood of Wee Waa, that loss would be considerably reduced; that is to say, there would be a great deal more traffic.

106. Then I understand that you have a strong preference in favour of the line going by way of Wee Waa? I think it is worth considering, and worth having a very hard try for; and I should say, for choice, on the north bank of the river.

107. The Commissioners say in their report, "It would open up a good class of country, and probably form the basis of a further extension later on in a north-westerly direction";—in what direction does that mean? To Angledool; or taking a more westerly direction, if considered necessary, on to the Narran.

108. In regard to opening up this country, is it not mostly alienated land? I have no idea what extent of Crown lands remain.

109. The Commissioners also say that the line has various merits;—have you any other grounds you can give us in support of its construction? No; not beyond those I have stated. On the 14th April, 1897, a deputation waited upon the Minister for Public Works in reference to this railway, and the report of that deputation contains a great deal of information on the subject.

110. I suppose you could not tell us how it is that this line from Narrabri *via* a point between Narrabri and Wee Waa, and on to Collarendabri, has not been more carefully inquired into, seeing that you have

a great idea of the trading capabilities of that line? That, of course, I do not know. The Commissioners had nothing to do with the selection of the proposed route. The thing was emphasised, as I indicated just now, by the Public Works Committee.

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111. But they did not emphasise any particular route, did they? No; they indicated Collarendabri as a desirable point to reach.

112. This is what they said in the report of the Sectional Committee on the Narrabri to Moree railway:—

We are of opinion that in view of the importance of the western trade it would be well if a full exploration survey should be made of the country towards Collarendabri, apparently the best place to start a survey from being a point between Narrabri and Edgeroi, thus utilising the bridge which will be constructed over the Namoi on the direct route.

? That is what they have practically done, because Edgeroi is only a few miles from Woolabra. I think the objection to going from Edgeroi was that they would not be out of the flood-waters so well as would be the case starting from Woolabra.

113. It is rather a troublesome part of the country as regards flood-waters? Yes.

114. And the more you get to the west apparently the worse it gets? Yes; it floods out on the water-courses.

115. You have no statistics that would enable us to form a comparison between a line *via* Wee Waa and a line from Woolabra? No; but if it be considered desirable at some future time, I might get the information before the inquiry is closed.

116. With regard to the item you have put down for stock, which seems to me rather a heavy one, do you remember when the Byrock to Brewarrina line was before us, you then urged, or somebody from your Department urged, that stock-owners would drive their stock, rather than take them long distances by tram? They would do so rather than pay local rates for them; these are through rates.

117. Therefore that argument does not apply in this case? Exactly; and of course it is better fattening country.

118. Does the line go mostly through private property? No; it is chiefly on the stock route, or through Crown land, I think.

119. Therefore, the amount of compensation would not be very great? No.

120. Regarding it as a line for a distance of 69 miles, I apprehend the Department looks at it as one of those light lines of railway that will not pay at the present time, but has a future before it? Yes.

121. In the way of increased settlement, which would bring traffic? Yes.

122. But the Commissioners are clearly of opinion that the line should stop 10 miles short of Collarendabri? Yes; that is the opinion they have expressed, on account of the cost of construction.

123. What would be the nature of the increased settlement, seeing that it is mostly a grazing country? It is grazed to a great extent in large holdings now; but settlers are taking up smaller holdings, and this will mean a larger quantity of stock.

124. Looking at the various railway schemes that are now under the consideration of the Committee, including the line *via* Pilliga to Walgett, and this line to Collarendabri, does it not strike you that it would be desirable, if possible, to get a line of railway which would serve the interests of all, without making a railway to each place? There are so many districts that I do not see how you could have a line that would provide for them all. You have the Walgett or Pilliga line under consideration, also the line from Byrock to Brewarrina, and the line from Warren to Coonamble. I certainly would not suggest, for a moment, that Coonamble could be served in this way.

125. But Collarendabri and Walgett might be served by one line? Yes.

126. Is Collarendabri a large stock centre? Yes, a great deal of stock passes at Collarendabri.

127. I suppose it is as large a centre as Walgett? I should think larger.

128. Do you think that settlers could profitably drive their stock over the 10 miles of country rather than that the country should be put to the great expense of a railway? Yes; the same thing would apply to wool, having come the distance it has come.

129. What class of road is there over this bad country to the east of Collarendabri? The roads are very bad. They have been corduroyed to a great extent. A lot of work has been done on them. They have been made passable in times of flood for stock and teams, but it would be very difficult to build a railway over that country. Causeways are used over which the water is allowed to flow.

130. Large quantities of stock have been lost in that country in time of flood, I believe? Yes; it is rather bad country for sheep when there is a heavy flood.

131. *Mr. Clarke.*] You are, of course, aware of the proposal to construct a railway from Narrabri to Pilliga? Yes.

132. In your former evidence, I think, you did not approve of that line being made? No.

133. In your opinion, would a line from Moree to Collarendabri answer the purpose as well as the present proposed line? I think it would be bringing them a long way round, and apart from that, from what I have heard of the character of the country, you would most undoubtedly get into bad country there for railway construction.

134. Why? The water-courses are bad, so I have heard from pretty well all the people who have spoken about that district.

135. *Mr. Hassall.*] You do not know the country yourself? No.

136. *Mr. Clarke.*] It is mentioned in their report that the Commissioners do not altogether approve of this line being made; they merely state that it is worthy of consideration? Yes.

137. Do you think that, in the interests of the people of the district and of the country at large, it would be advisable to carry out this railway proposal? As has been suggested by the Commissioners and by myself, I think it is worthy of exhaustive inquiry, which I know it will receive at the hands of the Committee.

138. I notice by the report that a loss of nearly £6,000 is estimated in the first instance? Yes.

139. Do you think that, owing to the increase of traffic, that loss would be reduced, and ultimately the line would be a paying line? I should look for it to be reduced, certainly, in a country like that. I may incidentally mention that in the case of the Moree line the results have now been obtained, and they are very good.

140. Would not this line, if carried out, take away a portion of the traffic from the Moree line? Yes; a certain portion would be taken. It would not be very material. Of course the earnings would be more in proportion—that is to say, they would have to pay a longer mileage from Moree, and that would, of course, largely influence the direction.

- J. Harper. 141. *Mr. Wright.*] You are aware that the Committee have before them, at the present time, a proposal for a line to connect the Barwon with the western railway at Byrock? Yes.
- 11 Mar., 1898. 142. Also a line from Warren to Coonamble with the probable ultimate extension to Walgett, and there is a line from Narrabri to Pilliga, whose objective point, I suppose, is also Walgett. Thus there are four different lines proposed to connect the upper waters of the Barwon with Sydney. Do you think there is anything, or likely to be anything for a very long time, to justify us in tapping the Barwon in three or four different places? No, certainly not. One of the reasons why I think a line somewhere in the neighbourhood of Collarendabri is worthy of consideration is, that they have not the same facilities of water-carriage that exist at other points.
143. Water-carriage is not of much use above Walgett? No.
144. You spoke just now about the enormous traffic secured by the Moree railway extension; is not that traffic caused by the fact that at that point is concentrated all the traffic that formerly came to Narrabri, and a great deal of that which formerly came to Tamworth, Manilla, and other places? Yes, some of that traffic has been diverted to Moree.
145. And Moree has become, for the time-being, the depôt for the northern, and practically a great deal of the north-western, portion of the Colony? Yes; but a great deal of the north-western traffic comes to Narrabri from Collarendabri.
146. Do you think the products of that part of the country are such as can stand a reasonable amount of road carriage—namely, wool and stock? Yes; although I suppose the growers would not say so. Such products would certainly stand road-carriage better than wheat.
147. They would stand high carriage better than any other product we have got? Yes, probably.
148. Do you see any prospect in the near future, or in a quarter of a century, of that country out at Collarendabri, and as far as Angledool, being occupied in small blocks? It is becoming occupied now.
149. Is it not all in the western division? Yes.
150. And, therefore, cannot be occupied for seventeen years? But there are a number of small settlers in that neighbourhood already.
151. In the western division the leases have about seventeen years to run, and the only form of alienation is a homestead lease of 10,000 acres? Those are the class of men who are there.
152. Is it not a fact that all the 10,000-acre blocks in that part of the country worth anything are already taken up? That I could not say.
153. If that is the case, population could not increase there very largely? No.
154. You have been to Collarendabri? Yes.
155. Have you been to Angledool? No.
156. Have you been on the Narran? No; I know the Narran only by reputation.
157. Therefore you cannot say whether it is a fact that all the available country there is practically taken up by homestead lessees? No; I could not say that.
158. Did you go through the country from Narrabri across by Wee Waa? Yes; on both sides of the river.
159. Do you not think that a railway from Narrabri and on towards Collarendabri would serve the district better than a railway from Woolabra to Collarendabri, or a railway from Narrabri to Pilliga? Yes; that is really what I have indicated. I indicated that it was worthy of examination.
160. Has the country been explored? Yes; an exploration has been made extending to the neighbourhood of Mercadool.
161. What is the nature of the report? I do not know.
162. At any rate, I take it from your evidence that you think one line of railway through that country would serve it as well as a double line? Yes.
163. At a considerably less cost to the country, a railway crossing by Wee Waa, and going within 10 or 11 miles of Collarendabri, and within 20 or 30 miles of Walgett, would practically serve both? Yes.
164. And would be all they have a right to ask? I think so.
165. If that line were constructed, and the necessity arose, it could be extended on to Angledool later on? Yes.
166. Just as well from that point as from Collarendabri, and so embrace the whole country? Yes; an extension of that kind would space out the country still better than a line from Collarendabri.
167. That extension would divide the country, and give everybody a better means of access to market? Yes.
168. You do not regard it as of very great importance that the railway should run into the town of either Walgett or Collarendabri? No.
169. So long as it runs within a fair and reasonable distance? Yes; we have too many railways already running into towns.
170. The revenue derived from these little country towns does not much augment your general railway revenue? No.
171. You look to the great products of the country to do that, and not to the small quantities of wine, spirits, and beer which you may carry to country towns? Yes.
172. Have you been over this country yourself? Yes; I went from Woolabra across to Collarendabri, practically on the surveyed route.
173. Have you been over the intervening country between the two suggested lines? No; I came back through Boolcarrol. I did not go over it in such a way as to form a conclusion myself as to its flooded character.
174. You saw nothing of flooded country north of the Woolabra to Collarendabri line, did you? Not on the route from Woolabra to Collarendabri.
175. Did you see anything of flooded country between Moree and Collarendabri? I did not travel between Moree and Collarendabri.
176. You base your opinion upon information you received? Yes.
177. In the event of a railway being constructed between Coonamble and Walgett, do you think it would be desirable to make a further extension north? No; I think it would be going a bit too much out of the way.
178. You think that is too far round? I think so.
179. A connection between our present Western Railway system and Coonamble would tap all the good country between that and the river? Yes, all the good country would come in. 180.

180. The legitimate trend of the traffic north of the river and north of Pilliga would be to the main Northern line? Yes. J. Harper.
181. That is the route by which you think that portion of the country should be served in the matter of railway communication? Yes. 11 Mar., 1898.
182. So that the proper connection for Walgett, Collarendabri, and Angledool is with our main Northern line? Yes.
183. *Mr. Hassall.*] In the event of the suggestion being entertained for a line from Narrabri West across Gurleigh Point near Wee Waa, and through that good country on the northern side of the Namoi, do you think it might not be possible to strike a point on the Barwon, even if you had to cross it between Walgett and Collarendabri? It should be; but, as I said before, that is rather an engineering question, upon which I should not care to express an opinion.
184. And in the event of any further extension of that particular line or branch, you would have the advantage of a good road from Collarendabri to the railway terminus and a good road from Walgett? Yes.
185. You know, as a fact, that the country on the western side of the Barwon is high and dry? That is so.
186. And that on the southern bank of the river the country is inundated for some miles? Yes.
187. So that in the event of a line being constructed through that country, probably a strip of country might be found between the two places, not exceptionally wide, but where a decent crossing might be obtained, and you could get on to high land on the other side of the river. If that were carried out it would provide a first-class road from Collarendabri and also on to Walgett? That is so.
188. And give the whole of the residents of the Walgett district and the Collarendabri district reasonable means of communication with Sydney? That is so.
189. Would there be any justification for taking a line of railway either from Narrabri, *via* Wee Waa, to Pilliga, and on to Walgett, or *via* Warrén to Coonamble and on to Walgett, and then another line from Woolabra to Collarendabri, leaving the terminal points only 40 miles apart? No; I do not think so.
190. That is in view of the settlement which has already taken place in that country, and which is likely to take place? I certainly do not think it would be desirable.
191. The country is essentially pastoral country, is it not? Yes.
192. I presume, from your knowledge of it, you recognise that it must be many years before it could be put under any form of occupation satisfactorily? Yes; I should not expect it.
193. Therefore, the object of this Committee, and, I presume, the object of the Railway Commissioners, is to try and serve that country in the cheapest possible manner? That is so.
194. The suggestion that has been made that consideration might be given to an extension from Narrabri, running near Wee Waa, and going down through the country that is now well settled, would be the most feasible plan to adopt in order to give the people the communication they desire? Yes; that is certainly my view.
195. You know the Pian Creek country? Yes.
196. That country is fairly high, is it not, running up through Boolcarrol towards Narrabri? Yes.
197. A survey has been made to Mercadool? Yes.
198. So that, practically, the country to which I have alluded has been under survey by the Railway Construction Department? There has been an exploration.
199. And it would not be difficult to obtain all the information necessary to enable the Committee to form an opinion with regard to it? I do not think so. I fancy that Mr. Stuart who ran the exploration is now in Sydney.
200. You think the extension suggested would be far preferable to the proposal to run out to Woolabra, then turning at right angles and going on to Collarendabri? Yes.
201. There would be no better country traversed going from Woolabra than by the other route? Certainly not. On the other hand there would be very much better country traversed from Woolabra than that on the south bank of the Namoi.
202. Can you compare the country on the north side of the Namoi with that on the south side? No; you cannot compare it. On the one side there is nothing but brigalow for miles, and on the other side there is some of the best country in the Colony.
203. The line running from Narrabri *via* Wee Waa to Pilliga as proposed would practically go through a lot of very bad country, the only traffic that might be expected being traffic from the north of the river? Yes.
204. To secure that traffic, the better plan would be to cross the river higher up, and go through the good country? Yes.
205. Where would you look to for your traffic from that district—coming in at Wee Waa? Nearly every bit of it would come from the north bank of the river.
206. That country is pretty well settled, is it not? Yes.
207. Instead of large holdings carrying cattle, as was the case twenty or thirty years ago, the country is now occupied by selectors with considerable holdings, carrying large quantities of sheep? That is so.
208. And you think you would get a fair amount of traffic from that part of the country if a light line of railway were constructed? Yes.
209. Do you think that the settlement through that part of the country, the settlement on the western side of the Barwon, embracing the country lying from Walgett, say, on the south, to Angledool on the north-west, and embracing the Narran, part of the Bokhara and the Birie, would justify the extension of a light line of railway to some point such as I have indicated on the Barwon River between Walgett and Collarendabri? I should expect it would, from the information, as far as my memory serves me, in connection with the traffic that would fall into it, which I obtained about the Pilliga line *via* Wee Waa.
210. Do you think that in the interests of the country it would be far better to construct a light line of railway through that country than to attempt to carry a line along the southern side of the Namoi in the direction of Walgett? There is no comparison between the two. The country on the northern bank of the river is exceptionally good, and that on the southern bank exceptionally bad.
211. In the event of a line being extended to the Barwon between Collarendabri and Walgett, do you think it would then be necessary to construct a branch from Byrock to Brewarrina? No, I do not.
212. You think that the trend of the traffic would be on to the Barwon River, at a point between Collarendabri and Walgett? Yes. I think a good deal of the best country in the neighbourhood of Brewarrina and on the Narran, and on the other rivers mentioned, would be best served in the way indicated.

- J. Harper. 213. Have you ever been across the country between Collarendabri and the Narran--across what is known as the Sixty-mile track? No; the country was described to me as being very good.
- 11 Mar., 1898. 214. Do you think it might be justifiable, at some future time, to run an extension through the country between the Namoi and Angledool, and towards the Queensland Border? Yes; I think it would split the country up pretty well.
215. If an extension were carried out in that direction, would it not tap an area of first-class grazing country? Yes.
216. And would it not, in your opinion, secure a very large portion of the Queensland traffic? Yes, if Queensland did not prevent it from coming in.
217. Do you know the nearest point on the railway in Queensland from Angledool? Yeulba.
218. *Via* St. George and Surat? Yes.
219. Do you not know that the Narran, the Bokhara, the Birie, and the Culgoa are all watercouses formed by the overflow of the Baloon River? Yes.
220. And that it is an area of country exceptionally well watered and well grassed? That is so.
221. And will carry a very large number of stock? Yes.
222. And a line of railway running in that direction must eventually command a very fair share of traffic? Yes.
223. In fact, do you not think that if a line of railway were extended into that country, (say to Angledool) you would secure the whole of the border traffic, for which Queensland would probably never compete? I would not like to say that. In Queensland they have a scheme for running a railway from Warwick parallel with the border. I do not think they make a connection at St. George. Their railway station nearest to that country is Cunnamulla.
224. From Wyandra? Yes.
225. That would be almost their nearest point? Yes; unless they build a line from somewhere about Warwick due west.
226. Summing up your evidence, you are of opinion that the suggestion to take a line from Narrabri through the country on the northern side of the Namoi River would be far preferable to any two schemes having for their object the same objective point? That is so.
227. *Mr. Humphery.*] With reference to a possible extension, in the direction indicated by Mr. Hassall, to Angledool, how would that affect the traffic at Brewarrina? We did not say absolutely Angledool, but in the direction of the Narran. You would there pick up the best of the Brewarrina country.
228. Are you of opinion that a railway extending from a point between Collarendabri and Walgett in a north-westerly direction between Angledool and the Barwon would well serve the whole of the country north of Bourke and Walgett? Yes.
229. In the event of such a line being constructed, how would it affect the Brewarrina traffic, assuming the construction of the proposed line from Byrock to Brewarrina? It would simply take the bulk of the traffic that comes into Brewarrina to-day. That is what I should expect it to do.
230. Are you, then, of opinion that the line would render unnecessary any other extension in the direction of the Barwon? Yes.
231. From any of the New South Wales systems? Yes.
232. In that case, assuming the extension from Warren to Coonamble to be carried out, you would regard Coonamble as the terminus? Yes.
233. You think it would be quite unnecessary to extend the railway in the direction of Walgett, or any other point on the Barwon? Yes, assuming that the line referred to were carried out.
234. In considering the proposal before the Committee, of a railway from Warren to Coonamble, the Sectional Committee, in your opinion, should leave out of consideration absolutely any extension in the direction of the Barwon? Yes, I think so; that is to say, in considering the proposal we are now discussing.
235. I am speaking now of the proposal with which you are familiar--to construct a line from Warren to Coonamble? I consider that an extension is necessary to Coonamble, but not beyond.
236. What is the distance from Coonamble to the nearest point on the Barwon? From Coonamble to Walgett the distance by road is 80 miles.
237. Can you prepare a map showing the portion of the district that would be served by the line that has just been indicated north of the Barwon, and south of Angledool? Yes.
238. What would be the difference in distance by such a line, and the line from Brewarrina to Sydney *via* Byrock? I cannot say, pending survey.

MONDAY, 14 MARCH, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Woolabra to Collarendabri.

Hugh McLachlan, Secretary to the Railway Commissioners, sworn, and examined:—

- H. McLachlan. 239. *Mr. Wright.*] In their report on this line the Railway Commissioners adopt rather a peculiar course. They simply say the line has merits, and is worthy of consideration; they do not follow their customary method of either recommending or rejecting the line? No. Personally, they are rather inclined to favour the line, but they do not feel very strongly either way.
- 14 Mar., 1898. 240. They furnish this negative kind of report, and leave the Committee to investigate the whole thing? To some extent the report is rather favourable. They do not directly recommend the line.
241. As a rule they either recommend or disapprove? Yes. 242.

242. In this case they have not done so? No.
243. This is supposed to be a single line? Yes.
244. Before the Committee there is also a scheme to connect Narrabri with Pilliga *via* Wee Waa;—I suppose the objective point of that line will be Walgett? Yes.
245. Seeing that the distance between Walgett and Narrabri is not very great, have you any idea how it would suit to construct a line from Narrabri, crossing the Namoi at Wee Waa, and striking the Barwon at a point equi-distant between Collarendabri and Walgett, that point being the terminus? The Commissioners make it a rule not to look into alternative proposals unless directly referred to them; but this matter has not escaped them, and they think it is certainly worthy of inquiry as to whether it would not be wise, perhaps, to start directly from Narrabri, touch Wee Waa, and then go towards Collarendabri. That is the point they looked at. There is this to recommend it: You would have a slightly greater length of line to make, and it would, perhaps, pass through more difficult country—that would, of course, depend upon the engineer's survey—but there would be this advantage, that Collarendabri would be nearer to its market. Although you would make a longer length of line, you would carry the goods a shorter through distance by rail to their destination.
246. But in the Commissioners' report, and also in the report of the Engineer-in-Chief, the Committee are advised that the line should not go within 10 miles of Collarendabri? Yes.
247. What I suggest is that a line leaving Narrabri, crossing the river at Wee Waa, and running to a point, halfway between Collarendabri and Walgett, would do away with the necessity of a double line there, and would serve the country equally well. I will put it in this way: Suppose a proposal were made to construct these two lines, and there was also a proposal to construct the line I suggest between the two, which would the Commissioners approve of? I should think they would go for the intermediate line; that is my own opinion.
248. If you look at the map you will see that that line from Wee Waa to the Barwon could be taken in a direct line to Angledool with a possible north-western extension later on? Yes.
249. You cannot say definitely what are the views of the Commissioners on the matter? No, because there are other circumstances which may effect the question, such as the cost of construction, and the nature of the country. There is, I should think, some flooded country on the route you propose from Narrabri. A great deal, of course, would depend upon the survey.
250. Do you think there is anything in the trade of that north-western portion of the Colony to justify the construction of a line from Woolabra to Collarendabri, also a line from Narrabri, *via* Pilliga, to Walgett, and one from Byrock to Brewarrina? No.
251. There is no justification for tapping the Barwon at those three points? No. As a matter of fact, the only line the Commissioners favour, or inferentially favour, is the one to Collarendabri, tapping the upper portion of the Barwon.
252. The Committee have asked the Engineer-in-Chief to have an examination made of the intervening country between Wee Waa and the Barwon, halfway between Collarendabri and Walgett? Personally, the Commissioners think such a line is well worthy of consideration, but they would not like to express a definite opinion until they had before them all the facts as to the cost of construction, and the nature of the country.
253. Do you think there is anything in the country beyond Collarendabri to the north-west that would justify an extension to Angledool eventually? There might be eventually, but the Commissioners would not recommend such an extension at present. They have no idea at present of going beyond Collarendabri.
254. They ask us to report on this line, less 10 miles? The proposal is to make a line into Collarendabri, but this Committee is asked to consider whether the line should not stop 10 miles short of Collarendabri by reason of the great cost of construction. I believe the cost for the last 10 miles would be twice as great per mile as for the remainder, and the maintenance would be also much heavier.
255. There is one peculiar thing about the report. It speaks about a possible extension of this line north-west. Therefore, there would be no saving by not going right through to Collarendabri? No; but at the present time the Commissioners have no idea of going beyond Collarendabri.
256. They would be guided in their opinion later on by the development of traffic? Yes; and also probably to some extent by the question of Queensland competition. If Queensland made a railway to St. George, and extended it from that place, that would no doubt affect the question.
257. Do you know the distance from Angledool to St. George? No, I do not know the exact distance.
258. As the Colonies are situated now, is there any strong possibility of our being able to divert any Queensland trade to our north-western railways? We do get some of the Border business. Perhaps we should not get a great deal more.
259. *Mr. Hoskins.*] You get the Australian Pastoral Company's wool? Yes; that comes into Moree.
260. *Mr. Wright.*] You are under the impression that by approaching the Queensland Border you will get a certain amount of additional trade? Yes. We should be in a better position to compete for it.
261. Both ways? Of course special rates would have to be quoted.
262. Do you think the special rates quoted for goods going into Queensland, and wool and produce coming back, are such as to pay our railways? Yes; we do not quote a rate that does not return some profit.
263. No matter how keen the competition, the Commissioners always adopt that rule—that is, that there is a margin of profit? Yes; we would not quote a rate unless there was an advantage in it.
264. There is an estimated annual loss on the proposed railway of nearly £6,000? Yes; that includes interest. The line would pay a little more than working expenses.
265. Is there any reason to believe that the construction of this line would bring a larger volume of trade to the existing railway than exists at present? Personally, I do not think there would be a great increase of traffic.
266. You would get traffic that now goes over the railways? To a large extent, yes.
267. What effect would the construction of a railway to Walgett on the one hand, and to Brewarrina on the other, have on the traffic of this part of the country? A railway to Walgett would affect the traffic which would be reached at Collarendabri if the two lines were in existence.
268. Would the construction of a railway from Byrock to Brewarrina have any effect on that country? I should not think a great deal; but I am not well enough acquainted with the locality to express a definite opinion.

- H. McLachlan.
14 Mar., 1898.
269. You see by the map that Angledool almost stands at the apex of a triangle, having Collarendabri on the one side and Brewarrina on the other; and I suppose that nothing west of Angledool would reach the Collarendabri line, provided the Brewarrina line were constructed? I should think not; but I have not been over the country and should not like to give a definite opinion.
270. What about the country north and north-west of the proposed line;—I suppose that traffic all comes into Moree at the present time? North of Collarendabri. The traffic coming from Collarendabri at present comes principally to Narrabri.
271. But north and north-east of Collarendabri? If the Collarendabri line were made it would take some of the traffic which at present comes to Moree.
272. Do you think it would take the Mungindi traffic? No, I hardly think it would.
273. It appears to me that the area of country around Collarendabri to be served by this line is comparatively limited? Yes.
274. It is served on the one side by the Moree extension, and it may possibly be served on the other side by an extension to Brewarrina or to Walgett? Yes. Of course, Collarendabri would mean a longer railway carriage than Moree, and that would affect the question a good deal in regard to earnings.
275. *Mr. Roberts.*] According to the report of the Railway Commissioners, there will be an annual loss on this line, in round figures, of £6,000? Yes, including interest.
276. That is without land and compensation? Yes.
277. The Commissioners in their report say, "The proposed line has merit"—what is the merit? The merit is this: The line will open up locally a big district, and will develop a large area of country. The people also are at the present time a long way from a railway, and, besides, the line would pay more than working expenses. The Commissioners are always prepared to consider any railway which will more than cover working expenses, although it might not at first cover interest. At the same time, they do not definitely recommend the line. They do not see that it is going to pay—that is, pay everything.
278. It will just about pay working expenses, will it not? Yes.
279. Are the Commissioners looking forward to getting a lot of the Queensland traffic, and do they expect that possibly when the line is extended in a north-westerly direction the traffic will be in a marked degree improved? They do not at present recommend any extension beyond Collarendabri. They would rather have the line considered on its merits at the present time.
280. Do you know whether the Commissioners desire that the line should go as far as Collarendabri, having in view the flooded nature of the country? No; their opinion is that it would be better to stop 10 miles short of Collarendabri.
281. Are the figures in the Commissioners' report based on the line stopping 10 miles from Collarendabri? No; the figures are based on the full distance.
282. And, of course, on the increased cost of going through the flooded country? Yes; the Engineer's estimate of £200,000 covers the whole thing.
283. *Mr. Lee.*] The Commissioners say that the line should stop 10 miles short of Collarendabri, and they also express the opinion that it would form the basis of a further extension later on in a north-westerly direction;—the Committee would like to know if the Commissioners are of opinion that it would form the basis for a north-westerly extension later on, why it should not be taken to Collarendabri at once? The Commissioners are not prepared at the present time to say that they would recommend its extension further to the north-west. The cost of the last 10 miles would be about £40,000, and that in interest alone would mean £1,200, and the extension for the 10 miles would not affect the traffic.
284. But if the line has merit, in so far as it could be made the basis of an extension to the north-west later on, that extension would have to be in the direction of Collarendabri, would it not? Still you could determine to extend it later on. It would not cost you any more to do so at a later date than it would now.
285. But if stopping 10 miles short of Collarendabri at the present time would enable the line to get the traffic of the country west, where would be the policy of extending it further? I do not remember the exact terms of the Commissioners' report, but at the present time they do not recommend the extension of the line to the north-west.
286. Does not the old trouble of water competition enter into this question? No; because at Collarendabri the river is navigable at very uncertain and very remote times.
287. The chief item of railway freight in that country would be wool? Wool and stock and general goods.
288. As a matter of fact, does not your railway system get the whole of that wool at the present time at some point or other? To a large extent, yes.
289. Are you of opinion that an extension of railway in that direction would be the means of increasing settlement? I should not like to be too sanguine in saying that it would.
290. If it were extended in that direction the railway would get the freight on the wool which now passes over the roads to the nearest railway station? Yes, to a large extent.
291. But beyond that the Commissioners do not urge its construction? No.
292. Or, in other words, is it any part of the policy in the Railway Commissioners' office by which they think that portion of the country should be properly subdivided? No; that has not come within their policy.
293. There is no special trade to cater for? Nothing more than the pastoral trade.
294. There are no special reasons for having the railway extended in order to fight the Border trade? I think not.
295. It stands purely on its merits as a local line? Yes.
296. *Chairman.*] The distance from Walgett, *via* Pilliga, to Sydney is 462 miles? Yes.
297. And the distance from Walgett to Sydney *via* Warren and Coonamble is 486 miles? Yes; the Narrabri route has a slight advantage so far as distance is concerned, but in such a long length of line the difference is not great.
298. What views do the Commissioners hold with regard to the Walgett traffic;—is that immaterial in their opinion? They have not looked upon it as an element for grave consideration as to whether the traffic should be diverted either one way or the other. At the present time they do not recommend the construction of a line either way. We get the traffic at present by Narrabri.
299. The distance from Walgett to Newcastle *via* Pilliga is approximately 362 miles? Yes.
300. Therefore, it would be 362 miles to the port of Newcastle, as against 486 miles to Sydney? Yes.
301. That, you think, is immaterial to the Commissioners? Yes, I think so. I might mention as a matter

matter of interest to the Committee, that I got out a few figures showing the earnings on the Narrabri to Moree line. The line is turning out very satisfactorily, and for the first eight months has shown a profit over working expenses and interest, thereby justifying the Commissioners' report.

302 *Mr Hoskins*] It is paying about 8 per cent, is it not? Yes, it is paying 7 or 8 per cent at present.

H. McLachlan
14 Mar., 1898.

Henry Chamberlaine Russell, C M G, Government Astronomer, sworn, and examined —

303 *Mr Hassall*] Have you a statement which you can furnish the Committee, giving particulars of the rainfall in the district affected by the proposed railway? Yes, I have had prepared for the information of the Committee the following tabulated return —

H C Russell,
C M G.
14 Mar., 1898.

Average Rainfalls	Stations	No of Years	Average Rainfalls	Stations	No of Years
16 86	Bourke	25	19 42	Euroka	15
16 70	Warraweena	20	20 84	Gamblealley	13
17 62	Mount Oxley	12	22 26	Walma	11
19 10	Weilmoringle	10	19 90	Goangra	20
17 83	Beemery	14	19 53	Gundablue	12
17 13	Talawanta	15	20 67	Mogil Mogil	14
18 49	Biewanna	23	20 98	Collarendabri	12
17 59	Bundabulla	6	22 46	Oreel	11
19 76	Milroy	8	24 02	Meicadool	11
18 42	Quantambone	18	24 92	Mungindi	10
17 39	Muckerawa	6	23 97	Yarawa	13
16 23	Willawillingbah	5	23 85	Goonal	16
16 37	Cuttabunda	5	25 40	Derra	10
22 98	Bunghill Tank	9	21 95	Boolcarrol	18
22 37	Wilkie	10	21 71	Pilliga	14
18 52	Boorooma	15	26 98	Pendennis	6
17 70	Gilgoon	19	26 04	Wee Waa	12
20 92	Angledool	7	28 61	Milie	11
18 08	Eulan	6	26 84	Edgeroi	8
19 60	Dungalear	16	27 39	Narrabri	25
23 96	Dunumbial	6	25 13	Moree	17
20 08	Walgett	18	28 13	Avondale	7
21 70	Yowendah	15	27 84	Welbon	8

Those figures cover a strip of country extending in a straight line from Narrabri to Bourke, then going along the rivers in a north-easterly direction to the Queensland Border, and along to Mungindi, and thence to Moree, a few stations being taken outside of these lines to show what the average rainfall is there.

304 The return seems to show that the country around Collarendabri, which place has a rainfall of 20 98 in, including Mogil Mogil with 20 67 in, Mungindi 24 92, Welbon 27 84, Moree 25 13, Derra 25 40—all these places have a rainfall sufficient for the cultivation of wheat if the soil were suitable? Yes, the rainfall would be ample if the soil were suitable. That is the case from Narrabri to Mungindi, and for a distance of 70 or 80 miles to the west—you might say all the way across. Though the rainfall is sufficient in quantity, its distribution is not favourable for agriculture. Much the greater part falls in the first three months of the year, and, speaking generally, the rainfall is light in the latter part of the year.

305 Which fact is not favourable to the growth of cereals? No, at any rate, wheat.

306 Though some localities show a less rainfall annually, they have the advantage of the rainfall at such a period as to be beneficial to the crops—a less rainfall under those circumstances being more beneficial for agriculture than a large rainfall not so distributed? Yes.

307 Can you say whether the rainfall along the Namoi—for instance, Pilliga, 21 71 inches, and Wee Waa, 26 04 inches—and down towards Walgett, is of such a character as to be suitable for agriculture, or whether the great bulk of that rainfall occurs in the first three months of the year? Every mile you go towards the mountains from a line extending from Narrabri to Mungindi the rainfall improves in the latter half of the year.

308 And the more beneficial the rainfall would be for agriculture, falling as it does in a more suitable period of the year? Yes.

309 On the other hand, the further you go west, the less suitable is the rainfall for purposes of agriculture? Yes.

William Henry Hall, Sub-editor of Statistical Year-books, Government Statistician's Office, sworn, and examined —

310 *Mr. Roberts*] Have you prepared a statement for the Committee in connection with the railway proposal now under consideration? Yes, I have prepared a statement showing the population of districts affected by the proposed railway from Woolabra to Collarendabri.

W. H. Hall
14 Mar., 1898.

311 What radius of country is included in your return? I have taken a line from Narrabri to Moree on the east, and gone north to Mungindi, thence past Angledool to Culgoa, and then across to Walgett, and through Pilliga and Wee Waa back to Narrabri in accordance with a communication sent to the Department. The statement is as follows —

POPULATION of Districts affected by proposed Railway from Woolabra to Collarendabri.

District	Estimated Population	District	Estimated Population
Narrabri (Mun)	2,450	Angledool	260
Narrabri West (Mun)	750	Goodooga	450
Kerramingly	560	Comborah	260
Moree (Mun)	1,700	Walgett	1,860
Moree	500	Pilliga	960
Mungindi	500	Wee Waa	800
Buuren	450		
Collarendabri	700	Total	12,400
Mogil Mogil	200		

TUESDAY,

TUESDAY, 15 MARCH, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Woolabra to Collarendabri.

Charles Edward Rennie, Chief Draftsman, Department of Lands, sworn, and examined:—

- C. E. Rennie. 312. *Mr. Clarke.*] Do you produce a map in connection with the proposed railway from Woolabra to Collarendabri? Yes; the map shows the country within 20 miles of the proposed line on each side, converging to a point on the Moree and Sydney line at Woolabra so as to allow of the influence of the Moree line. The map shows by blue tint the alienated land; the blue hatching shows land held under settlement and homestead leases; the brown tint shows the Crown land; and the green tint the reserves. These areas are as follow:—The alienated lands amount to 972,780 acres; the settlement and homestead leases take up about 431,670 acres. Of this area, 180,400 acres are homestead leases in the Western Division, the Barwon River forming the limit of the Western Division at a point indicated. The reserves amount to 370,340 acres, and the Crown lands to 421,610 acres. Of the Crown lands, excluding reserves, the leasehold areas comprise 195,800 acres, the leases of which will expire between the present year and 1900, and 143,200 acres, the leases of which will expire in 1918. The latter area is in the Western Division—west of the Barwon River. The remaining area of Crown lands (82,610 acres) is held under occupation license.
313. How much alienated land does the proposed railway pass through? It will pass through alienated land for about two-fifths of the distance. The homestead leases and settlement leases have practically gone out of the hands of the Crown, the tenure being twenty-eight years.
314. They must be regarded as private lands for the next twenty-eight years? Yes, practically. Roughly speaking, the proposed line will go for about 25 miles through alienated land, and probably about 38 miles through reserves. For about 15 miles the line would go through Crown lands not reserved, and for about 10 miles it would go through settlement leases.
315. Do you know anything of the class of the country? No; except that I believe a large portion of it is pastoral country. I may say that on the north-west corner of the area shown on the plan, there is a block comprising about 33,000 acres which has been set apart for settlement lease. There is another block in the parish of Single of about 9,000 acres; another in the parish of Long Point, about 13,000 acres in extent, also a small block of about 3,700 acres in the parish of Moomin, and a block of about 2,300 acres is the parish of Minnaminane. The two latter are reserves, and the others are occupation licenses. They are all being got ready for settlement lease.
316. *Mr. Wright.*] Are the Committee to understand that the whole of the unalienated Crown lands within the area shown on the map are now being got ready for settlement lease? Not the whole of them, but the areas I have mentioned, comprising, roughly speaking, about 61,000 acres.
317. I suppose it is the intention of the Crown to survey all that land for settlement? Yes, when the leases fall in. Some of the land is leasehold area, of which the leases will not expire until 1900 and 1918.
318. As soon as possible they intend to throw open all that land? Yes; probably.
319. Is there much of it open for conditional purchase at the present time? Yes, there is a fair amount.
320. All the portions coloured brown, I suppose? Well, no, because in order to permit of the land being set apart for settlement lease those parts are to be reserved temporarily. They have been withdrawn from conditional purchase, but there are patches here and there still available for conditional purchase.
321. I suppose eventually a great many of the reserves at present within the area will be thrown open either as conditional purchases or special areas? Probably; but there are no very large reserves within the area. In the parish of Moomin there is a reserve of 3,700 acres, which is being got ready for settlement, and there is also a reserve of 2,300 acres in the parish of Minnaminane which is also being got ready.
322. Is there any timber on the forest reserve shown on the map? I could not say; the presumption is that there is timber upon it.

George Charles Yeo, Draftsman, Stock Branch, Department of Mines, sworn, and examined:—

- G. C. Yeo. 323. *Mr. Lee.*] Have you prepared a plan or statement showing the country which would be affected by the proposed railway from Woolabra to Collarendabri? Yes. The area is shown on the map which I now produce. It is bounded on the north by the Queensland Border to the Barwon River; thence down that river about 30 miles; thence east approximately along the Meroe Creek to a point north of Millie; thence by a line south to a point about 30 miles north of Wee Waa; thence generally westerly to the Barwon River at a point about 12 miles lower down than Collarendabri; and thence north-westerly to the point of commencement on the Queensland Border. I have also a return of the stock on the area just indicated. According to the return of the 31st December, 1897, there were 3,179 horses, 8,879 cattle, and 914,634 sheep. The annual traffic between Collarendabri and Millie, which is about 15 miles from Woolabra, consists of—horses, 1,000; cattle, 5,000; sheep, 250,000; and the stock travelling the rivers away from Millie out to Collarendabri comprise—horses, 500; cattle, 1,000; sheep, 100,000. Those figures relate to the twelve months ending 31st December, 1897. Then there is also traffic coming down the river from Mungindi and passing through Collarendabri.
324. Where to? It may branch anywhere. It may go right on down the Barwon, or it may go to Collarendabri and be trucked there, should there be a railway.
325. Would that be stock traffic that would be likely to be affected by a railway at Collarendabri? I think so. That is the reason I took it in. This traffic from Mungindi to Collarendabri represents 700 horses, 7,500 cattle, and 80,000 sheep; and going the reverse way, from Collarendabri to Mungindi, there is a traffic comprising 250 horses, 600 cattle, and 60,000 sheep. These last figures refer to a similar period. I may also state that the average clip per sheep in grease in that locality last year was 6 lb., and for

for lambs, 2 lb. In the area I have given as that which would be affected by the proposed railway I have excluded a large portion of the area shown on the map prepared by the Lands Department, for the reason that I have already included that country within the area to be affected by the railway from Narrabri to Pilliga.

G. C. Yeo.
15 Mar., 1898.

326. Have your Border quarantine regulations of late had the effect of diverting in any degree the traffic that used to come over the Queensland Border? No, not at this particular point.
327. Notwithstanding that under your regulations the cattle coming over have to be examined? Those regulations have not interfered with the cattle coming over.
328. As a matter of fact, that route is just as much availed of now as it was before the quarantine conditions were imposed? Exactly.
329. In the event of the tick pest travelling down in that direction, would the fact not materially interfere with the stock coming over from Queensland? I daresay it would. The chances are that it would cause a prohibition.
330. Does the Department anticipate any such calamity? No, not in that direction.
331. You do not fear the spread of the pest in that direction? No, not out there.
332. You think it more likely to affect the coastal parts? Yes, that is where we fear it most.
333. Has your Department considered the question whether wool passing through a tick-infested district should be liable to quarantine on the Border, the same as live stock? I could not answer that question.
334. It has not been considered yet? Not that I am aware of.

Edward McCarthy Allman, Assistant Engineer, Roads Branch, Department of Public Works, sworn, and examined:—

335. *Mr. Wright.*] Have you a statement to make to the Committee with reference to the roads which would be affected by the proposed railway extension? Yes; I have a statement showing the roads which would be affected by the railway, and the expenditure upon them up to date. It is as follows:—

E. M. Allman.
15 Mar., 1898.

SCHEDULE Roads affecting construction of proposed line of Railway from Woolabra to Collarendabri.

Item.	Name of Road.	Years.	Expenditure.					
			Total.		Average.			
			£	s.	d.	£	s.	d.
1897-8.								
795	Moree towards Narrabri	22	24,323	0	0	1,105	0	0
809	Narrabri towards Moree							
796	Moree, <i>via</i> Goonal, to Mogil Mogil	11	5,963	0	0	542	0	0
813	Woolabra (Little Bumble), <i>via</i> Millie, to Meroe.....	8	3,393	0	0	424	0	0
804	Ironbarks towards Boolcarrol	10	2,830	0	0	283	0	0
1,364	Walgett to Goondabloin	1	300	0	0	300	0	0
1,365	Walgett, <i>via</i> Goodooga, to Brenda.....	4	1,773	0	0	443	0	0
1,370	Collarendabri towards Narrabri	4	644	0	0	161	0	0
1,371	Collarendabri towards Angledool	5	976	0	0	195	0	0
1,376	Wee Talaba, <i>via</i> Angledool, to Goodooga	4	326	0	0	81	0	0
			£40,528	0	0	£3,534	0	0

336. Could you give the Committee any information as to what effect the construction of the proposed railway would have upon road expenditure in the district? It is difficult to say exactly what effect it would have, except that it would certainly reduce the expenditure on the road from Collarendabri towards Narrabri. That is nearly coincident with the proposed railway line as far as it is scheduled.
337. Do you think the construction of the railway would necessitate the opening of any roads not now in existence in order to give access to the railway? It is quite possible that would be the case. I cannot say, from my knowledge of the district, how much we might expect in that direction.
338. So that it is quite possible that whatever might be saved on the direct road from Moree to Collarendabri would be more than spent by opening up new roads to give access to the railway? That is quite possible.
339. What is the experience of the Department generally about railways running through a district;—do you find it lessens or increases your road expenditure? I do not think it lessens it very perceptibly. Of course, on parallel lines it would have the effect of reducing the expenditure and reducing the traffic; but on feeder and branch lines, in all probability, the expenditure on roads would increase if the traffic increased.
340. The construction of these branch railways means an increased expenditure on the Road Vote in maintaining roads, and in opening new means of access to the railways? Yes; on some roads the effect would certainly be to increase the expenditure, and in other cases to reduce the expenditure.
341. The general experience of the Department is that it means increased expenditure? I would not like to say absolutely that it means an increase, but I should not think the effect would be to decrease the expenditure—not on the whole.
342. Your experience is that the construction of railways, and of branch extensions especially, does not minimise the cost of the roads? I do not think so—not to any material extent, at any rate.
343. When preparing your statement as to the roads affected by the proposed railway, did you confine yourself to any particular distance from the line? No; we have merely shown the roads likely to be affected.
344. If you will look at the map furnished to the Committee by the Lands Department you will see that they have given as the sphere likely to be influenced by the railway a radius of 20 miles on either side of the line and 20 miles west of the terminus;—could you furnish the Committee with the total expenditure on roads within that area, and state what, in your opinion, would be the increase or decrease in that expenditure caused by the construction of the railway? I could have that information prepared. But I do not think the railway will make very much difference as regards these roads. There are really very few of them.
345. The question is, how will they be influenced by the construction of this railway, or will they be influenced at all? I question whether some of them would be influenced at all, or to any appreciable extent, because we shall still have to maintain them.

MONDAY, 28 MARCH, 1898.

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.
The Hon. DANIEL O'CONNOR.JOHN LIONEL FEGAN, Esq.
FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Woolabra to Collarendabri.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and further examined:—

H. Deane. 346. *Chairman.*] Since you last appeared before the Committee in connection with this inquiry you have had prepared a map showing a line from the north-western system eastward, in the direction of Collarendabri? When I was before the Committee, on the last occasion, I was asked to arrange for an exploration of the country between Moree and Collarendabri, and between Narrabri and Eurie Eurie. I did so, and Mr. Stuart has been over the country, and made a report upon each of those lines. The lines I believe were suggested chiefly by Mr. Hassall. The object of Mr. Stuart's examining the country was, to ascertain the class of country passed through by the routes in question, and the extent to which the river and creek floods would affect them. I have Mr. Stuart's report with me, and also a plan which he has prepared showing the route which he has been over. I would ask the Committee to be so good as to examine him upon the different points, because I think he will be able to give you a great deal more information in detail than I should be able to do. I should be only able to give the Committee the information second-hand. No doubt the Committee would like to obtain from Mr. Stuart information upon points upon which I do not at all feel posted up.

28 Mar., 1898.

347. Can you give the Committee the comparative cost of the several lines in a general way? No; only so far as to say that neglecting the principal water-courses, I should assume that the cost of construction would be about the same as that of the line submitted, that is to say, the first section of the line from Woolabra to Collarendabri.

348. You would prefer to reserve your evidence in regard to cost until Mr. Stuart has been examined? I do not think I am in a position to give further evidence as to cost. I know nothing of these routes beyond what Mr. Stuart has already informed me verbally and in his reports. It is impossible to make an accurate estimate of any line without having the sections taken out—and that is particularly the case with regard to creek crossings and flooded country; so that if an estimate were formed it would be more or less of a guess.

349. *Mr. Wright.*] Could the Committee consider that the expenditure would not exceed roughly £2,000 a mile? I should not like to bind myself in any way; but Mr. Stuart is pretty well versed in my method of making up estimates. I think he would be in a position to give you a rough estimate of the cost.

350. Have you considered Mr. Stuart's reports? I have read them.

351. Will you describe the lines in a general way? I think the best plan would be for me to read the reports. The first report deals with a proposal to take the line from Narrabri to Eurie Eurie, and is as follows:—

Department of Public Works, Railway Construction Branch, Engineer-in-Chief's Office, Sydney, 28th March, 1898.

Memorandum to the Engineer-in-Chief, Railway Construction.

Sir,

Narrabri to Eurie Eurie.

I beg to report that I have inspected the proposed route, and laid down on the county maps a line (as shown on the accompanying tracing) on the northern side of the Namoi River, which would be easiest constructed, and least interfered with by flood-waters.

Leaving the main Narrabri-Moree line about 255 miles from Newcastle, and bearing in a north-westerly direction round what is known as the gravelly ridge, cross the T.S.R. Narrabri to Moree to the north of the "Ironbarks Hotel"; thence following the low ridges (about 3 miles out from the Namoi River) which form the watershed between this river and Galathera Creek, crossing one or two swampy places, *en route* strike the T.S.R. Gurleigh Point to Boolcarrol at 278 miles, about 5 miles from "Tribe's Hotel"; thence bear south-westerly, keeping well north of the Wire Lagoon, and follow the highest ground (red ridges interspersed with black-soil swamps, sound ground) round to the head of Pian Creek, about "Keileher's Hotel," at 291 miles, and near where the T.S.R. to Burren and the upper T.S.R., on the north side of the river to Warren join; this point is almost 8 miles from Wee Waa, which is accessible by bridges across the river and the important creeks. (Of this latter portion of the route, a distance of about 10 miles is more or less flooded, as when the Namoi rises to a certain height it breaks across here, and the flood-waters flow round by Boolcarrol, Nowley, and Burren, joining the Barwon flood-waters in Mercadool. This flood-water, where the line proposes crossing, varies from nothing to 1 foot on the ridges, and in the swamps from 1 foot 6 inches to 3 or 4 feet at deepest points.) After passing Keileher's, we get on to dry red ridges, which form the divide between the Namoi and Pian Creek: these are followed almost continuously in from a north-west to westerly direction to near Cryan New Station (this part of the route passes Pilliga, about 20 miles distant, to the south, and reached by a T.S.R. which is bridged across the Namoi); thence black soil is encountered to Pian Creek, which floods along its banks; after crossing this creek the line strikes the plains of Eurie Eurie, country which in all ordinary floods is dry, one portion at the Old Stockyards having never been known to be under water; crossing these plains, the line would terminate at 357 miles, a distance of about 103 miles from Narrabri, and about 1½ mile from Eurie Eurie Station (this latter is on flooded country), close to where the T.S.Rs., Walgett to Wee Waa and Narrabri and Walgett to Collarendabri, meet, being about 12 miles from Walgett (which is accessible by a bridge across the Namoi) and 40 from Collarendabri. The country from this point to Walgett is flooded.

Taking the line as a whole, with the exception of the 10 miles between the Boolcarrol Road and Keileher's, the line might be considered a good one, no main water-course, except Pian Creek, having to be encountered; and it follows, for a great portion of the way, low dividing ridges, which are specially adapted for drainage.

An alternative route, to take in Wee Waa, might be got by starting at West Narrabri and, keeping on the south side of the river up to this township, cross about Weeta Waa, and gain the other proposed route in Merah North. Very much the same extent of flooded country would have to be encountered, with bridges across the Namoi and Bohema and Gunidegera Creeks, which latter would increase the cost of the line.

The country passed through on the northern route is probably some of the best in the district, and the line, I think, would get as large an amount of traffic as any other.

Timber suitable for railway construction is available on the southern side of the river. Ballast would have to be brought from some distance.

CHAS. McD. STUART.

352. How will that new proposal compare with the proposed line from Narrabri to Pilliga, or the line from Woolabra to Collarendabri? The line from Woolabra to Collarendabri cutting off the last 10 miles of the route which passes over flooded country is, undoubtedly, the driest that can be got. The line from Narrabri

Narrabri to Pilliga will also be a dry line, because it can be kept clear of the Namoi flats; with the exception of the crossing over the Brigalow Creek and some other creek crossings, the line can be kept entirely out of the flooded area.

H. Deane.
28 Mar., 1898.

353. What would be the length of the line to Eurie Eurie? 103 miles. The line from Woolabra to Collarendabri with 10 miles off would be about 70 miles, and the length of the Pilliga line 55 miles.

354. The haulage would be less than over the Woolabra line? There would be very little difference. The distance from Collarendabri to Newcastle *via* Woolabra would be 361 miles, and the distance from Eurie Eurie to Newcastle 356 miles.

355. *Mr. Fegan.*] How far would the Eurie Eurie line be from Walgett? Twelve miles.

356. *Chairman.*] You think that line would fairly serve the country which it is proposed should be served by the two lines from Narrabri and Woolabra respectively? I should not like to express any opinion about that. I have never been asked to look into the question from the point of view as to which line would suit the country best.

357. But as to service and distance? I think that on that point I would rather not express an opinion. In their terminal points the lines are some considerable distance apart. Each one would serve the district best which is nearest to it, and one line would not altogether take the place of either of the others or of both of them.

358. Without giving any figures, can you say in which class you would place this proposal;—is it a new line? It is a cheap line, except that there would be some expense in crossing the flooded country, or the Namoi, as the case might be.

359. *Mr. Hoskins.*] You do not think that the middle line would take the place of either of the other lines suggested? I do not think so. If I remember rightly, it was suggested by the Committee themselves, when the direct line from Narrabri to Moree was chosen, that a branch should be made from that line to serve Millie. The proposed line from Woolabra to Collarendabri serves Millie by coming within a few miles of it. A line starting from Narrabri and going down the Namoi would not serve Millie.

360. How far would Millie be from the main Narrabri-Moree line? About 12 miles. A good deal of the central portion shown upon the map, which would be served by the line from Woolabra to Collarendabri, would not be served so well by the other line.

361. Taking Walgett as the centre of the district to be served, would this last line suggested be the more convenient way of getting there;—would it be better than having two lines? I should not like to express an opinion on that point. I have been told that a line on the north side of the Namoi, running into Eurie Eurie or Mercadool, would not serve Walgett, because the traffic from the south would not cross the river. I do not know upon what ground that statement is made, but it is made repeatedly. If that be true the suggested line would not serve Walgett at all. It certainly looks as if it ought to serve Walgett, coming within 10 or 12 miles of it.

362. *Mr. Wright.*] You have not been over that country? No; but I know that it is the class of country which we meet with in the north-western district. I also know what the Namoi is like for a few miles down from Narrabri. I have examined crossings on the river there.

363. You do not, as an engineer, care to express an opinion as to the probable traffic on the line? No; but I might be allowed to say that the two lines were considered at the last meeting at which I gave evidence, and it was thought by some members of the Committee that if a line went from Moree to Collarendabri it would have this advantage, that it would be in a direct line with the Inverell country, forming a cross-country link with the New England District. I will now submit Mr. Stuart's report with regard to the Moree-Collarendabri route. It is as follows:—

Department of Public Works, Railway Construction Branch, Engineer-in-Chief's Office, Sydney, 28th March, 1898.

Memorandum to the Engineer-in-Chief, Railway Construction.

Moree to Collarendabri.

Proposed direct route on the north side of the Gwydir or Meei River.

I BEG to report that I have examined the proposed route which is laid down on the accompanying tracing by a green line:

Leaving Moree at the present terminus it bears north-westerly across the Meei; thence passing through some Government Reserves it strikes across to Greenbah Creek, which it crosses near the same point as the main Moree-Collarendabri road; thence westerly to Tarran Creek, which it crosses, and thence follows the highest ground between the Goonal or great anabranch of the Gwydir River and the Meei, keeping close to the new main road, and crossing the Goonal about 3 miles from where it joins the Meei, and a short distance from the "Mclao Hotel"; thence it follows the T.S.R. on the northern bank of the river to Callymunel Station (which is situated on an anabranch of the Barwon River), terminating on the highest ground to the south of the station, and in such a position that, if extended, it would cross the Barwon and its accompanying warrambools and flooded ground at the narrowest point.

This point would be about 386 miles or 71 miles, from Moree, and would be distant from Collarendabri by an extension across the river about 15 miles, and by the present available road bridges about 20 miles.

The greater portion of this line from some 17 miles from Moree to within 10 miles of its termination is more or less liable to floods, as from about this point the Goonal breaks over on both sides forming what is called the Watercourse country,—this flood is comparatively light up to near where the Goonal is crossed; thence to within a few miles of the termination the country is flooded throughout, on the north side of the river, varying in depth from 6 inches to 2 or 3 feet,—in high floods it stretches right across the country to the Boomi anabranch of the Barwon.

A drier route might be got (shown by a dotted line) by recrossing the Meei between Meero and Derrah before it and the Goonal join, and from that point follow down the southern side of the river, which is higher than the northern, but more interspersed with creeks and warrambools; this route to terminate at the same point as the other would necessitate recrossing the river near the present road bridge at the point shown on the map.

Another route, about 5 miles longer, might be taken by keeping south of the Meei, from Moree, and joining the last-mentioned route in the parish of Wirri South, about 55 miles from Moree. This line, although dispensing with the first two crossings of the Meei and of Greenbah and Tarran Creeks, has Hall's, Weale, or Tycannah, the Moonin and Mallowa Creeks to cross, besides several small warrambools and stretches of swampy country.

Owing to the flooded nature of the country necessitating higher embankments, as well as the number of bridges which would have to be constructed, I do not consider any line in this direction advisable at the present time, nor do I think it would bring in as much traffic to the railways as a line further south.

CHAS. McD. STUART.

Charles

Charles McDonnell Stuart, Supervising Engineer, Railway Construction Branch, Department of Public Works, sworn, and examined:—

C. McD.
Stuart.
28 Mar., 1898.

364. *Mr. Wright.*] With regard to the proposed extension from Narrabri to Eurie Eurie, you state in your report that a portion of the country traversed is under water? Yes.
365. Would the line in your opinion be a cheaply constructed line? With the exception of the 10 miles that are flooded, it would not cost more than the cheapest line you could get. There are some long swamps in the flooded portion which might have to be bridged right across.
366. Will you locate the flooded portion? The line would be flooded from "Tribe's Hotel," on the main travelling stock route to Boolcarrol, and the flooded area would extend to "Keileher's Hotel," near the head of Pian Creek, a distance of about 10 miles. It starts at 278 miles, and the flooded ground does not die out before you get to 290 miles. I have called the distance 10 miles because parts of it are dry.
367. Are we right in assuming that with the exception of that 10 miles the whole of the balance of the country traversed is fairly good for cheap railway construction? Yes.
368. You spoke of timber and ballast being obtained for the line on the south side of the Namoi? Yes.
369. In the event of the line from Woolabra being constructed, timber would have to come from the same place? Yes.
370. And there would be a considerable amount of haulage? Yes.
371. At your terminal point at Eurie Eurie have you fairly high ground? Yes; it would be only under water in the case of an exceptionally high flood.
372. Could a bridge be easily constructed over the river in the event of an extension of the railway to the north-west being considered? In the event of such an extension there would be three large bridges to construct. The first would be over the Thalaba Creek, the second over another warramboul, the name of which I forget, and the third would be over the river proper—the Barwon.
373. You have travelled much over this part of the country? I have been over it two or three times.
374. You have a fair knowledge of the trend of the traffic;—would a line from Eurie Eurie take in any traffic from the Angledool and Narran country? It would tap some of it, which would probably go by the Boolcarrol stock route. From anywhere to the north-west the traffic would go in a south-westerly direction.
375. What about the traffic round about Angledool? I do not know that part.
376. Can you give the Committee an idea, approximately, as to what the cost of the suggested line would be? I think it would be safe to say that it would not cost more than £2,500 a mile, taking the route indicated. The 10 miles of flooded country line would cost a great deal more.
377. The average would be the average cost of cheap railway construction? Yes.
378. You have been on the south side of the Namoi? Only as far as Pilliga.
379. Mr. Deane, in his evidence, expressed the opinion that a line, if constructed from Eurie Eurie, might not serve Walgett;—can you give any reason why it should be so? I did not hear Mr. Deane say definitely that a line would not serve Walgett. It would be within 12 miles of Walgett, and there is a good bridge across the Namoi.
380. You see no reason, then, why a line at that point should not serve Walgett? No.
381. You think that if there were a bridge across the river at your terminal point at Eurie Eurie the bulk of the northern traffic would also come direct to the railway? Yes.
382. Do you not think that a town like Walgett, with a railway 12 miles distant, might be considered well served? Yes.
383. A line to Eurie Eurie would also put Collarendabri and the district round it in a much better position in the matter of communication with Sydney than they are in at the present time? Yes.
384. Do you not think that one railway passing through a pastoral country of this description might be considered to give it a fair and reasonable means of communication? Of course, you must bear in mind that the Woolabra line would be an intermediate line, but the people to the south would not like to go back in order to get on to it. They would prefer to go right into Narrabri.
385. Did you survey the Woolabra line? I went over it; I did not survey it.
386. A portion of that land is also considerably subject to floods? Yes, at a place known as the Jews' Lagoon.
387. How much is there? About 2 or 3 miles of it.
388. But about 10 miles on this side of Collarendabri is all flooded country? Yes; but I do not suppose the line would go into Collarendabri.
389. But if it did go into Collarendabri you would have some 10 or 12 miles of flooded country? Yes.
390. It would appear, then, that whichever of these routes were adopted, there would be about the same area of flooded country to be crossed? Yes.
391. Is there much flooded country on the proposed line from Narrabri to Pilliga? No; but it would pass through very poor country. There is no good country, to my knowledge, on the south side of the river.
392. It would be poor country on the south side for the whole distance? Yes.
393. The only advantage in the construction of that line would be that you would be handy to the timber and ballast? Yes.
394. I understand, then, that on the suggested line from Moree to Collarendabri there would be more flooded country than on either of the other routes? Yes.
395. You have gone on the north side of the river? Yes; that is the way the people down there wished the line to go. I saw the district surveyor and the Chairman of the Land Board, and the line I selected was the line which they recommended.
396. Did you find it the best line from an engineering standpoint? The line to the south of the river would be rather better from that standpoint, but it would cost fully as much to make it owing to the number of creeks that you would have to cross.
397. You said that you could not recommend the suggested line? Owing to the area of flooded country.
398. I understand you to say that you do not think that it will secure the traffic as well as would the other line? Quite so, because the country to the north is so much flooded that it is not approachable except at certain times.
399. Mr. Hassall, in asking that the line from Moree might be considered, thought it would have an advantage in continuing a direct western line? That is a strong point in its favour.

C. McD.
Stuart.
28 Mar., 1898.

400. Apart from that you do not look on it with favour? No.
401. How is the country populated between Moree and Collarendabri? There are only about half-a-dozen selectors. The rest of the holdings are stations.
402. It is pastoral country? Yes.
403. Even the selectors are pastoralists? Yes.
404. What population is there on the route from Narrabri to Eurie Eurie? It is also a pastoral country, but more selections have been taken up.
405. The whole of that country is pure pastoral country? It has been up to the present time.
406. You have had some considerable experience there? Yes.
407. Is it your idea that that country will remain pastoral for many years to come, or that it will come under other occupation? There is a great deal of country in New South Wales quite as well adapted to agriculture as is that part of the country, and I cannot see, therefore, that it is likely to come under agricultural occupation very soon.
408. What are its climatic conditions? It has a fair rainfall, but it is not regular.
409. You think that it is pastoral country, well adapted for agriculture with a more regular rainfall, and that it may be taken up for agriculture at some future time? Yes.
410. You think that agricultural occupation may be regarded as being a long way off? Yes. No doubt ultimately it will be used for agriculture. They are already beginning to grow some wheat at Narrabri, but only on a small scale.
411. Do you see any necessity for intersecting that country with railways? That is an important question upon which I do not wish to express an opinion. I think that the railway system in that part of the country should be gone into as a whole. It is a very big question.
412. Does it not strike you that in that part of the country one railway passing through the centre of it may be regarded as fairly well serving the whole, while it is in its present condition? Yes.
413. *Mr. Fegan.*] Taking the Eurie Eurie line, what would be the nearest point on that line to the Pilliga line? About 20 miles.
414. What kind of country is it about Pilliga? On the north side it is all fairly good country. On the south side it is not. The only thing I can say in favour of the line on the south side of the Namoi is that it passes through the townships of Wee Waa and Pilliga.
415. The line from Narrabri to Eurie Eurie you think will serve the district much better? Yes.
416. Do you think that line will suit the greater number of settlers? I think that that line and the Woolabra line would suit the greater number of settlers.
417. But would you recommend both lines under present circumstances? No.
418. Comparing the Woolabra line with the Eurie Eurie line, which would you recommend? I think I should feel inclined to recommend the Eurie Eurie line, but it is a nice question. You would have to go into details of what the traffic would be. A lot of traffic which you would get by the line from Woolabra to Collarendabri you would not get going the other way.
419. Do you not think that by taking the line to Eurie Eurie you would get the Collarendabri traffic? You would get a great portion of it.
420. And you would also get a great portion of the Walgett traffic? You would get all the Walgett traffic.
421. Also the traffic from out towards Angledool? I do not know about that. There would be a difficulty in getting across the river. There is a bridge some miles west of Walgett and the next is at Collarendabri.
422. Are they good bridges? Yes.
423. But they would not carry a railway? No.
424. Is there not a metalled road into Walgett? No.
425. What would the cost of a metalled road be? I could not say; you have to contend with so much flooded country. For instance, the road from Collarendabri to Eurie Eurie would be impassable in flood-time.
426. What is the distance between those two places? Forty miles.
427. Where would you get the material for road construction at Walgett? I cannot say; I have not been there.
428. It is evident that a great deal depends upon the cost of the construction of a good road—that is as to whether you are likely to get the traffic from Walgett or not? Yes.
429. For how many miles on the other side of Walgett do you think a line to Eurie Eurie would take the traffic? It would get just as much as if the line came into Walgett on the southern side, because the distance from Narrabri is so great.
430. Where would you get your ballast? I do not know. We might have to get it from Woolabra. It would probably mean getting it by rail.
431. Would the line to Eurie Eurie cut through much private land? I do not think so. It would pass chiefly through runs. I do not know what land has been purchased.
432. *Chairman.*] Would the line between Narrabri and Eurie Eurie pass through equally good country with that traversed by the line from Narrabri to Pilliga, or by the line from Woolabra to Collarendabri? It would pass through much better country than would the line from Narrabri to Pilliga, and the country would be equally as good as that on the other line.
433. By way of comparison, which would be the most costly line? If anything the line to Eurie Eurie would be a little more costly, owing to the 10 miles of flooded country.
434. You are comparing that line with the line from Woolabra to Collarendabri? The cost would be about the same, taking it right through. It would not be less, owing to the 10 miles of flooded country.
435. What are the comparative distances, taking the lines from Moree to Collarendabri, from Narrabri to Eurie Eurie, from Woolabra to Collarendabri, and Narrabri to Pilliga—I mean the distances of the respective termini from Newcastle? The line to Eurie Eurie would terminate at 357 miles from Newcastle. The line from Moree to Collarendabri would stop 15 miles from Collarendabri, and would be 386 miles from Newcastle. The line from Woolabra to Collarendabri would be 12 miles from Collarendabri, and would terminate at 354 miles from Newcastle. The line to Walgett *via* Pilliga would be about 365 miles from Newcastle, and this line would go right into Walgett.
436. The line from Moree to Collarendabri would be lengthier than the others? Yes; you would have to add 15 miles to the length I have given you.

437.

- C. McD. Stuart.
28 Mar., 1898.
437. And the country which would be served is inferior to the country which would be served by the new proposal? Yes; owing to so much of it being flooded. You could only run cattle upon it. Sheep would be drowned upon a great portion.
438. Would the Collarendabri traffic be likely to reach a point on the line from Narrabri to Eurie Eurie, or would it come right into Narrabri? It would reach that line at a point about 278 miles from Newcastle, or about 23 miles from Narrabri.
439. *Mr. Hoskins.*] How far would the suggested line from Eurie Eurie pass from Wee Waa? About 8 miles.
440. Would there be much difficulty in communicating between the proposed line and Wee Waa? No difficulty. There is a good bridge across the river, and a good bridge across the creek.
441. Looking at the sparse population in the north-western district, and seeing that the country is devoted entirely to grazing, do you not think that the suggested line to Eurie Eurie would meet all the reasonable requirements of the people? Yes, I think so. Only people within a certain distance will go to the line. For instance, some people might prefer to go to Moree, due east, instead of going down the other way.

WEDNESDAY, 30 MARCH, 1898.

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.

JOHN LIONEL FEGAN, Esq.

The Hon. DANIEL O'CONNOR.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Woolabra to Collarendabri.

Edward MacCarthy Allman, Assistant Engineer, Roads Branch, Department of Public Works, sworn, and further examined:—

- E. M. Allman.
30 Mar., 1898.
442. *Vice-Chairman.*] I understand that you have prepared some information for the Committee? Yes. I have here a supplementary return dealing with the roads wholly or partly within the district within 20 miles of the proposed railway. The return is as follows:—

Item on 97-8 Schedule.	Name of Road.	Total Mileage.	Mileage within 20 miles limit.	Vote 97-8 for entire length.	Probable increase.	Probable decrease.
795	Moree towards Narrabri	34	18	£ s. d.	£	£
809	Narrabri towards Moree	48		50 0 0	Nil.	Nil.
796	Moree <i>via</i> Goonal to Mogil Mogil	87	25	200 0 0	Nil.	50
813	Woolabra (Little Bumble) <i>via</i> Millie to Meroe	50	33	300 0 0	Nil.	Nil.
1,370	Collarendabri towards Narrabri	40	40	150 0 0	Nil.	100
1,364	Walgett to Gundabloui	85	45	300 0 0	Nil.	Nil.
1,371	Collarendabri towards Angledool	60	22	200 0 0	Nil.	Nil.

So far as the roads *now* on schedule are concerned a small annual saving might be expected, but this would probably be more than covered by increased expenditure in opening new roads to intermediate stations and, until the positions of these are fixed, it is not possible to say, with any certainty, how, or to what extent the annual expenditure may be affected.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

SECTIONAL COMMITTEE.

RAILWAY FROM WOOLABRA TO COLLARENDABRI.

REPORT.

THE Sectional Committee, appointed on the 22nd April, 1898, to inspect, take evidence, and report with reference to the proposed Railway from Woolabra to Collarendabri, have the honor to report to the Parliamentary Standing Committee on Public Works, as follows:—

The Sectional Committee, consisting of Mr. Thomas Thomson Ewing, M.L.A., the Hon. Charles James Roberts, C.M.G., M.L.C., Mr. John Lionel Fegan, M.L.A., and Mr. Thomas Henry Hassall, M.L.A., left Sydney on Saturday, 30th April, and, after taking evidence in reference to the proposed Railway from Narrabri to Pilliga, proceeded to Collarendabri, subsequently travelling over the route of the proposed railway to Woolabra. The Sectional Committee were accompanied by Mr. Charles M'Donnell Stuart, Supervising Engineer, Railway Construction Branch, Department of Public Works. Evidence was taken at Eurie Eurie, Collarendabri, and Millie, after which the Committee returned to Sydney on 19th May.

It is usual, in dealing with any work referred to the Committee for consideration, to consider its merits without special reference to any other work; but in the two cases which have been referred to the Sectional Committee for inquiry, it was apparent to the Full Committee, before the local investigations took place, that the two works might possibly merge into one. This view was strengthened as the Sectional Committee obtained fuller information. They determined to consider the question of the development of the country which possibly would be affected by a line from Narrabri to Pilliga, and from Woolabra to Collarendabri, as being so intimately connected, that it was possible to deal with the whole matter in a single report. This report will be common to the two proposals, and will also be much more comprehensive than two reports, which would lose weight by endeavouring to deal with the development of country by different proposals which really belong to the same area.

The Sectional Committee make this explanatory note before dealing with the matters under consideration.

The distances from Sydney by the various routes to Walgett and Collarendabri have already been placed before the Full Committee. The distance to Newcastle is also in the evidence given before the appointment of the Sectional Committee. These distances taken into consideration with the fact that the trade relations of the whole of the area of country are with the Newcastle district, and that a proportion of the wool now goes over sea from Newcastle, justify the Sectional Committee in coming to the conclusion that the approach should be with the North-western line and not with the Western.

The country which will be developed by the two lines previously mentioned is, generally speaking, bounded on the east by the Moree-Narrabri line, and its extension towards Newcastle; on the north by the limits of such traffic as may reach Collarendabri, or any portion of the line from there to Woolabra, in preference to Moree; that area of country extending beyond Angledool to the Queensland

Queensland border, which will probably reach Collarendabri and Walgett in preference to Brewarrina, were a railway constructed to the latter place, and that portion of the Colony of Queensland the traffic of which would find its way, *via* Angledool, Mogil Mogil, or any routes to the north, to Collarendabri or Walgett. On the south its limits would be first affected by the proposed railway to Coonamble.

In order not to over-state the area under consideration, the Sectional Committee have, for the purposes of the inquiry, inferred that it is possible that railways will be extended as far as Coonamble and Brewarrina within a reasonable time. The Sectional Committee desire to lay down the limits of the country with regard to which there is no doubt better accommodation will be given by termini at Walgett and Collarendabri than by any other scheme. The Moree-Narrabri line will serve all areas lying, say, 25 miles west therefrom. The Coonamble line will possibly draw the traffic half-way between that place and Walgett. Angledool traffic will probably, under all circumstances, reach Collarendabri or Walgett. Weetalibah and Goodooga may, however, be considered debatable country from which it is possible some produce will find its way to Brewarrina.

The recent *Gazette* notice published by the Queensland Government on 11th December, 1897, removes the £2 10s. duty on wool shorn across the border from within a distance of 30 miles therefrom.

The Sectional Committee believe, after considering the cost of carriage and railway freight, taken into consideration with the relative importance of Brisbane, Sydney, and Newcastle as ports, that in all probability the whole of the wool grown on this 30 miles limit, and also most of the stock and cattle depastured thereon, will find its way to New South Wales. It is probable that the limits of the influence of Collarendabri and Walgett, if railways were extended to them, would require to be fixed, perhaps, another 30 miles to the north. A limit therefore of 60 miles north of the New South Wales boundary, on the north to midway between Walgett and Coonamble, say about Combolong, on the south, on the west to midway between Walgett and Brewarrina, and within 25 miles of the Moree line on the east, embraces the area under consideration.

That portion of this area within the Colony of New South Wales north and south of the Namoi, and west of Come-by-Chance, may be regarded as first-class grazing country, large portions of which will, probably, in the near future, be placed under cereals. Over the Queensland border there is a large area of inferior country, but still a territory 60 miles wide, which will supply a very considerable amount of produce that will aid in contributing to the commercial basis of lines having their termini at Collarendabri or Walgett.

West from Narrabri and extending beyond Pilliga—separated from the river by a narrow tract of good land—and extending west towards Come-by-Chance, and passing south therefrom, and reaching almost from the road from Come-by-Chance to Coonamble, and then extending south-east towards Coonabarabran, is a large tract of country known as The Scrub. Although there is little doubt that there are portions within these limits which can be utilised either for agricultural or pastoral pursuits, still there is no probability of there being any extensive demand for them until areas which can be more readily cultivated and brought more cheaply under cultivation are fully utilised. The Sectional Committee do not dismiss the class of country known locally as the scrubby country as being valueless, but for the present it appears probable that there will be no extensive settlement upon it, and most of the returns which a railway could obtain would be from the pine and ironbark timbers of which there is a large quantity.

The approximate distance from Walgett to Coonamble is 72 miles; Brewarrina to Walgett, 90 miles; Narrabri to Walgett, 123 miles; and from Narrabri to Collarendabri, 100 miles. The traffic at present reaches the district almost wholly *via* Narrabri.

Although the cost of carriage varies, according to the evidence, very considerably—taking one season with another—it is not probable that the rate of road-carriage from Collarendabri or Walgett to Narrabri will be very much under £3 per ton. The method of approach is by road, a great portion of which is black soil, and after even a reasonable fall of rain traffic is almost suspended.

After

After due consideration of the access offered to Walgett by the river Barwon, the Committee have come to the conclusion that although, at times, the river traffic might effect the returns of a railway at Walgett, it would not frequently happen. That being so, it is clear that an approach by the Barwon to Collarendabri, for ordinary trade purposes, is out of the question.

The first proposal before the Committee is the line from Narrabri to Pilliga, the cost of which is given at £128,000. The Sectional Committee do not believe that it was ever seriously contemplated to stop a line at that place for any length of time. The objective point must be Walgett, and the construction of any line from Narrabri to Pilliga would certainly carry with it an extension to Walgett. Therefore, it has been determined to take into consideration not only the present proposal—the line from Narrabri to Pilliga—but the line Narrabri to Walgett.

Pilliga is approximately half-way to Walgett. The cost of reaching Walgett would be somewhat more than double the amount already mentioned, say, £260,000. The length is 115 miles. The distance from Woolabra to Collarendabri is $80\frac{2}{3}$ miles, at a cost of £207,798. The total length of lines, therefore, proposed by the Government to tap the country which would find depôts at Walgett and Collarendabri is approximately 196 miles, at a cost of (approximately) £467,798.

The return from the Collarendabri line, according to the Railway Department, will be £7,190 per annum; from the Pilliga line, £4,720. This would certainly be materially increased if the line were extended to Walgett. Both proposed lines show a considerable loss in revenue.

The mission of the Sectional Committee really resolved itself into the question of whether it were possible with due regard to the State lands to be thrown open; settlement of an agricultural population; and a proper approach to the depôts proposed to be tapped, Walgett and Collarendabri, to provide a scheme which would develop the country more satisfactorily than the two lines under consideration, and at a cost which would permit them to recommend its acceptance.

The State lands within 20 miles of the two lines, namely, Narrabri to Walgett *via* Pilliga, and Woolabra to Collarendabri, will embrace an area of 2,454,000 acres. Full information with regard thereto has been given before the Full Committee. The annual rainfall at Walgett and Collarendabri being not much above 20 inches must, with our present ideas of what constitutes satisfactory agricultural settlement, even if the land were suitable—taking into consideration the time at which the rain falls in this northern part of the Colony—be regarded as the extreme limit; but thence towards the east, as the rainfall increases, the Sectional Committee see no reason why cereals should not be grown with sufficient success to justify the hope that a portion of this area will be put under crop.

The main difficulties in approaching Walgett and Collarendabri are the crossing of the rivers Namoi and Barwon and several creeks, which, although usually of no great magnitude, would in flood-time furnish serious obstacles. The route suggested is a modification of the proposal already mentioned before the Full Committee, with such alterations as fuller knowledge enables the Sectional Committee to make.

The evidence of the Supervising Engineer, Mr. Stuart, before the Full Committee, the Sectional Committee have found to have been given with a full and intelligent knowledge of the country under consideration. There are several points with regard thereto, however, which will require further investigation. A line, which for the first 60 miles will form an approach to both Walgett and Collarendabri, turning somewhat south of west through Eurie Eurie to the first-named place, and north-west across the Thalaba to the latter is the best route obtainable. The Committee will state what they believe to be necessary before finally deciding upon the location of the line in detail.

The line known to the Full Committee as the "green line," leaves the Narrabri-Moree line a short distance north from the town of Narrabri. If it be determined to join the main line in this direction, it should be considered whether the

the "green line" could not follow a more easterly course for the first 15 miles, thus saving new construction. The Railway Commissioners might be consulted with regard to this, for a junction might be more satisfactory to them close to Narrabri than a few miles further north as suggested. A closer investigation of the country would also require to be made in order to determine whether there would be any engineering difficulties on the route. Although the Sectional Committee are of opinion that these do not exist, still, until the levels have been taken, it is not wise to express definite opinions with regard to construction.

Although there is better land on the north side of the river, still contiguity to the timber forests on the south side and the presence of the town of Wee Waa are matters that should be fully considered. It is well, as far as is possible, to preserve as trading depôts, those centres already established by the residents, unless such preservation entails a greater expenditure of State funds than is justifiable. The Sectional Committee, therefore, suggest that there be a careful consideration of the "green line," with regard to its approach to the Narrabri-Moree line, and also a survey and estimate be taken out, and a full consideration given to the line on the south side, crossing the Namoi at Wee Waa, and joining the "green line" west therefrom, before it be definitely decided upon which side the line can be located in the best interests of the State and with due regard to existing interests. East from a point west from Wee Waa, on the north side, will be found a piece of flooded country opposite Boolcarrol; west therefrom to the junction of the lines in the parish of Dewhurst, about 315 miles along the "green line," there will probably be no serious difficulties experienced; thence on the extension towards Walgett, as far as Eurie Eurie, the line follows what is known locally as the Red Ridge as far as Cryan, west from which is black soil, but no serious impediment to a cheap line will be experienced except the crossing of Pian Creek to Eurie Eurie. From Eurie Eurie, on the north bank towards Walgett, is flooded country which will entail considerable additional expenditure.

This extension from Eurie Eurie to Walgett is a matter with regard to which the Sectional Committee had considerable doubt, but after fully weighing the matter, and taking into consideration the expenditure of Government money, and the results of private enterprise in the town of Walgett, the Sectional Committee have determined to suggest to the Full Committee, that, notwithstanding the expenditure of a larger amount per mile than usually is necessary on lines in the western district, still they feel they would not be justified in disregarding that expenditure of public money, and also the fact that large bridges have been constructed over the Barwon and the Namoi, really concentrating the trade of a considerable portion of the district upon the town of Walgett.

If Eurie Eurie were chosen as the terminus there would be the following result:—The construction of expensive bridges from the west to approach it, and the temporary transference of the business of the town of Walgett to that place if the certain agitation which would probably eventually result in an extension towards Walgett were unsuccessful for a time.

It seems improbable that the line can be brought nearer to Walgett than perhaps $1\frac{1}{2}$ mile; but investigation may enable it to be extended still further towards the south-west. This can only be decided by actual survey; but, in the opinion of the Sectional Committee, it should be placed as close to Walgett as possible, on the north side of the Namoi.

Turning now to the line to Collarendabri from the point previously mentioned—315 miles along the "green line"—the evidence obtained locally, and investigations by Mr. Stuart bring the Committee to the following conclusions:—For the first 15 miles—that is, to the north side of Burren Creek—there will be no difficulties; thence there will be a few miles of low country, but not offering any serious obstacle to construction; thence, *via* Merrywinbone, east of which it will join the Woolabra line, at about 340 miles, to within 10 miles of Collarendabri, no serious difficulty will be encountered. Further on there will be some flooded country, and the Grawin Creek and the Barwon will require bridging. Thence into Collarendabri there will be no engineering difficulty.

It

It was stated by the Department that it would be well to make the terminus of the line some 11 miles from Collarendabri, but it appears to the Sectional Committee that the line will some day be extended towards Angledool, and if that be so, for reasons similar to those stated in the Walgett case, it will be as well to preserve the centre already established by the Government and bring the line adjacent to the town; the position of the terminus should be so chosen that the approach to the west will be the best obtainable.

The length of the two lines under consideration would be somewhat over 150 miles; the proposals of the Government are 196 miles—that is, if the Committee is right in the conjecture that Walgett is the objective point of the Pilliga line. The saving in distance is, therefore, about 45 miles, and the saving in cost of construction approximately £100,000. The only question, therefore, remaining to be considered, is whether the development by this method will be as satisfactory as that proposed by the Government. In the opinion of the Sectional Committee the scheme is better, because it gives a shorter length of haulage from Walgett, and passes through superior country. The extent of Crown lands on the two lines, namely, Narrabri to Walgett on the north side of the Namoi, and *via* Eurie Eurie, and from 315 miles on that line to Collarendabri, amounts to 1,609,000 acres, which will be readily taken up in small areas. The returns from these lines will be satisfactory. The only reduction from the returns in the proposed lines will be in regard to some country lying about Bunna Bunna and Millie, which will be within reasonable distance of the Moree line, and will make to it.

Taking into consideration that the extension on the south of the Namoi is only as far as Pilliga, and also the fact that the circumstances to the north of the New South Wales boundary have been altered by the proclamation already referred to, and the great area of State lands to be developed, the Sectional Committee would suggest that the lines be located as proposed by them, it being, in their opinion, the best way to develop the district, and one which will, almost at once, result in a profitable enterprise to the State.

The evidence given before the Sectional Committee shows the liability of the rivers referred to in the Report to flood. It may be laid down that, as a general rule, a flood may be expected once in every seven or ten years. The experience of men who have lived in the district for the past thirty or forty years bears out this statement. Therefore, since the district is liable to inundation only at long periods, it may not be necessary to carry out such engineering works as would be required in case of more frequent visitations.

If the line be located on the north side of the Namoi, the connection of Pilliga and trade from the south should be arranged for at once, and the best possible roads of access should be immediately laid out and improved, in order to provide means of communication with the nearest railway station.

Since the statement by the Chief Traffic Manager apparently does not include much return for timber or wheat, and, as already pointed out, only applies to half the distance on the south side of the Namoi, it is difficult to form a comparison; but the Sectional Committee have no hesitation, after full investigation in the district, in recommending the Full Committee to suggest the full consideration of these works by Parliament.

THOS. EWING,
Chairman.

19 May, 1898.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

MINUTES OF EVIDENCE.

RAILWAY FROM WOOLABRA TO COLLARENDABRI.

[TAKEN BEFORE THE SECTIONAL COMMITTEE.]

WEDNESDAY, 11 MAY, 1898.

[The Sectional Committee met at Eurie Eurie, at 1.40 p.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).
JOHN LIONEL FEGAN, Esq. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee proceeded to consider the proposed Railway from Woolabra to Collarendabri.

William Sim, licensed surveyor, Walgett, sworn, and examined:—

1. *Chairman.*] The Committee desire to know, in the event of a line being extended from the "green line" shown on the plan, to tap the western country, what portion of the country offers the least objection from an engineering standpoint, to railway construction? In my opinion you might commence to go in a northerly direction from the 315-mile point shown on the "green line"; thence passing below Burren Creek; thence somewhere about the 340-mile point shown on the "red line" in the parish of Christie; thence following approximately the "red line" to Collarendabri, which the Committee will see is adjacent to the travelling stock route. From Collarendabri, going north-westerly, the stock route preserves a fairly good position. Although there will be flooded country at Burren Creek, also in crossing the Thalaba, also near Collarendabri, and also crossing the Barwon, still I believe the line thus located will be in the driest country.

W. Sim.
11 May, 1898.

FRIDAY, 13 MAY, 1898.

[The Sectional Committee met at the Court-house, Collarendabri, at 10 a.m.]

Present:

THOMAS THOMSON EWING, Esq. (CHAIRMAN).
JOHN LIONEL FEGAN, Esq. | THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Woolabra to Collarendabri.

Edmund Brennan Loughnan, J.P., secretary, Railway League, Collarendabri, sworn, and examined:—

2. *Chairman.*] Have you a statement to make? Yes. Any information I have to give is from statistics gathered by me as Secretary to the Railway League, which will be substantiated by witnesses. We wish to bring under your favourable notice our claim for railway extension to Collarendabri, with a view of a further extension later on to the Queensland border *via* Angledool. In support of our claim we wish to point out the following facts:—That the part that would be served by the railway we advocate to Collarendabri would embrace an area of about 200 miles in length, by about 80 miles in breadth, catching the whole of the New South Wales trade to the Queensland border north of Angledool, none of which is served by the Narrabri-Moree line, and which, without railway communication to Collarendabri, will still continue to go to West Narrabri. Starting from Millie, skirting the northern boundary westward of Malaraway, Minna Minane, Mungyer to the Gwydir River, down the course of that river westward of the Collymongle boundary; thence northwards along the eastern boundary of Collymongle, Caidmurra, and Wirrah runs to Mungindi; thence westward following the Queensland border line to the western boundary of Brenda station; then southward along the eastern boundaries of Brenda, Denman, Dumble, Bangate, Grawin South, Llanillo, and Dungalar to the Barwon River; thence following that river to the N.E. to a point opposite to the western boundary of the Eurie Eurie leasehold area; thence crossing the Barwon and following the southern or south-western boundary of Eurie Eurie leasehold area to and along the southern boundaries of Mercadool, Cryon, and Gorian; thence from the south-eastern corner of Gorian in a straight line to Millie, the point of commencement. [Except in certain seasons these boundaries would fairly include the area from which revenue could be obtained on wool or general goods, inwards and outwards; but a considerably larger area might safely be included (including the town of Walgett) in the matter of passenger traffic, or stock for trucking.] That the area named contains, at a low estimate, 2,701,394 sheep, giving, also, at a low estimate, 40,515 bales of wool, and an approximate tonnage of 6,752 tons, with a return loading equal to 2,195 tons. [Boatman station (Queensland), 190 miles from Collarendabri, sent wool through Collarendabri. This is not included in above estimate. It is largely worked with Wirrah, and has 125,000 sheep, 5,000 cattle, and 300 horses—1,500 bales, 250 tons.] That this line would be the shortest, driest, cheapest, and most practical route to the Queensland border. That the whole of the country passed through is rich country, for either agriculture or grazing, especially the latter, and is already thickly populated with thriving selectors, who, being well to do, and having built comfortable homes, show thereby their *bona fides* and intention to remain. That the route, as surveyed, is readily drained into the Thalaba Creek, from which creek abundance of water is obtainable

E. B.
Loughnan,
J.P.
13 May, 1898.

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Loughnan,
J.P.
13 May, 1898.

along the line. This creek is the only creek the line would cross until within a few miles of Collarendabri. That at Collarendabri, the Barwon being dammed by a bar of rocks, gives a magnificent sheet of permanent good water for all purposes, while abundance of good gravel is obtainable, suitable for ballasting purposes, a short distance from the town. That, should the Government extend the line, in the future, to Angledool and the Queensland border, there is nearly equally good country from Collarendabri to Angledool, with two Government bores equally dividing the distance. That a through line this way, as proposed, is certain to divert much of the Southern Queensland traffic to New South Wales, as this is its natural outlet. With reference to this matter, I would draw your attention to a notice which appeared in the *Queensland Government Gazette* in December last, which I will read:—

[*Queensland Government Gazette*, 11th December, 1897.]

The Treasury, Brisbane.

THE RAILWAY BORDER TAX ACT OF 1893.

It is hereby notified for general information, that, under the provisions of section 8 of "The Railway Border Tax Act of 1893," permission has been given to the owners of woolsheds situated within the area between the southern border line of the Colony and a line parallel thereto, and 30 miles north thereof, to convey the wool shorn at such sheds across the border without the payment of the tax provided by the said act.

HUGH M. NELSON,
Treasurer.

That, again, favours our getting the wool from a great many stations in Queensland. The statistics which I am about to hand in have been gathered by myself in reply to letters and forms sent to each landholder in the district, asking them to give certain information.

3. Are they within the New South Wales boundary? The majority of them are.

4. Is the tonnage mentioned in these statistics? Yes.

5. Does the aggregate agree with the tonnage you have already quoted? It does. The following are the statistics to which I allude:—

INFORMATION showing justice of claim for railway extension to Collarendabri. This information is subject to the alterations in tenure incidental to the occupation of the land.

Name of Owner.	Name of Holding.	Number of Sheep (approximate)	Number of Bales.	Approximate Tonnage	Route.	Back Loading tons
J. W. Pearse	Wemut	2,000	40	4	Narrabri	1
Commins Bros.	Burren Burren	20,000	380	60	"	15
Sherriff and Grant	Bairntine	8,500	165	30	"	6
J. R. Lomax	Wirrah and Caidmurra	90,000	1,000	150	Monby	50
"	Boatman (190 miles from Collarendabri).		1,120	..	Narrabri	
Burrowes Bros.	Bunna Bunna	80,000	1,120	182	Narrabri	30
Barrett Bros.	Maryvale	3,000	40	6	"	12
C. Sinclair	Moongulla West	16,000	223	33	"	16
Mort and Co.	Piangobla	20,000	244	40½	"	7
"	Moomin	3,000	60	10	"	5
Fulton and Champion	Eurool	8,800	117	17½	"	5
W. G. Ferris	Gerongra	10,000	150	30	"	10
J. Tyson	Goondablune	60,000	1,000	200	"	50
F. Ludlow	Iffley	5,000	78	11½	"	5
J. K. Mackay	Cryon	30,000	500	100	"	15
J. R. Walker	Mogil Mogil	7,000	110	19	"	20
A. M. L. & F. Co.	Dunumbral	80,000	1,380	220	"	40
Kirby Bros.	Thalaba	10,000	125	22½	"	5
A. Bloomfield	Mount Brandon	6,800	91	13	"	9
E. Cameron	Morven Vale	6,500	70	13	"	2
J. Daley	Long Swamp	3,000	35	5½	"	2
T. J. Sherwin	Millava	24,000	310	50	"	10
Exec. Bishop of Newcastle	Brenda	70,900	879	144	"	20
J. C. Amos	Burrenbah	4,000	70	9½	"	2½
J. N. Campbell	Dungalear	110,000	1,600	320	"	30
— Strong	Moomin Plains	7,000	100	20	"	10
— Smith	Oneagadgee	5,000	72	13	"	10
— Kirby	Thalaba	5,000	135	22	"	7
Gilchrist, Watt, & Co.	Llanillo	85,000	1,204	194	"	47
Exec. Newcomen	Angledool	87,000	1,030	240	"	45
W. F. Lord	Barragon	2,000	29	4½	"	3
J. Kirby	Budtha Grove	7,000	90	14	"	10
— Picton	Oakwood	1,400	19	3	"	10
	Currawillnghi	60,000	800	160	"	30
	Muggrie	6,000	122	30	"	3
A. A. McVicars	Eulalie	5,000	96	28	"	3
	Collymongle	80,000	1,280	213	"	30
	Merrywinbone	140,000	2,240	373	"	45
	Mungyer	60,000	960	160	"	25
	Mercadool	80,000	1,280	213	"	25
	Eurie Eurie	40,000	640	106	"	20
	Burren	40,000	640	106	"	20
	Well Station	15,000	240	40	"	8
J. Shearer, senior		5,000	80	13	"	5
J. Shearer, junior		3,000	48	8	"	2
G. Shearer		4,000	64	10	"	5
G. Banks		4,500	75	10	"	16
H. Timmins		9,000	144	24	"	5
King		3,000	48	8	"	5
O'Neill		3,000	48	8	"	3
McDonnell		3,000	48	8	"	2
Hooley		2,400	35	5¾	"	2
Barrett Bros.		4,000	64	10½	"	4
Jackson		2,000	32	5	"	2
D. J. C. O'Connell		6,000	96	16	"	4

Name of owner	Name of Holding	Number of Sheep (approximate)	Number of Bales	Approximate Tonnage	Route	Back Loading
Buttin Bros	Sherwood	4,096	64	10 $\frac{1}{2}$	Narrabri.	4
H M Gair	Habnarey	11,000	176	29 $\frac{3}{10}$	"	10
T Grayson	Bangoi	1,700	27	4 $\frac{1}{2}$	"	2
T Howley	Stony Crossing	5,500	88	14 $\frac{3}{10}$	"	4
J Jennings	Pine Ridge	1,000	16	2 $\frac{1}{2}$	"	1
Robertson and Fiateri		9,000	144	24	"	4 $\frac{1}{2}$
Loughnan Bros	Homebush	20,000	320	53 $\frac{3}{10}$	"	6
— Mcote	Corcoran	2,000	32	5 $\frac{3}{10}$	"	2
	Noondoo					
	Yerranbah					
	Gubbie					
A P Co.'s stations	Bullamon	1,000,000	16,000	2,666 $\frac{1}{2}$	"	160
	Nareen					
	Neeine					
	Dareel					
	Gnoolamon					
	Wilga					
Collarendabri						560
Angledool						560

E. B. Loughnan, J.P.
13 May, 1893.

About 19,000 bales passed over bridge at Collarendabri

About 11,000 bales lie between Collarendabri and Mungyer, extending south to Eurie, Cryon, Gorian, and Burien.

About 4,500 bales lie south west of Collarendabri, at present taking other roads, but certain to drain to

Name of owner	Name of Holding	Number of Sheep (approximate)	Number of Bales	Approximate Tonnage	Route	Back Loading
Collarendabri						560
Angledool						560
	Muckatawa			22,000 sheep		
	Mildool			2,500 sheep		
J F Stinson	Invermay	3,200	51	8 $\frac{1}{2}$	Narrabri	2
T. Clark	Pamalally	6,472	99	16 $\frac{1}{2}$	"	5
— Antill		3,000	48	8	"	1
— Ryan		5,000	80	13	"	2
W. Flexman	Deneford	1,300	21	3 $\frac{1}{2}$	"	2
— Paury		3,000	48	8	"	3
Binne Bros	Naidoo	15,000	250	41 $\frac{1}{2}$	"	10
M Lynam	Summerfield	1,000	16	2 $\frac{1}{10}$	"	1
J. P. M'Donald	Bronte	2,750	44	7 $\frac{1}{10}$	"	2
T M'Donnell	Belltoppe Plains	3,020	48	8	"	2
W Mooie	Cleveland	4,500	72	12	"	2
B Proctor	Abedoar	2,222	32	6	"	2
W Reardon	Clyhe	1,000	16	5 $\frac{3}{10}$	"	1
W. R. Reardon	Airlie	1,000	16	5 $\frac{1}{10}$	"	1
Thos Rolls	Molhe	1,900	31	5 $\frac{3}{10}$	"	1
T H Ruttley	Cryon	1,020	16	2 $\frac{1}{10}$	"	2
Shaw and Sons	Finlea	1,961	32	5	"	2
T Scriven	Cleveland	3,918	64	10 $\frac{1}{10}$	"	3
H G Scott	Collybidgelah	3,366	54	9	"	3
L B Sweet	Numdadool	1,050	16	2 $\frac{1}{10}$	"	2
A G Thorn	Cryon	1,100	17	2 $\frac{1}{10}$	"	1
Jas Tyson	Bangate	74,695	1,195	199 $\frac{2}{10}$	"	20
T. Welsh	Bexley	1,700	27	4 $\frac{1}{2}$	"	1
F Adams	Myambala	5,000	80	13 $\frac{3}{10}$	"	4
Brown Bros	Derruma	9,455	152	25 $\frac{1}{10}$	"	10
Bucknell Bros.	Yarrawa	22,800	352	58 $\frac{1}{10}$	"	10
Chas Dunn	Stanley	2,990	48	8	"	2
Bruce Bros.	Dumindi	4,225	67	11 $\frac{1}{10}$	"	3
M Carter	Melbourne Park	3,106	49	8 $\frac{3}{10}$	"	2
W. Corrine	Plew Eden	1,500	24	4	"	2
T. T. Frupp	Sherwood	2,048	32	5 $\frac{3}{10}$	"	2

Mr B. Benson of Brenda station, in writing to me, says that about 70,000 sheep on the Queensland run, shown in New South Wales, will come this way. I have also letters from managers inside the Queensland country whose statistics are not given in the returns which I have put in. The managers of Manilla and Dungslear state that they will send their wool this way, provided the line is carried through. I may mention that the Sectional Committee inquiring into the Moree line made the following observations—

The Sectional Committee came to the conclusion, that if the whole area of country in this railway question is to be properly served it can only be done by two lines—a northern line following the route submitted to the Committee, and a western line following the driest belt of country, which is apparently south of Thalaba Creek, and eventually reaching Collarendabri. Any attempt to deviate from the direct route, they say, "will entail a permanent disability on the northern trade without conferring a fully compensating advantage on the western trade." They were of opinion, that in view of the importance of the western trade, it would be well if a full exploration and survey should be made of the country towards Collarendabri, apparently the best place to start a survey from, being a point between Narrabri and Edgeroi, thus utilising the bridge which will be constructed over the Namoi on the direct route.

With reference to the statistics I have put in, I may mention that the Merrywinbone return of wool is 240,000 bales. That was the return in the year in which the statistics were obtained. Since that year a great deal of the land has been thrown open, and taken up by selectors. Consequently, there may be a discrepancy between Mr. Langhorne's figures and the statistics.

William Nicholas Wilks, Esq., M.P., sworn, and examined—

6 Mr. Fegan] Do you desire to make a statement? I advocate the proposed line on the same grounds upon which I have advocated other lines in this Electorate. I would suggest that a line be constructed to Collarendabri, to be taken from a point between Woolabra and Narrabri, and go to the Thalaba, and that a line be taken from there to Walgett. If that were done, it would be found that this line, from the figures of Mr Harper himself, would be a paying concern. Mr Harper tells us that if we construct a line from the Moree line to Collarendabri, it will cost £13,000 a year in interest and maintenance. I maintain that if the Walgett line uses 43 or 50 miles of the line, the traffic will help to make that portion

W. N. Wilks, Esq., M.P.
13 May, 1893

W. N. Willis, Esq., M.P.
13 May, 1898.

portion of the line at least pay, and, instead of costing Collarendabri £13,000, the amount would be a little over £7,000. Mr. Harper admits that the traffic would be about £7,190; therefore, in my opinion, the best thing for the State to do, instead of going from Narrabri to Pilliga over useless country, would be to make one line do for the service of the two places up to a certain point, and then to have a branch from the main line into Walgett, and the other to come to Collarendabri. I do not think there can be any question whatever about the line to Collarendabri paying, because it would get a great slice of the Queensland trade, and that, together with the district trade, would more than pay for interest and working expenses. As has been pointed out, we have a radius of 30 miles from the Queensland border, from which wool can come into this Colony free of charge. The proclamation which has been issued does not refer to a man who has sheep running from 50 or 80 miles from the border, but it simply states that a man having a woolshed within 30 miles of the border may send his wool over free. Therefore the sheep may run from 70 to 80 miles from the border, and if they are shorn within a radius of 30 miles from the border the wool can come here free. That is so with the Australian Pastoralists' Company. They shear 1,000,000 sheep, which means 14,000 or 15,000 bales of wool. As six bales goes to the ton that means a big tonnage of Queensland trade coming in to support the Collarendabri line. I say nothing of the wool that would come from Boatman, where they shear 125,000 sheep. The wool would come from that stretch of country along the Baloon to St. George, and then from St. George south, a distance of 40 or 50 miles, to the border here. The fat cattle trade would be very considerable. The trucking of fat sheep would also be considerable. I may point out that there is no legislation which the Queensland Government can pass which can prevent the fat stock of all that big area coming here, simply because the southern border of Queensland is the only possible outlet for the fat stock or store stock of that great Colony. The Dibbs Government, at one time, attempted to put 3d. a head duty on sheep coming over the border to help to pay for the grass they ate off our travelling stock routes, and for the damage they did to the people of this country; but there was a great outcry in Queensland about it. The papers pointed out that it was their only outlet to New South Wales. Again, if Federation eventuates the line will be the main trunk line to Queensland, and will tap all the great St. George country. The fat stock alone, off a station like that of the Australian Pastoralists' Company, would, if they had railway facilities, amount to 10,000 fats and 100,000 fat sheep. That means a carriage of about 2,000 trucks, which, at £8 a truck, would bring in £16,000. It might be argued by certain officials, that the fat sheep do not come off there. My reply is, that the reason they do not come off there is, that they will not run the risk of taking them far to a railway station. It may be asked, why do not these people send their stock to the Queensland market? My reply is that the Queensland market is simply a sort of financial "death-trap" for a man to send stock to. There is no market there at all. Five thousand or 6,000 head of sheep is quite sufficient for one sale there. They only have a little tinpot market, and the prices do not reach the prices obtained in the Sydney market by at least 1s. or 2s. a head, simply because in the Sydney market we have meat-preserving companies operating, and if the market is flooded at any time, and they see a chance of buying a few thousand sheep at a low rate, they come in and operate. I notice that the Sydney Meat Works the other day bought 26,000 sheep in one day. If that can be done with the Sydney meat market why not with Newcastle, where we have a good scaboard, and where we would save so much extra carriage. It has been pointed out at different times that this country will not be great until we have a better system of export by chilling, freezing, tinning, and canning, and that sort of thing. Why not make the great city of Newcastle, or some of its suburbs, a depot for receiving, killing, and treating this stock, so that large ships may come and take it away to feed the people to whom meat is a luxury. I maintain that the extra trade we would get from Newcastle alone would make the line a paying concern, and should be an inducement to the Government to build it. As has been pointed out, the settlers about here are in a thriving condition. They pay high rents, and deserve some consideration. Another thing which would induce a lot of the Queenslanders to send their wool here is this: that the railway carriage of the wool in Queensland is quite 30 per cent. more for the same distance than it is in New South Wales. Then you have to take it off the trucks, put it into boats, and send it to Sydney. There is no wool market at Brisbane, and the idea of shipping it direct from Brisbane is simply fallacious, because they cannot get the tonnage of vessels there. If vessels go there it is to deliver a portion of their cargo, and then they go back to Sydney or Melbourne to load up. I read the other day of a deputation which waited upon Mr. Byrnes, and which pointed out that large ships would never go to Brisbane until proper wool sales were established. A suggestion was made that they should try and establish wool sales there. They might try, but in my opinion if we build railways of the description under consideration we should simply place further obstacles in their way, as they have always done with us. I should like to emphasise the word "woolsheds" which appears in the proclamation which has been read. The proclamation says:—"Any person having woolsheds within a radius of 30 miles." That, in my opinion, was done to meet the cases of the Australian Pastoralists' Company, and Mr. Tyson, and other persons who have stations 50 or 60 miles from the border, but whose woolsheds are close to the border.

7. Are there any grazing farms taken up in that part of Queensland? Yes; a great number by New South Wales people, and a lot more are to be opened up in September. They have millions of acres of pretty good land there, and it is to be thrown open. There is a lot of the Australian Pastoralists' Company's land to be thrown open too.

8. It might mean that in the event of settlement increasing very largely out there, they will take advantage of the proclamation, and a sort of central shearing-shed might be established amongst them within 30 miles radius? That could be done. What is done now is this: they wanted to charge me up to £1 per ton for the carriage of my wool from Yarmouth station, only 28 miles from Wyandra railway station, the first section of the Charleville-Connamunna line. I put the sheep on the road and brought them into Culgoa, shored the sheep there, scoured the wool, and sent the sheep back to grow another fleece. I did that for two years until they charged me a reasonable rate. But what would be done in nine cases out of ten would be this: one of a family from here would go over there and select, and work the two places conjointly. In my opinion, if the New South Wales Parliament is alive to the interests of the country, this £2 10s. a ton duty on wool cannot last much longer. The people of Queensland are sick of it. It is a short-sighted policy, and if the spirit of retaliation once gets hold of the New South Wales Parliament it will put a border duty of £1 a head on the horses and cattle coming over, and a duty of 3d. per head on their sheep, and allow it to remain until the £2 10s. duty on wool is removed. Again, a great deal

deal of merchandise, such as fencing wire, iron, &c., would come this way, because this is the natural point to which it must come. The people about Angledool, for instance, prefer dealing with the Sydney merchants, because the terms and the goods are better. People who live about here and trade in New South Wales are loath to do business in Brisbane, where—I speak from experience—business is lop-sided and congested. Queensland being a Protectionist country, it would not interfere with the railway carriage of the goods, because these goods would be bought in bond and sent over the border, and the duty paid at these various places. I may say that the tonnage of goods coming into the country to be opened up in the same way as that country has to be opened up—in and about St. George, the Baloon, and those places—would be very considerable. They want fencing wire, galvanized iron, timber, nails, and that sort of thing to improve their places.

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9. Have you anything to say of the probable traffic coming over the Queensland border to the Collarendabri railway? No; but I know the stations which would be affected. You might start from the Finger-post and take in the Australian Pastoralists' Company's stations; thence to St. George, or a little bit north of it, taking in Boatman; thence strike a line east about 50 miles from St. George, and then back to the border. I think the trade of the whole of that area would come here.

10. You rely on a certain district to feed the line, and you say that retaliation will make the Queensland Government remove the border duty of £2 10s. per ton on wool, or stop the Queensland stock coming here? Yes.

11. Then if it has the latter effect the stock of the district would cease to come here? They could not go anywhere else.

12. Would not a duty of 3d. per head stop them coming here? It could not. It would simply have the effect of bringing the legislators of Queensland to a sense of their duty, by inducing them to abolish the border wool duty, and allowing the trade to go into its proper and natural channel—to Collarendabri. In other countries, if there is a dispute as to border tariff, the authorities simply meet and discuss it, and come to some proper understanding; but we have done nothing. We have allowed people to be penalised with a £2 10s. border duty, and not tried to help them. Sir George Dibbs did impose a charge of 3d. a head on sheep, but it was not done in a spirit of retaliation, nor had it anything to do with the £2 10s. border duty. I have no fear with regard to the £2 10s. border duty, because Mr. Byrnes was never very sweet upon it. It was Mr. Mathieson, the Railway Commissioner, who suggested it, and it was passed by the Government of Mr. M'Ilwraith. I think the matter only requires to be put before the Queensland Government, and they will take the duty off. At any rate, even with a charge of 3d. per head on sheep, I maintain there will be sufficient coming this way to make the line pay.

13. *Chairman.*] What extent of country would the district you have described embrace? About 6,000,000 acres.

14. How many sheep would that run? I think there are more than 2,000,000 sheep upon it now.

15. What would 2,000,000 sheep clip in tons? They ought to clip 30,000 bales, which, at 6 tons to the bale, means 5,000 tons.

16. Then you think Queensland will furnish 5,000 tons of wool to the railway? I think it will furnish every bit of that, and it will also furnish fat stock. I should like to emphasise what has been said by Mr. Benson, of Brendah, in his letter to Mr. Loughnan. Mr. Benson points out that sheep running in Queensland are shorn in New South Wales, and that is what would happen all along the border.

17. *Mr. Fegan.*] Do you think the Brenda station wool would come to Collarendabri? That station may send its wool this way. Of course, I could not say. I know that if there is a railway to Brewarrina the distance for the wool to travel will be shorter.

18. Upon the supposition that the wool is shipped direct to England will that traffic come to Collarendabri? If you take the mileage and distance into consideration, I do not think it would come here. It would not come here if there were a line to Walgett or to Brewarrina—at any rate it is a matter of only 400 or 500 bales, and it could not make much difference in the calculation. I maintain that Brewarrina would get the trade west of the Narran, and over the border right up to the doors of Connamunna, Woodgeagoowara, and Gundaleer. I maintain that if there were a line to Brewarrina it would get all the Queensland trade right up to the doors of the Connamunna line, so to speak.

19. You think then that the route the Committee were suggesting last night should be adopted? I think the suggested route, which was pointed out last evening by the Members of the Committee, not only the most advisable to serve both towns, but, in the interests of the country, it is very desirable. It would save about 50 miles of construction, which means about £130,000 of the taxpayers' money.

John Theodore Merry, storekeeper and hotelkeeper, Angledool, sworn, and examined:—

20. *Mr. Hassall.*] How long have you resided at Angledool? Twenty-two years.

21. Have you heard the evidence of Mr. Loughnan? Yes.

22. Do you corroborate what he has said? I have not gone into the statistics carefully. I am in a better position to corroborate the evidence given by Mr. Willis as to the traffic which would result from the construction of a line to Collarendabri.

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23. Can you corroborate his evidence with reference to the strip of country along the Queensland border over which sheep would be driven to be shorn, thus taking advantage of the proclamation of the Queensland Government? Yes. I should not have been disposed to go as far as Mr. Willis has done in including country 80 or 100 miles from the Queensland border, but I was not aware of the fact that the railway rates in Queensland, as compared with those in New South Wales, were so high. Had I known that, I should have been in a position to state that under any circumstances, even if the rates had been on a similar scale to those of New South Wales, the whole of the traffic within a radius of 50 miles of the border would be brought to Collarendabri, which is its natural destination.

24. As a resident of Angledool will you state your reasons why you support the construction of a line to Collarendabri? When Sir John Robertson was in power he took an active interest in the extension of the main trunk line to Collarendabri. Although he may not have gone to the expense of having a survey made, an estimate was made of the probable cost of construction. He strongly favoured the construction of the line at that time, and a petition containing 1,000 signatures was drawn up in favour of it. Owing to the death of Sir John Robertson the construction of the line remained in abeyance. I may say that I have not the slightest interest in a foot of land in Collarendabri, nor have I any business in connection with

- J. T. Merry. with the town, but I look upon the matter from a national standpoint. I take it that there is no railway which could be constructed on such advantageous terms as an extension of the proposed line, with the ultimate object of making it an intercolonial line. The Queensland Government are pushing their lines south, and if it had not been for the unfortunate dispute as to the point from which the railway should be started to connect St. George, one would have been constructed years ago—so I am informed by Mr. Storey. That gentleman has called the people together, and has asked them to come to some decision as to the point from which they would like the line to start. I believe they have now joined forces, and in a short time the line will be at St. George. If the proposed line is constructed to Collarendabri it could be run with advantage towards the Queensland border—say 25 miles on this side of Angledool; and then it would form a main trunk line to the metropolis of Queensland. At the same time it would intersect equally good country as that which exists between Collarendabri and Woolabra.
25. What is the character of the country between here and the point on the Queensland border which you mention? In the biggest flood which has ever been known here you could go over it with a pair of horses and a buggy without touching any water which would inconvenience you. The high ridges can be traversed in any weather. With regard to the fertility of the country, and the closer settlement which would follow the construction of a railway, I may say that, whilst the construction of the line would be of great advantage to the Australian Pastoralists' Company, you will get no evidence from that quarter in favour of it. They see that the advantages that they would obtain from the extension of the railway, and the cheaper freights for their wool would be more than counterbalanced by the enormous amount of settlement which would take place on the enormous pastoral area they have at command. It is more than these men dare do to come here and give evidence in favour of the construction of the line, notwithstanding the immense benefit it would be to them. The land is of a fertile description, and I have no doubt that 10,000 or 20,000-acre blocks would soon be converted into 2,000 or 500-acre blocks if the railway were close to the place. With regard to the probability of growing wheat, I may mention that up to 1884 it cost Eurimbah station £1,600 for forage alone, which means the conveyance of many tons from Narrabri. On one occasion a heavy rain came on, and I saw as fine straw growing in the middle of the track as I have seen in any part of the country. The exact distance between Walgett and Collarendabri is 50 miles.
26. Do you think the pencilled line on the map running from the green line to Merrywinbone would serve the people of Walgett as well as of Collarendabri? Yes, that is if you contemplate running a line to Walgett as well.

Thomas John Sherwin, grazier, Nullawa, sworn, and examined:—

- T. J. Sherwin. 27. *Chairman.*] Where is Nullawa? Within 9 miles of the Queensland border.
- 13 May, 1898. 28. How long have you been a resident of the district? I first crossed the Barwon in 1863 to form the Nullawa station. I have been a resident of the backblocks ever since. I would point out that the Queensland railways are not powerful railways, and they have to charge higher rates for goods and wool than we do. Therefore, if New South Wales came into competition with them she would always get the produce which Queensland would otherwise get if her railways were run on the same terms as those of New South Wales. Again, the fact has to be taken into consideration that the Queensland people wish their wool to go, not only to the best market, but to the best port, where they can obtain competition with regard to freights. I contend, therefore, that even the Queensland people living some distance over the border would prefer to send their wool to Collarendabri, securing thereby the advantage of the Newcastle port for direct export to England, and also securing the advantage of a much larger wool market in Sydney than they would obtain in Brisbane. During the last few weeks there has been a proposal to hold wool sales in Brisbane; but I cannot imagine that anyone within a radius which would enable them to send their wool to Collarendabri, and so get to Newcastle or Sydney, would think of sending their wool to a port like Moreton Bay. After consideration of the port, road, and railway carriage, and the market, I have come to the conclusion that Mr. Willis is not far out in his statement with regard to the area of Queensland traffic which we are likely to get. That traffic, however, may be affected by the Queensland authorities by railway extension in the future. I may mention that the Australian Pastoralists' Company and the Australian Land, Mortgage, and Finance Company are large sheep-owners in this district. They and the Peel River Company export their wool to England for sale. They do not sell in the colonies, and you can, therefore, readily understand that they prefer to ship from Newcastle, because they thus save the steamer or the railway freight from that place to Sydney. With regard to the evidence of Mr. Merry, I may mention that in 1882 Sir John Robertson sent word to the people of Collarendabri to the effect that they ought to agitate for a railway, because he believed that this would be the shortest route to the Queensland border. Mr. Plunkett came into the district and went round with a petition, and I believe he obtained 1,000 signatures. I never knew till the other day that that petition, over which so much trouble was taken, was, owing to Mr. Plunkett's negligence, never presented at headquarters. If there is a direct line from Walgett, as shown by the green line on the plan, and another strikes off at the 310-mile point to Merrywinbone, it will lessen the cost of construction to two given points, namely, Walgett and Collarendabri, and you would have half a line common to both places.
29. Do you desire to express an opinion with regard to the country on the south side of the Namoi? Yes. One of my objections to the line to Walgett has been that the Walgett people have always tried to get a line from Narrabri *via* Pilliga. I have always opposed that, because I think it would be a very expensive line, and there would be no return from it. You would run through brigalow scrub and some of the worst country to be found in New South Wales.
30. Have you any information with regard to the seasons and floods? I can go back to 1863. In that year, when I crossed the Barwon, the drought of 1862 was breaking up. The Barwon was running continuously during 1863 and until the big flood of 1864. In 1865 and 1866 there was a dry period. In 1867 there were floods, but of no great importance. In 1868 there was a severe drought; in May, 1869, the drought broke up, and we had a continuance of wet weather during that year and 1870, when there were fair floods, but not as much as to interrupt traffic. In 1871 the floods were over a considerable portion of the country. The same remark applies to 1872. In 1873 there were high floods again. In 1874 it got dry again, and that state of things continued until 1878. In 1879 the drought broke up and there was a high flood. In 1880 and 1881 there was neither flood nor any particular dryness. In 1882 there was a fair season—not very wet and not very dry. The same thing occurred in 1883, 1884, 1885, and 1886. In 1887 there was a wet winter with freshes down the river. In 1888 there was a short sharp

sharp drought. 1889 was a fair dry season, and then came the big flood of 1890. 1891 was another year with floods. At Angledool it was within 8 or 9 inches of the flood of 1890. In 1892, 1893, and 1894 there was no flood. 1895, 1896 and 1897 were very dry years.

31. Since 1863, then, there have been five periods in which floods might have interfered with railway earthworks? That is so.

32. You cannot say anything about the question of interference? No, because as a rule these floods do not last for any length of time.

33. Is the water still? Yes. I do not think it would affect embankments.

34. According to your statement the country is under water once in seven years, and the water is either still or going away slowly? Yes.

35. Under those circumstances it would not sweep the banks away, but would crumble them? I think so. I might emphasise what Mr. Willis has said as to the stock which will come to Collarendabri if the railway is constructed. The people have been unable to send cattle across the border for some time, but as soon as the tick plague is subdued immense quantities will come over. I do not think we can realise the number of fat stock which would be likely to come to the Collarendabri railway if the tick were not a combating influence. I can endorse what Mr. Willis has said with regard to the travelling stock. We cannot travel stock from the Narran to Narrabri and keep them in anything like fat condition, because they lose so much on the road. On one occasion I started sheep from the Narran, and when I saw them at the Flemington yards I did not recognise them, because of their poor condition. The Australian Pastoralists' Company have country extending from Angledool to the other side of St. George. The whole of that side of the country belongs to them, and to show how they avoid the £2 10s. border duty, I may mention that they have a scouring plant at Dareel, which is within the 30 miles radius. They can shear their sheep and carry their wool to the scour, from which it is carted by teams to Narrabri for shipment to Newcastle. The Australian Pastoralists' Company also have a station at Eurimbah, part of which is in Queensland and part in New South Wales. There is nothing to stop that company from bringing the whole of their sheep from above St. George to a station at Eurimbah and shearing the whole of them in New South Wales, so as to secure access to the port of Newcastle. I think we have rather under estimated than over estimated the wool we should get from Queensland.

T. J.
Sherwin.
13 May, 1898.

John Augustus Robertson, Currawillinghi, sworn, and examined:—

36. *Chairman.*] Where is Currawillinghi? Part of the station is in Queensland and part in New South Wales.

37. How do you get to it? *Via* Angledool.

38. *Mr. Fegan.*] Do you corroborate the evidence of Mr. Sherwin? Yes.

39. Do you wish to add anything to it? I may mention that, although the Queensland Government imposed the £2 10s. a ton duty on wool crossing the border, it still came this way.

40. From how far north? Certainly within the 30 miles radius. The Government tried by means of the duty to force the wool upon the Queensland Railways, but they did not manage it, for every bit of it came to this part of New South Wales; this being its natural outlet.

41. How long have you been in the district? Nearly sixteen years.

42. *Chairman.*] If the £2 10s. border duty did not prevent wool coming, *via* Collarendabri, to Narrabri, the removal of that duty must extend the limit from which the wool will come in the future;—did every landholder within the 30 miles limit send his wool this way? I think so.

43. *Mr. Fegan.*] Did any pastoralist within the 30 miles limit send his wool any other way? I do not think so.

44. Seeing that the duty does not now apply to a certain area, do you think it will be the means of extending the area from which the wool will come to New South Wales? Yes.

45. To what extent? I think the Doondi station would send its wool this way. I do not think that even a railway to St. George would prevent the traffic coming this way, because they would have such a long haulage—500 miles to Brisbane—and the wool would also require a lot of extra handling at Brisbane.

46. From how far north would the wool come to Collarendabri? I should think 50 miles over the border; that is 20 miles beyond the radius of 30 miles.

47. Where do you get your stores from? Sydney.

48. What does it cost you for the carriage of stores from Narrabri? £3 10s. a ton. We have paid as high as £35 a ton; that was in the 1883 or 1884 drought. We have frequently had to pay as high as £10 a ton.

49. What is the average for the last five years? About £7 a ton.

50. Would £2 10s. carry a ton of wool over the border into Queensland, a distance of 125 miles? I do not think so.

51. What would it cost you to get from your place to St. George? I can only give an answer in general terms. From Currawillinghi to St. George—100 miles—a ton of wool in my opinion would be carried for £2 10s.

52. Where do you send your wool? To Newcastle. It is shipped from there to England.

53. How many sheep have you? For the last four years I have averaged about 70,000.

54. What is the weight of your clip? The average for the last five years, including scoured and greased, has been 60 tons.

55. What is the average weight of your fleeces? About 7 lb.

56. What is the extent of your holding? About 160,000 acres. I run about 2½ acres to the sheep.

57. How much scoured wool do you send down? In 1893 there were 144 tons 14 cwt., including about 7 tons of scoured. In 1894 there were 151 tons of scoured, and 13 tons of greasy. In 1895 there were 175 tons of greasy, and 11 tons of scoured. In 1896 there were 149 tons of greasy, and 6 tons 16 cwt. of scoured. In 1897 there were 138 tons of greasy, and 5 tons 18 cwt. of scoured—an average of 160 tons 9 cwt.

J. A.
Robertson.
13 May, 1898.

Daniel Joseph O'Connell, selector, near Collareendabri, sworn, and examined :—

D. J.
O'Connell.
13 May, 1898.

58. *Mr. Hassall.*] How many acres do you hold? 10,000, under family selection.
59. Can you corroborate the statements which have been made before the Committee? I do not know much about the northern side of the Barwon, but I can corroborate what has been said with regard to the country over which my knowledge extends.
60. Do you know anything about the rates of carriage from Narrabri to Collareendabri? Yes; it costs me £3 a ton for the carriage of wool from Narrabri, and £2 10s. for back loading. I have paid as high as £5 a ton.
61. Can you get back loading for £2 10s. a ton if you do not send wool in? Yes; that is when they are coming out for wool.
62. Do you know the country between Pian Creek and the Thalaba? I know the country between Cryon and the Thalaba—that is, the Mercadool country.
63. Can you describe the character of the country as shown in the neighbourhood of the pencilled line on the plan, running from the "green line" to the "red line"? Yes; all the Merrywinbone and the Mercadool country is splendid country.
64. Is it flooded or is it comparatively dry? Back from the Thalaba Creek it is dry. Along the southern side of Thalaba Creek I have never seen a flood during my experience—that is, since 1891. I have been in New South Wales for fifteen years. I came from Riverina, where I had been farming on the Broogong. The same rainfall which we get there, where we grow splendid crops, also falls here. I believe we can grow equally as good crops here as there. I know of a man there who in a dry year cut 12 cwt. of hay to the acre.
65. What is the character of the soil at Mercadool? Black soil.
66. Do you look upon the red country as better than the black soil for cultivation? In Riverina the ridgy country was considered the best, but the crops headed the best on the black soil.
67. What is your experience of the carrying capacity on this part of the country? The first year I shored as many as 10,000 sheep. I find it is too expensive to travel a few sheep to a railway station, but if a railway were within a reasonable distance I should be able to truck them in small lots.

Joseph William Cook Langhorne, grazier, Oreel Station, sworn, and examined :—

J. W. C.
Langhorne.
13 May, 1898.

68. *Chairman.*] Where is Oreel station? Twenty miles east from Collareendabri.
69. What is its area? Including leasehold and secured land, about 70,000 acres.
70. What are you running upon it? I shear 70,000 sheep.
71. Do you send to Narrabri? Yes. The freight is £2 10s. a ton.
72. How long have you been in the district? Altogether, since 1875. I have been on Oreel station for fourteen years.
73. Is the evidence of Mr. Sherwin with regard to freights and seasons correct? Yes.
74. Have you heard the evidence which has been given as to the traffic from Queensland which is likely to seek Collareendabri as a centre? Yes.
75. Do you regard it as correct? Yes.
76. Mr. Willis considers that the area will extend further over the border than does Mr. Robertson? I should be inclined to agree with Mr. Willis as far as the 30 miles radius is concerned, and sheep will be brought 60 or 70 miles beyond it.
77. You think Collareendabri will be likely to obtain the products of Queensland for a distance of at least 100 miles beyond the border? Yes; that is my view of the matter.
78. Do you regard the Barwon as valueless for water carriage? Yes; it is out of consideration altogether.
79. Have you had an opportunity of seeing the line marked on the plan? Yes.
80. Do you think it will suit the country? I think so, if it is practicable.
81. Have you any doubt about its practicability? I have.
82. Do you think the pencilled line running from the "green line" to the "red line" passes over flooded country? No; I think the flooded country would be nearer Woolabra, coming from Boolcarrol. I do not think there would be any difficulty after that.
83. In your opinion the only serious difficulty is contiguous to Boolcarrol? Yes. I have seen the Namoi water out there across the Narrabri-Bulyeroi road.
84. Do you think the country with the Barwon on the west, the Namoi on the south, and the watercourse country on the north will eventually grow cereals? Yes; in my opinion, in a few years, the whole country will be under crop.
85. Will you describe the country over the last 10 miles of the proposed railway into Collareendabri? Four miles out from the Grawin the country is subject to flood. It is not what you would call a swamp—the natural warrambools, of which there are three well defined, and another not so clearly defined. They are quite sufficient in all ordinary times to carry the water off. Only on two occasions have I seen them connected right across—that is, between the Grawin and where you leave the timber. The country between the Grawin and the Barwon has only been under water to my knowledge twice—1890 and 1893. After you get across the Grawin there is no danger whatever of flood.
86. Is it still water? It is. Before the warrambools below Collareendabri run at its head the water will be backed up 10 miles. Therefore it is back water which is mostly in the warrambools, and must therefore be still.

Alfred Blomfield, homestead lessee, Mount Brandon, near Collareendabri, sworn, and examined :—

A. Blomfield.
13 May, 1898.

87. *Mr. Fegan.*] What area do you hold? I have 10,000 acres of homestead lease and two selections, with a full area of 640 acres with conditional leases attached.
88. How long have you been in the district? Twenty-five years.
89. Do you use your land for pastoral purposes? Yes.
90. Have you tried the cultivation of crops? Yes; I have tried oats, wheat, and barley.
91. With what result? I have obtained a good crop generally every third year.
92. What do you call a good crop? About 2 tons of hay to the acre.
93. How many acres have you tried? Not more than 4 this season, and I have now 12 acres in.
94. What is the capacity of your run? About 3 acres to the sheep.
95. Do you think 7 lb. is a fair average to the fleece? It is a very good average, but in a bad season it is rather too high an average. A fair average is about 6½ lb.

96. How many sheep do you shear? About 6,000. The wool goes to Narrabri, and thence to Sydney. A. Blomfield.
 97. Where do you get your stores from? Sydney.
 98. What does it cost you to take wool to Narrabri? Three shillings per cwt. 13 May, 1898.
 99. Do you know the country in the neighbourhood of the pencilled mark on the plan? Yes.
 100. Do you agree with what Mr. Langhorne has said about it? Yes; I agree that the Boolcarrol end is low, but there is country between the Namoi and the Barwon which thirty years ago was the main track from Walgett to Narrabri. It followed the red ground from Walmar up to the other side of Oreel.
 101. Do you think that route would suit the people as well as a route direct from Narrabri? It would suit the country better. It would tap an immense area of country, and would reduce the cost of both lines.
 102. Do you agree with the evidence of Mr. Sherwin with regard to the floods? Yes. I may mention, however, that we had a flood in 1876, but it was all Queensland water, and it was next in height to the 1864 flood.

William Reed, selector, Collarendabri, sworn, and examined:—

103. *Mr. Hassall.*] How long have you been in the district? Thirty-eight years. When I first came here there was no settlement in the district. The country was held in large areas, and was principally devoted to the grazing of cattle. I was a stockman at Mogil Mogil when I first came here. As time went on the form of occupation was altered from cattle to sheep, and now the district is practically a sheep district, and cattle-stations are few and far between. It was not until the Land Act of 1861 that any selections were taken up. Since then, as the country has been made available for selection and settlement lease, it has been taken up rapidly. W. Reed.
 104. What area do you hold? Two selections of 240 acres, and I have 140 acres under lease. I may state with regard to the country through which the proposed line is surveyed that the railway would follow the highest land in the district, and would be more out of flood reach than it would be if it followed any other route. I was at Collarendabri during the 1864 flood. The water was just over the ground on the plain upon which Collarendabri is now situated. The School of Arts is the highest ground in Collarendabri, and it was slightly covered. 13 May, 1898.
 105. Do you know how far the water extended on the other side of the river? It extended a long way. In some places it went out as far as the Grawin. The next highest flood was in 1890. There was also one in 1870, and another in 1876. The 1890 flood, however, was not so much on the other side of the river, because the Meehi water did not come down. It is only when the Barwon is very high and the Meehi water comes down that we have to fear a very high flood.
 106. Do you know the country towards Angledool? Yes. The 1890 flood extended beyond the big warrambool. The road from Collarendabri to Angledool, along the travelling-stock route, and crossing the big warrambool, is as high as any other portion of the country.

John Charles Humphries, journalist, Collarendabri, sworn, and examined:—

107. *Chairman.*] How long have you resided in the district? Twenty-five years, with one or two short intervals. J. C. Humphries.
 108. Is there any point in the evidence which you desire to emphasise? I should like to state that in the flood of 1879 I left Moree to come to Mogil Mogil. Coming down the Meehi, about 30 miles from Mogil, I had to turn back, because the flood-waters were so high that I was not able to proceed. Mr. Frank Adams at that time was living at Willowlee, and I asked him how I could get to this side of the river, and if there was any possibility of getting across to Mungindi. He said there was no chance at all. On the day that I arrived at Adams' place I had to swim about $\frac{1}{2}$ of a mile across warrambools and creeks. There was no dry land at all. Mr. Adams advised me that my best plan would be to go back to Millie and come down on the Collarendabri side of the Meehi. I was practically hemmed in between the Meehi water on the one side and the Barwon water on the other. Acting on Mr. Adams' advice, I went back to Millie. I came from Millie down to Thalaba Creek, almost over the line along which you now proceed from Collarendabri to Woolabra. I came down without any trouble at all. I crossed the Grawin in a punt. There was no flood-water on that route which would prevent me travelling. I mention these two routes to favour the Woolabra line as against the line which has been suggested from Moree to Collarendabri, or from Moree to Collymongool. I came along the line from Woolabra to Collarendabri, whereas I had been compelled to turn back for a distance of 30 miles when traversing the route from Narrabri to Collymongool. 13 May, 1898.
 109. Do you know the country south of the proposed line from Woolabra to Collarendabri? Seven or eight years ago I made a number of inquiries with reference to that line, and in some of the articles I wrote to the papers I suggested that that would be a good way of connecting Walgett as a branch line from Narrabri to Collarendabri.
 110. Did you hear the evidence of Mr. Sherwin? Yes, and I agree with it. I also agree with the evidence of Mr. Robertson with reference to the Queensland trade. I think Mr. Robertson has, if anything, underestimated the distance in regard to the trade which we will get from the other side of the Queensland border.

Frank Adams, grazier, Myambla, sworn, and examined:—

111. *Chairman.*] Where is Myambla? On the Meehi, about 16 miles north-east from Collarendabri. F. Adams.
 112. *Mr. Fegan.*] What area do you hold? About 9,000 acres, divided between myself and my brother. 13 May, 1898.
 113. What number of sheep do you run? About 5,000.
 114. Where do you send your wool? To Narrabri, and thence to Sydney.
 115. Can you describe the country from Wee Waa to Collarendabri? I think from Narrabri to Wee Waa there would be a good route for a line. From Wee Waa towards Collarendabri there is flooded country, but I do not know how much there is of it.
 116. Do you think the country is good enough to warrant the construction of a line to connect Collarendabri with the main line? Yes.
 117. What does it cost you to convey your wool to Narrabri station? £2 10s. a ton. The return goods cost about £2 a ton.
 118. What is the capacity of your run? Five or six sheep to the acre.

David Hynes, station-hand, Collymongool, sworn, and examined:—

- D. Hynes. 119. *Mr. Hassall.*] How long have you resided in the district? I have known it for thirty-three years.
 120. Do you see the pencilled line on the plan running from the "red" to the "green line"? Yes. I may say I have been across from Merrywinbone, through Cryon, into Wee Waa. Four miles from Merrywinbone a good deal of water comes down. Thence it is dry all the way to Cryon. I have been along there with cattle during a couple of floods, and I experienced no trouble. Travelling from Cryon there is nothing to stop you as far as Wee Waa.
 121. Then you look upon that portion of the country as fairly trafficable in almost any condition of weather? I do, excepting in big floods.

F. Ludlow and W. Pearse. Frederick Ludlow and William Pearse, without being sworn, corroborated, in all general principles, the evidence which had been given.
 13 May, 1898.

MONDAY, 16 MAY, 1898.

[The Sectional Committee met at Millie at 4 p.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

The Sectional Committee further considered the proposed Railway from Woolabra to Collarendabri.

John Hannon Murphy, Jews' Lagoon, sworn, and examined:—

- J.H. Murphy. 122. *Chairman.*] Where is Jews' Lagoon? Ten miles from Millie towards Boolcarrol, or about 26 miles from Woolabra.
 123. What area of land have you? Twenty-one thousand acres, including a lease held by my son.
 124. How many sheep have you? Between 15,000 and 16,000.
 125. Do you cultivate anything? No.
 126. What does it cost you to get your stuff to Woolabra? I generally send to Narrabri, which is 40 miles away, and the cost of carriage is about 1s. 3d. a cwt. Generally, however, I use my own teams. The charges fluctuate.
 127. What is the nearest point of any railway to your home? Woolabra.
 128. Does the surveyed line go close to your place? It goes through part of my children's land—4 miles away.
 129. Do you approve of the construction of the proposed line? Yes.
 130. What advantage would it be to you? A year or two ago the Government deprived the public of the main travelling-stock route, and handed it over to Edgeroi station. The result was that we have practically no road at all. I have fat lambs which I could send to Sydney by rail, but if I were to drive them to Narrabri West they would not be fit to forward. If the line were constructed people could send thousands of sheep to Sydney.
 131. Would you grow any crops if the railway were constructed? Eventually we might. With good seasons the country would grow anything. My opinion is that a better paying line would not exist; there will be a large amount of settlement on both sides of it. On Mungyer and Oreel and district over 200 families are settled.
 132. *Mr. Hassall.*] How far is your place from Boolcarrol? About 9 miles.
 133. *Chairman.*] What is the return freight from Narrabri? It depends on the season; a fair average will be £2 10s. per ton.
 134. Does your wool go to Sydney? Yes; to Newcastle by train, and thence by steamer to Sydney.

Roger Boland, selector, Anglefield, sworn, and examined:—

- R. Boland. 135. *Mr. Fegan.*] What is the area of your holding? 2,300 acres.
 136. What will the district carry as a rule? I think it is under a sheep to the acre.
 137. How many sheep do you run? About 2,000.
 138. Where is your nearest railway station? Woolabra, which is 21 miles away by the present road.
 139. Where do you send your wool? To Narrabri, from which place it is taken by train to Newcastle, and thence by water to Sydney.
 140. What does it cost you to send your wool to Narrabri? It has been carried for the last two years at £1 per ton.
 141. What do you pay for your return goods from Narrabri? About 25s. per ton.
 142. Then it costs you more for return goods than for what you send from here? Usually; but that is not the average price.
 143. Is it usual for a carrier to charge more for a return load? As far as my experience goes it is.
 144. What is the average you are paid per ton? About 30s.
 145. What had you to pay whilst the Carriers' Association was in existence? About £2 10s. a ton. During the last two seasons the wool has been carried for £1 per ton.
 146. What is the average weight of your fleeces? About 6½ lb.
 147. How is your place watered? By tanks. There is no bore nearer than Woolabra and Bulyeri.
 148. Has boring been tried? No.
 149. Has there been any agitation for one? Yes; at a point about 10 miles from here.
 150. Do you think there is any possibility of bores being a success in this district? I think they would be.
 151. What is the reason the agitation to which you have referred has not been successful? It could not be successful until the passing of the Artesian Wells Act.
 152. Is the soil good enough to grow wheat or hay? Not generally. The land does not seem to be suited for agriculture. I may state that there are large settlements to the north and north-west from Millie,

Millie, and all their wool would be loaded at a siding in the vicinity of Millie if the proposed line were constructed. The fact of there being closer settlement in the locality means that there will be a great quantity of back loading. Commencing at Millie to a point about 17 miles north-west—Minna Minane—there are altogether about twenty holders, occupying about 70,000 acres of land, which has a carrying capacity of about 55,000 sheep. They give upwards of 900 bales of wool, or 130 tons.

153. Is any of that area under cultivation? No; there are also to be made available in the near future about 12,000 acres on Minna Minane and Cumbadalong.

154. When land is thrown open in this district, is it usually well applied for? A larger number apply than there are holdings for.

R. Boland.
16 May, 1898.

Alexander Donaldson, manager, Bunna Bunna Holding, sworn, and examined:—

155. *Mr. Hassall.*] How far is Bunna Bunna from Millie? Twenty-five to 30 miles west.

156. What is the area of Bunna Bunna? 130,000 acres. It carried 82,000 sheep. The wool is carried to Narrabri, and is sent from there, *via* Newcastle, to Sydney. Generally a man contracts to take it to Narrabri, the rate to which place is 2s. per cwt. The back loading costs 1s. 6d. per cwt.

157. Are there many settlers on Bunna Bunna? There are a good many on old Bunna Bunna. Any land made available is eagerly competed for. I can corroborate the evidence of Mr. Boland. I think the construction of the proposed line would be a great benefit to the country.

158. What description of stock are generally sent in? Principally sheep; I frequently send 15,000 away per annum. They are generally trucked at Narrabri. I also truck about 1,200 bales of wool per annum.

159. Do you look upon this as a good, sound sheep country? Yes; it is very free from disease, and it is admirably suited for settlement.

A. Donaldson.
16 May, 1898.

Charles John Hamilton, selector, Moomin, sworn, and examined:—

160. *Chairman.*] Where is Moomin? Twelve miles from Millie in a northerly direction.

161. How far are you from the proposed line? About 14 miles.

162. How far are you from the Moree line? About 20 miles.

163. What is the area of your holding? 2,800 acres. My brother, however, has three selections, and altogether I represent 12,000 acres.

164. What does the country carry? About a sheep to 1½ acre.

165. Are you cultivating anything? No.

166. Have you any intention of doing so? Yes. I think the country will grow hay, but I do not think it will grow wheat.

167. Are you on the plain country? Partly.

168. Where do you draw your stuff at present? Last year we took it to Gurleigh siding, 26 miles, and paid £1 a ton. If I went straight across from my place the distance would be 20 miles, but the charge per ton would not be reduced. Although the railway would save me 6 miles carriage, its construction is not quite so vital to me as to others; but in my opinion it would be a good line to construct in the interests of the district and the Colony. I have heard the evidence of Mr. Boland and Mr. Robertson, and I can corroborate it.

C. J.
Hamilton.
16 May, 1898.

John Herbert Duff, selector, Millie, sworn, and examined:—

169. *Chairman.*] Have you heard the evidence of Mr. Boland, Mr. Donaldson, and Mr. Hamilton? Yes.

170. Do you believe their evidence to be correct? Yes.

171. What is the area of your holding? A little over 3,000 acres.

172. Where does your wool go to? To Narrabri, and thence to Sydney by train and boat.

173. Do you wish to add anything to the evidence which has already been given? No, excepting that the construction of the line would save road carriage to those in the district.

J. H. Duff.
16 May, 1898.

Thomas Joseph Boland, selector, near Millie, sworn, and examined:—

174. *Mr. Hassall.*] I believe you are one of the family of six brothers? Yes. We hold adjoining selections. We have 8,000 acres near Millie, and 5,000 acres at Mulgyer. We depasture about 7,000 sheep.

175. Do you corroborate the evidence of Messrs. Roger Boland, Duff, and Hamilton? Yes.

176. Have you anything to add on your own account? No.

T. J. Boland.
16 May, 1898.

Robert Cameron, selector, Pidgee Pidgee, sworn, and examined:—

177. *Mr. Fegan.*] Where is Pidgee Pidgee? Sixteen miles from Millie.

178. What is the area of your holding? I and my brothers hold 5,000 acres.

179. How many sheep do you run upon it? About one sheep to the acre, although at present we have 8,000 sheep upon it.

180. Where do you send your wool? To Sydney, *via* Narrabri.

181. How many miles is your holding from Narrabri? Fifty.

182. What do you pay for carriage? £2 a ton, and the same for back carriage.

183. How far is the proposed railway from your holding? It runs through it. I have a statement in regard to the holdings from Waterloo Creek extending into Boolcarrol Station—J. H. Murphy, Jews' Lagoon, 20,000 acres and 200 bales of wool per annum; C. Macfarlane, 4,000 acres and 40 bales of wool; James Duff, 11,000 acres and 200 bales of wool; J. Frazer, 2,000 acres and 24 bales of wool; Philip St. Wilson, 8,000 acres and 100 bales of wool; Cameron Bros., 5,000 acres and 70 bales of wool; D. and D. Cameron, 6,500 acres and 50 bales of wool; M. F. Fingleton, 5,000 acres and 50 bales of wool; J. Small, 5,000 acres and 50 bales of wool; G. R. Watson, 3,500 acres and 40 bales of wool; J. and J. Hunt, 3,500 acres and 40 bales of wool; Jacob Hunt, 2,560 acres and 30 bales of wool; W. Hunt, 1,280 acres and 20 bales of wool. I should like to mention that the holdings farthest west have often brought their wool this way when the river water has been out on the Knowley-road.

R. Cameron.
16 May, 1898.

- R. Cameron. 184. What distance is the furthest holding from Boolcarrol? Twenty miles. I contend that there is a necessity for the railway to be constructed because near the stations west the ground is flooded, and it is impossible for the produce to get to Narrabri by any other way but Millie. I may state that a settler named Watson has put 30 acres of wheat under crop this year.
- 16 May, 1898. 185. Has he grown wheat previously? No; but he has grown hay and got very heavy crops.
186. Where is Mr. Watson's holding? About 23 miles from Millie. I may state that he grew a few acres of corn last year.

John Vaughan Wilson, selector, Thalaba, sworn, and examined:—

- J. V. Wilson. 187. *Mr. Hassall.*] How far is your holding west of Millie? Twelve miles. I hold 8,000 acres, carrying about 8,000 sheep.
- 16 May, 1898. 188. Can you corroborate the evidence of Mr. Cameron? Yes.
189. Where do you send your wool? To Narrabri; thence to Sydney by Newcastle or Morpeth; the rate of carriage is about 2s. per cwt. each way.
190. Do you know the country lying west? Yes; right down to Collarendabri.
191. Do you look upon the country further west as being as good as your own? About the same.
192. Were you here during the flood of 1890? Yes; I lost a number of sheep during that flood.
193. Is much of the country to which reference has been made low-lying? No, not much of it.
194. Does that road between here and Collarendabri follow the highest ground? I think so, with the exception of the Tiber, 12 miles from here.
195. What is the greatest depth of water you have ever seen there? About 2 feet.
196. How far is it from your holding to Woolabra? It will be 28 miles when the direct road is opened.

1898.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

PARLIAMENTARY STANDING COMMITTEE ON
PUBLIC WORKS.

REPORT

TOGETHER WITH

MINUTES OF EVIDENCE, APPENDIX, AND PLAN,*

RELATING TO THE

PROPOSED RAILWAY

FROM

MAITLAND TO TAREE.

Presented to Parliament in accordance with the provisions of the Public Works Act,
51 Vic. No. 37.

Printed under No. 2 Report from Printing Committee, 6 July, 1898.

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APPENDIX.

Sworn statement by Thomas Dykes, Cooperbrook.

PLAN.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

RAILWAY FROM MAITLAND TO TAREE.

REPORT.

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS, appointed during the first Session of the present Parliament, under the Public Works Act of 1888, 51 Vic. No. 37, the Public Works Act Amendment Act of 1889, 52 Vic. No. 26, and the Public Works (Committees' Remuneration) Act of 1889, 53 Vic. No. 11, to whom was referred the duty of considering and reporting upon "the expediency of constructing a line of railway from Maitland to Taree," have, after due inquiry, resolved that it is not expedient the proposed railway should be constructed; and, in accordance with the provisions of sub-section (IV) of clause 13 of the Public Works Act, report their resolution to the Legislative Assembly:—

DESCRIPTION OF THE PROPOSED RAILWAY.

1. The proposed railway, which is regarded officially as a section of the North Coast Railway, and is 113 miles 66 chains in length, leaves the Great Northern line at 20 miles 47·24 chains from Newcastle and about half-a-mile north of West Maitland Station, and, proceeding northerly, it crosses the Hunter River about 4 miles from its junction with the Paterson River, and follows up the valley of that river until it reaches the township of Paterson. There the Paterson River is crossed, and the line continues its northerly course to about 40 miles from Newcastle in the parish of Fingal, where the direction becomes north-easterly, and, after passing over the Wallaroba Range, Dungog is reached. At Dungog the Williams River is crossed, and, at between 59 and 60 miles from Newcastle, the railway, still maintaining a north-easterly direction, surmounts the Monkerai Range and proceeds to the Karuah River. Crossing this river the direction of the line changes to almost due north, and continues so to Avon Station, 96 miles from Newcastle, and thence down the Avon Creek and Gloucester or Barrington River, past the township of Gloucester. The Gloucester River is followed to near its junction with the Manning River, which is crossed at about 112¼ miles from Newcastle, near Wingham, and the line, keeping on the north side of the Manning, passes through the township of Wingham to Taree, where it ends at a distance from Newcastle of 134 miles 33·24 chains. The heaviest grades on the route are 1 in 60, and the sharpest curve 12 chains radius. As the country is intersected by several ranges and rivers, six tunnels and a good many large bridges are required.

THE NORTH COAST RAILWAY—HISTORY OF THE PROPOSAL.

2. As far as the records of the Department of Public Works show, the North Coast Railway was first advocated in September, 1882. The necessity for constructing a line of railway from Maitland to Morpeth northwards was urged upon the then Minister for Works, and approval being given to a survey between both Maitland and Morpeth and Taree a survey was commenced in 1884, and completed in 1886. In the latter year the Minister for Works was again interviewed on the subject of the railway, and a promise was given that the matter should have full consideration and

and be laid before the Cabinet, the Minister at the same time expressing the opinion that if a railway were made it would to a great extent obviate the necessity for spending large sums of money in keeping open the entrances to the North Coast rivers, although they would, no doubt, have to be kept open to some extent. No further step in regard to the railway appears to have been taken until 1889, when an exploration of the surveyed line was made with a view to improving it where desirable. The following year the Acting Engineer-in-Chief for Railway Construction forwarded to the Minister a report in which he pointed out that the North Coast Railway seemed naturally to fall into three sections:—

1. From the main North Line to the Manning.
2. From the Manning to Coff's Harbour.
3. From Coff's Harbour to Grafton.

With regard to No. 1 section, the surveys made follow two main routes—(a) which starts from Morpeth, and proceeds *viâ* Seaham, Bulladelah, and Larry's Flat to Wingham; (b) which starts from Maitland, *viâ* Paterson, Dungog, Gloucester, and Larry's Flat to Wingham. The (a) route, it was explained, might be cheaper than route (b), but there were serious objections to it. The Hunter would have to be crossed at a point where it is navigable, and the traffic would be blocked unless an open bridge were built; river traffic at Seaham would be interfered with for the same reason; and the country generally which the line would pass through is poor, with only a few small patches of good land. On the other hand, (b) route starts from West Maitland, and would cross the Hunter above navigation; the rivers generally along the route would be more easily crossed than those on the (a) route, and navigation upon them would not be interfered with; and generally the (b) route was preferable. A revised survey of this route was then carried out, and an estimate of cost prepared, this amounting to £1,378,925.

In 1891 the Railway Commissioners were asked to report upon the project, and they did so, to the effect that the matter had been carefully inquired into, and there appeared to be no prospect for many years of the line proving remunerative. At this point the proposal rested until October, 1892, when it was again brought under the notice of the Minister for Works; but it was not until 1897 that any further definite action was taken by the Minister. In September of that year, verbal instructions were given to the Engineer-in-Chief for Railway Construction to prepare estimates, &c., with a view to obtaining another report from the Railway Commissioners; and the estimate of 1891, for the first section of the line, Maitland to Taree, having been revised, and reduced to £982,283, the Railway Commissioners reported, and the proposed railway was referred to the Public Works Committee.

RAILWAY COMMISSIONERS' REPORT.

3. The Railway Commissioners' Report is dated 24th November, 1897, and they do not recommend the line. Their estimate of the annual cost is £49,468—interest on capital expenditure at 3 per cent. £29,468, and cost of maintaining permanent-way and traffic and locomotive expenses £20,000; and the traffic estimate is £18,000—live stock and goods £10,000, and coaching and mails £8,000. The difference between cost and earnings is £31,468.

The question of the proposed construction of the line, they say, was most carefully considered by them. They personally went over the greater portion of the route and visited the surrounding country, and not only had the benefit of exhaustive information placed before them by local residents at the various centres, but in addition had obtained reports from their officers upon the traffic and other matters bearing upon the prospects of the line.

In estimating the probable revenue it has been necessary, they state, to give special consideration to the effect of the water competition which would be encountered throughout the greater portion of the district to be served by the railway. "It is true," their report states, "that the water service is at times somewhat precarious, and there is a generally expressed opinion among the residents that it is not satisfactory; yet it must be fully recognised that freight charges and fares are, as a whole, even now much less than those which could be quoted in connection with the proposed railway, and would, no doubt, be considerably reduced if such a course became necessary to retain the traffic." Notwithstanding

Notwithstanding the advantages attached to regularity and speedy transit by rail, as compared with the present water route, the Commissioners feel satisfied that the bulk of the produce of the district would remain with the steamers. "For perishable freights," they say, "such as cream, butter, fruit, poultry, &c., and stock—particularly calves and pigs—the advantage of quick transit by rail would probably operate largely in favour of that method of carriage, and a liberal allowance has been made in this connection in estimating the revenue"; but as regards the supply for general merchandise to the district, there is no reason to assume that it will be diverted from the steamers, except perhaps to the extent of some low-freight goods.

With regard to passenger traffic, the Commissioners state that it is doubtful whether it would be largely secured, the steamer fares generally being now considerably less than could be charged by the railway. "As with the goods," the report states, "there will be the advantage of regular and speedy transit, and in addition the opportunity of avoiding the discomfort of a sea-voyage; nevertheless, it cannot with any degree of safety be assumed that the passenger traffic would be generally secured." Briefly summarising the question, the Report proceeds:—"It may be stated that the districts would be vastly benefited by the facilities usually afforded by a railway, but the traffic generally would only go to it when water carriage could not, with advantage, be made use of. This has been the experience in connection with all other lines where water competition exists.

ESTIMATED COST.

4. The estimated total cost of the proposed railway for a single line only, tunnels and large bridges to be constructed accordingly, is £982,283, or an average of £8,629 15s. 4d. per mile. By dividing the line into three sections it is found that the most expensive portion is that between Gloucester and Taree, a length of 41 miles 43 chains, the average cost per mile of which is £9,784 6s. 4d. Next to this is the section, from West Maitland to Dungog, 32 miles 63 chains, the average cost per mile of which is £8,440 13s. From Dungog to Gloucester, 39 miles 40 chains, the average cost per mile is £7,572 12s. 8d. The estimate for earthworks in the three sections is £331,874 19s.; for large bridges, £126,007; for culverts and timber bridges, £96,655 11s. 6d.; and for tunnels, £58,625.

THE COUNTRY THROUGH WHICH THE RAILWAY WOULD GO.

5. A previous paragraph describes the route of the railway. It is necessary, however, to describe also the class of country through which the line is located.

Adjacent to the Hunter River, around Maitland, the character of the country is so well known that it requires no description in detail. An outlet for the produce of the Maitland district is already provided for by the Hunter River and the Main Northern Railway.

After leaving the alluvial flats at Maitland, and proceeding towards the River Paterson, the country, although considerably improved by occupation, and containing occasional belts of good land, cannot be regarded as other than second-class grazing country. On the Paterson, although there are good flats suitable for cultivation, they are limited in area; much the greater portion of the country consists of hardwood ridges. Taking the country as a whole, the same description applies, for all general purposes, to the land in the neighbourhood of the Williams, Karuah, Avon, and Gloucester Rivers. In places the flats widen out sufficiently to form good agricultural areas, but in many others rough hardwood ranges extend right down to the banks of the rivers and creeks. In the vicinity of Gloucester there is a fair area of both agricultural and pastoral land. Between the hills there are, in places, narrow brush valleys; but, generally speaking, the country as a whole, from the Hunter flats to the Manning River, excepting the alluvial flats on the banks of the rivers and creeks previously mentioned, may be described as land not likely to be sought after, nor such as will give an adequate return for the expenditure of labour. Evidences of cultivation and genuine settlement away from the river flats are infrequent. In addition to this the line, for about 50 miles, passes through the estate of the Australian Agricultural Co.; and, with regard to the intentions of the company respecting this land, and the question of devoting it to other purposes than that to which it is at present put, it is impossible to form
OTHER

OTHER MEANS OF COMMUNICATION.

6. For the first 12 miles from Maitland, as far as Paterson, the country may be regarded as served by the Great Northern Railway. At Paterson the river of that name furnishes sufficient depth of water to enable river boats to trade there from Newcastle, and even if the proposed railway were constructed the possibilities of water-carriage between Paterson and Newcastle are such that it appears very probable that the river boats would prove successful competitors against the railway line.

Dungog, which is a centre of some importance, finds its outlet at present by about 14 miles of road-carriage to Clarencetown, from which place the Williams River is navigable for river boats sufficiently large to deal fairly well with the present produce of the district. Such freights might be charged on the railway as would attract to the line a portion of the trade of Dungog and of a considerable district lying up the Williams and its tributaries; but in the opinion of the Committee, neither in this instance nor in that of Paterson, even if the trade were obtained, would there be sufficient to justify the construction of the line.

Stroud, the next centre contiguous to the railway, finds its chief outlet by way of Booral Wharf, on the Karuah River, about 12 miles of road-carriage connecting the township with the wharf, from which there is water-carriage to Newcastle or Sydney, *via* Port Stephens. In this case the trade of the place is insignificant, and the competition by water communication such as would be likely to keep the trade from the railway.

At Gloucester, and north therefrom, including the mining district of the Barrington, the road-carriage is sufficiently far to render it probable that the traffic connected with this portion of the country would be obtained by the railway; still, after investigation, the Committee are of opinion that the amount of such traffic would be too small to justify the construction of a railway through a large tract of privately owned and unproductive country, a very great proportion of which is not possessed of those qualities necessary for speedy and profitable development.

Krambach, a settlement distant about 25 miles by road from Gloucester towards the Manning, is separated from the surveyed railway route by a considerable distance of broken country; but even with the railway adjacent to the settlement it is probable that almost the whole of the produce of the district would still go to market by the route at present adopted, which is by road 10 miles to Bullock wharf, on the Wollumba River, and thence down that river, *via* Forster and Cape Hawke, to Sydney. Droghers drawing 6 feet of water can load at Bullock wharf, and improvements are in progress which eventually will enable light-draught steamboats to proceed up the river.

From the Manning River itself a consideration of the rates likely to be charged on the railway, compared with the present cost of ocean transit, makes it clear that the main portion of the produce of the district will continue to find its way to the metropolis by water, as it does at present.

Although the line referred to the Committee terminates at Taree, it is regarded primarily as a portion of the North Coast Railway. The Committee, therefore, en route to Port Macquarie, made inquiries with regard to an extension of the line northwards from the present proposed terminus. Except along the rivers and creeks, the country, as far as the Macleay, may be regarded as inferior for either agricultural or grazing purposes, and although there are magnificent forests of timber, which, for many years, will probably be the source of the main exports from the outlying portion of these districts, there are already in existence for this traffic cheaper means of transit than could be offered by a railway.

In addition to what has already been said of the manner in which the trade requirements of the various centres between Maitland and Taree are served, it may be mentioned that the Government are spending £5,000 on harbour works at Camden Haven, and that a dredge is clearing the Camden Haven River as far as the crossing of the Northern Road, at which place, in the near future, there will probably be a permanent depth of water in the river of about 6 feet. This will provide an outlet which will enable the water-borne traffic from the district to reach Sydney so much more cheaply than it could be conveyed by the proposed railway, that it is hopeless to expect that the railway, if constructed, would be much used.

It may be mentioned that the roads throughout the district are excellently maintained.

INDIFFERENCE

INDIFFERENCE REGARDING THE RAILWAY.

7. During the visit of inspection and inquiry which the Committee made along the route of the proposed railway, a feeling of indifference on the part of a large proportion of the residents of the districts traversed was very pronounced. Only at Dungog, Gloucester, and the towns on the Manning was any particular interest shown in the matter; and, at Taree, it was admitted that the line could not be expected to pay unless it were regarded as a section of the North Coast Railway, and the railway as a whole were constructed. At some places presumed to be interested, it was difficult to find witnesses who cared to take the trouble to come forward and give evidence on the subject. Everywhere the estimated cost of the line excited astonishment at its magnitude, and it was generally admitted that a railway upon which so large an expenditure would be incurred could not possibly for many years be expected to pay; though at the same time it was suggested that the prospects of the line would be improved if it were extended beyond Taree. Even on the Manning the most that could be said in its favour was that it would be used by the farmers and other shippers of produce for perishable goods. All other goods, it was admitted, would go by water, which is by far a cheaper route than the railway. Passengers to Sydney, it was stated, would be much more numerous than they are now, from the fact that the uncertainty of the trips by water and the discomforts of the voyage deter many from going; but it was not proved to the satisfaction of the Committee that the passenger traffic on the railway would be considerable, and it was evident that it could not be regarded as sufficient to justify the construction of the line. When asked which was the more desirable, or the more important to the district, the railway or the improvement of the Manning entrance, the residents of the river were unanimously of the opinion that the improvement of the water communication with Sydney was the work more urgently required and likely to be the more beneficial.

THE COMMITTEE'S RECOMMENDATION.

8. The Committee are of opinion that the proposed railway should not be constructed, for the following reasons:—(1) Because the country as a whole along the route is not capable of profitable development; (2) there are means of communication already in existence for conveying the produce of the various portions of the districts concerned to market at lower rates than could possibly be charged by the railway; (3) the large expenditures proposed at the entrances to almost all the waterways will further improve the present means of transit; and (4) the population to be served along the route, which is somewhat distant from the road and water communication available, is comparatively unimportant.

RESOLUTION PASSED.

9. The Committee have passed the following resolution:—

“That, in the opinion of the Committee, it is not expedient the proposed Railway from Maitland to Taree, as referred to the Committee by the Legislative Assembly, be carried out.”

THOS. EWING,
Chairman.

Office of the Parliamentary Standing Committee on Public Works,
Sydney, 6 July, 1898.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

MINUTES OF EVIDENCE.

RAILWAY FROM MAITLAND TO TAREE.

TUESDAY, 22 FEBRUARY, 1898.

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee proceeded to consider the expediency of constructing a Railway from Maitland to Taree.

Robert R. P. Hickson, Under Secretary and Commissioner for Roads, Department of Public Works, sworn, and examined:—

1. *Vice-Chairman.*] Do you desire to submit any statement to the Committee? Yes; I have prepared a statement for the information of the Committee, which I will now read:—

R. R. P.
Hickson.

Department of Public Works, Sydney, 1 February, 1898.

22 Feb., 1898.

NORTH COAST RAILWAY.—SECTION, WEST MAITLAND TO TAREE.

As far as our records show, this line (*i.e.*, the North Coast Railway) was first advocated in September, 1882, when Mr. Young and other Members of Parliament urged upon the then Minister for Works, Mr. Lackey, the necessity for constructing a line from Maitland or Morpeth northwards. The Minister approved of a survey being made, and the portion between both Maitland and Morpeth and Taree was commenced in 1884 and completed in 1886.

On 17th June, 1886, a deputation consisting chiefly of Members of the Legislature waited upon Mr. Lyne and asked that arrangements for the construction of the North Coast Railway might be hurried on. The deputation represented in strong terms the extent and fertility of the districts through which the proposed line would pass, and the isolation from the metropolis and from suitable markets of the large population was condemned. Many of the farmers, they said, could find no suitable market for their produce in consequence of the rivers, their only present means of conveyance, being closed by bars, and it was no uncommon thing to see thousands of bushels of corn rotting on the wharfs because there was no means of carrying it away. The deputation further stated that there was a large extent of cedar brush and good valuable land which only required communication with a market to render it capable of sustaining a large population. In support of their representations, the deputation quoted certain statistics from which it would appear that the line right through to Grafton would tap districts containing an area of 16,060 square miles and a population of 51,782 souls.

Mr. Lyne, in reply, said it seemed to him that if a railway were made it would, to a great extent, obviate the necessity for spending large sums in keeping open the entrances to the rivers although they would, no doubt, have to be kept open to some extent. The Minister concluded his remarks by stating he would gladly recommend any railway that would pay and afford facilities to producers, and that he would give full consideration to the matter and lay it before his colleagues.

No definite step appears to have then been taken, but in the meantime there appears to have been considerable controversy as to the question of route, and in July, 1889, Mr. T. R. Firth, Assistant Engineer for Railways, was deputed to make an exploration of the survey line with the view to making any improvements in same.

Mr. Deane (Acting Engineer-in-Chief for Railways), in forwarding this report for the Minister's information (27th February, 1890), stated that the North Coast Railway seems naturally to fall into three sections.

1. From the Main North Line to the Manning.
2. From the Manning to Coff's Harbour.
3. From Coff's Harbour to Grafton.

With regard to No. 1 section, which is now before the Committee, the surveys follow two main routes, *viz.* :—

- "A" which starts from Morpeth and proceeds *via* Seaham, Bulladelah, and Larry's Flat to Wingham.
 "B" Which starts from Maitland *via* Patterson, Dungog, Gloucester, and Larry's Flat, and Wingham.

With regard to these routes, Mr. Deane pointed out that, although the construction of "A" may be cheaper than that of "B," there are serious objections to it, *viz.*, that the Hunter must be crossed at a point where it is navigable, and the traffic would be blocked unless such an objectionable structure as an opening bridge were built; river traffic at Seaham would be interfered with for the same reason; and the country generally that the line passes through is poor, with only a few small patches of really good land. On the other hand, "B" route starts from West Maitland and crosses the Hunter above navigation; the rivers Paterson, Hunter, Williams, and Karuah are crossed more easily than on "A" route; and navigation is not interfered with, &c. "B" route was therefore in general direction recommended for adoption.

The revised survey of "B" route was commenced in September, 1890, and completed in June, 1891, and following is an estimate of it which was prepared by Mr. Deane in September, 1891.

Section 1. West Maitland to Dungog, length, 32 miles 63 chains; estimated, cost £382,869, or £11,677 per mile.

Section 2. Dungog to Gloucester, length, 39 miles 40 chains; estimated cost, £419,519, or £10,621 per mile.

Section 3. Gloucester to Taree, length, 41 miles 30 chains 80 links; estimated cost, £576,537, or £13,931 per mile.

Total for whole line, £1,378,925 for a length of 113 miles 53 chains 80 links.

Upon this estimate being submitted to the Minister (Mr. Lyne) he asked the Railway Commissioners to report, and in reply (21 December, 1891) they stated the matter had been carefully inquired into, and a responsible officer had gone over the route proposed, but there would appear to be no prospect of a line for many years being remunerative.

R. R. P.
Hickson.
22 Feb., 1898.

Nothing further appears to have been done until October, 1892, when a deputation representing all the coastal districts between Sydney and the Queensland Border, consisting of Messrs Young, McKinnon, and other Members of Parliament, waited upon Mr. Lyne and urged the submission of the first section of the North Coast Railway to the Public Works Committee.

Mr. Young, in introducing the deputation, pointed out that all along the North Coast there were large centres of population; that the soil was so rich, and the rainfall so regular, that the coastal districts would make homes for millions of people. He also stated that the transmission of produce by sea was found to be dearer in many cases than it would be by rail where entrance to harbours and rivers was bad, and that under the system which the Minister (Mr. Lyne) was introducing in the Public Works Act—namely, an improved betterment principle—the cost of the line would be small. The deputation thought it would be better for the whole line to be submitted to the Public Works Committee instead of in sections, so that they should see the advantage the line would be to the country, although they did not ask that it should be undertaken at once.

The Minister, in replying, said it must be understood that it would be practically impossible to undertake this line with any probability of completing it under many years. The rough cost of taking it through to Grafton was about 3½ millions. Personally he was in favour of the line; but if it were submitted as a whole he would have to make it clearly understood beforehand that it was submitted as a whole simply to establish the principle of its construction, and that only a certain amount would be spent each year in the construction of the line by degrees, &c. As regards the richness of the soil through which the line would pass, he thought it scarcely worth while to impress that fact upon anyone, as it was generally recognised that the soil was excellent. The principle trouble, Mr. Lyne said, was money; but he promised to consult the Cabinet on the matter.

It was not until September, 1897, that any further action was taken in connection with proposal (although the construction of the line had been repeatedly urged in the meantime) when the Minister verbally instructed the Engineer-in-Chief for Railway Construction to prepare estimates, &c., with a view of obtaining a report from the Railway Commissioners upon the matter.

The estimate of 1891 was revised and the cost reduced from £1,378,925 to £982,283, or £8,629 15s. 4d. per mile, and the papers were thereupon forwarded to the Railway Commissioners who reported as follows:—

Sydney, 24 November, 1897.

Proposed Railway Line, West Maitland to Taree, 113 miles 66 chains.

“In accordance with the provisions of the ‘Public Works Act of 1888,’ section 13, we beg to report as under:—

Cost of Construction—

The Engineer-in-Chief for Construction estimates the cost of a single line of railway (exclusive of land and compensation) at £982,283

Annual Cost—

Capital expenditure at 3 per cent. £29,468
Cost of maintaining permanent-way, and for traffic and locomotive expenses 20,000

Total annual cost £49,468

Traffic Estimate—

Livestock and goods £10,000
Coaching and mails..... 8,000

Total estimated traffic £18,000

The question of the proposed construction of the line referred to has been most carefully considered by the Railway Commissioners.

They have personally gone over the greater portion of the route and visited the surrounding country, and have not only had the benefit of exhaustive information placed before them by local residents at the various centres, but in addition have obtained reports from their officers on the traffic and other matters bearing on the prospects of the line.

In estimating the probable revenue, it has been necessary to give special consideration to the effect of the water competition which would be encountered throughout the greater portion of the district to be served by the railway.

It is true that the water service is at times somewhat precarious, and there is a generally expressed opinion among the residents that it is not satisfactory; yet it must be fully recognised that freight, charges, and fares are as a whole even now much less than those which could be quoted in connection with the proposed railway, and would, no doubt, be considerably reduced if such a course became necessary to retain the traffic.

The regularity and speedy transit by rail as compared with the present water route, and consequent influence on the traffic in the direction of the railway, has been fully weighed; and notwithstanding the advantages attached to the former, the Commissioners feel satisfied that the bulk of the produce of the district would remain with the steamers.

For perishable freights, such as cream, butter, fruit, poultry, &c., and stock—particularly calves and pigs—the advantages of quick transit by rail would probably operate largely in favour of that method of carriage, and a liberal allowance has been made in this connection in estimating the revenue.

As regards the supplies of general merchandise to the district, there is no reason for assuming that it would be diverted from the steamers, except, perhaps, to the extent of some low-freight goods.

With regard to the passenger traffic, it is doubtful whether it would be largely secured, the steamer fares generally being now considerably less than could be charged by the railway. As with the goods there will be the advantage of regular and speedy transit, and, in addition, the opportunity of avoiding the discomfort of a sea voyage; nevertheless it cannot with any degree of safety be assumed that the passenger traffic would be generally secured.

To briefly summarise the question, it may be stated that the districts would be vastly benefited by the facilities usually afforded by a railway, but the traffic generally would only go to it when water carriage could not, with advantage, be made use of. This has been the experience in connection with all other lines where water competition exists.

In view of the large capital expenditure, involving an annual interest charge of £29,468 (which would be increased by the interest on cost of land and rolling stock), and the yearly cost of working, estimated at £20,000, in all a liability of £49,468 per annum, and of the fact that the probable revenue would not exceed £18,000 a year, the Commissioners cannot recommend the construction of the line.

The Common Seal of the Railway Commissioners of New South Wales was hereunto affixed this twenty-fourth day of November, one thousand eight hundred and ninety-seven, in the presence of

<p>H. McLACHLAN, Secretary.</p>	}	CHARLES OLIVER,
		Chief Commissioner.
		W. M. FEHON,
		Commissioner.
		DAVID KIRKCALDIE,
		Commissioner.

The line now proposed begins by a junction with the main Northern Line at 20 miles 47·24 chains from Newcastle, and about half a mile north of West Maitland station. Proceeding northerly it crosses the Hunter River about 4 miles from the junction, and follows up the Paterson River Valley, crossing that river at the township of the same name. From here the northerly course is maintained to about 40 miles from Newcastle, in the parish of Fingal, where the direction becomes north-easterly, and after passing over the Wallaroba Range, Dungog is reached. Here the William's River is crossed, and between 59 and 60 miles from Newcastle the Monkerai Range is surmounted, the north-easterly direction being continued generally to the Karuah River. From the crossing of this river the direction is almost due north to 96 miles through Avon station, and down the Avon Creek and Gloucester River passing the township of Gloucester.

The Gloucester or Barrington River is then followed to near the junction with the Manning River, which is crossed at about 112½ miles from Newcastle, and the north side of this river is taken through the township of Wingham to Taree where the line ends at 134 miles 33·24 chains from Newcastle.

The heaviest grades are 1 in 60, and the sharpest curve 12 chains radius. The country is generally undulating and intersected by several ranges and considerable rivers; hence six tunnels and a good many large bridges are required.

2. *Mr. Hoskins.*] Have you ever been as far as Taree? Yes; I have been along the whole of the north coast up to the Brush.
3. Is the country between Maitland and Taree as rough as that on the South Coast line between here and Wollongong? The country about the rivers is remarkably good, but the country between the rivers is rough.
4. I notice that this report states that there will be a good many tunnels, and there will be four or five rivers to cross by means of bridges; therefore the line will certainly be an expensive one? Yes.
5. I suppose that very expensive and long bridges will be required? Yes; they all cross above the navigable portion of the river, so they are not so large as one might expect, but they are good-sized bridges.
6. It is proposed by this scheme to avoid the navigable portion of the rivers? Yes.
7. Have you been to the port of Taree? Yes.
8. Is the navigation of the Manning at Taree so very difficult that steamers cannot be regularly employed in that trade? The North Coast steamers are regularly employed in that trade.
9. They run regularly, with some interruptions now and then in consequence of bad bars, or occasioned by heavy seas? Fairly regularly.
10. Is not the country, as a rule, between Maitland and Taree not particularly good, except when you get on the flats of the Manning River close to Taree;—it is rather a wild, rough country not favourable for farming purposes? There is very good land about Stroud and Taree and Gloucester, and along the whole of the Manning down to Taree, and there is good land, although it is limited in extent, about Paterson and Dungog, but it is rough country between Dungog and Gloucester.
11. Was not nearly all the land of any value in that tract of country sold years ago, and is it not now in the hands of private owners? Most of the land about Gloucester and Stroud belongs to the A.A. Co.
12. I mean other land? A great deal of it; I could not tell you to what extent though.
13. It is in the hands of private individuals—you can see that from the appearance of it; it has been enclosed? Yes, a great deal of it has.
14. Looking to the limited area of land, except on the Manning River, where it belongs to the A.A. Co., and judging from the quality of the land, and the roughness of the country, there does not appear to be room for the many millions of people who, this statement represents, could be settled on the land if there were a railway there? If the A.A. Co.'s property were cut up, it would carry a very large population.
15. But after all said and done, the land belonging to the A.A. Co. going from Gloucester to the Hunter is not a very extensive tract of country, and going towards Stroud too? It is a large tract of country. I could not tell you the acreage from memory.
16. There is a good deal of land belonging to the A.A. Co. no good for anything? There is some of it good for grazing, but the ranges are not good.
17. Well, having regard to the large area of this Colony and the great quantity of land that has not been alienated, and bearing in mind that the people of the district of the Manning have pretty regular communication with Sydney by water, do you not think that there are other districts that it would be more advantageous in a public sense to supply with railways than this district? I hardly think that is a question I can answer. It is more a matter for your decision.
18. I mean, looking at the physical character of the country, and not the policy? It is a difficult country to make a line over. There is no question about that.
19. Do you know whether the construction of the railway from Sydney to Nowra has led to the diversion of a large quantity of traffic from the steamers trading on the coast to the railway? I could not say to what extent. I know the steamers are running still, but I do not know what the traffic was before the line was opened.
20. Have you been over the South Coast line lately? Not for two or three years.
21. Have you noticed that the construction of that line has led to largely increased settlement of people in that portion of the country served by the railway? I am not prepared to answer that question, for I was never in that part of the country before the line was made.
22. *Mr. Wright.*] Have you been on the Manning? Yes.
23. Can you give the Committee any idea of what proportion of the land is good and what proportion of it is bad along the route of this railway? I cannot tell you that. You will get that information from the Lands Department.
24. I mean, taking the river flats—the arable land along the rivers—and the mountainous country between them;—do you think that 10 per cent. of the whole land is valuable? I should say a great deal more than 10 per cent.
25. And fit for agriculture? Yes; much more than 10 per cent., I think.
- 26–29. What are the intervening ports between Taree and Sydney? Camden Haven and Port Stephens.
30. Is there any kind of port at Camden Haven? It is a very small place, and I think that the amount of land behind Camden Haven is small in area.
31. The land along the Manning River is good? Yes; the land all along that river is good.
32. And there are lakes this side of the Manning River that are navigable? Yes, the Myall Lakes.
33. What river runs into Port Stephens? The Karuah and the Myall.
34. Are they navigable for small vessels? Yes; the Karuah is navigable for small vessels up to Booral, and the Myall as far as Bulladelah.
35. Port Stephens is a good port? Yes.
36. So between the Manning and Newcastle there are practically two ports besides the Manning River itself? Yes.
37. From your knowledge of the country, would you say that the producers of that country have very much difficulty in getting their produce to the market? It is uncertain. As I said before, the North Coast steamers run fairly regular, but there have been times, with bad bars and floods in the river, when the produce could not be got down.
38. It is very unusual for the Manning to be blocked? It is not usual.
39. It is the best river along the coast, except the Clarence River, is it not? Yes, I daresay it is, except the Richmond and the Clarence.
40. So the inconvenience those people suffer in getting their produce to market will not be a very great one? I do not think it is a very great one.

R. R. P.
Hickson.

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41. Can you give the Committee any idea of the freights charged, for instance, from the Manning River to Sydney? I cannot.
42. You have no idea? Not the slightest idea.
43. Would you think 6d. or 7d. a bag for maize would be a big freight from the Manning? I am not in a position to give an opinion upon that.
44. Can you give us any idea what the railway freight would be on this line to the Manning, for instance? No; I leave that to the Railway Commissioners.
45. Is there a large area of good land around Dungog? The land about Dungog is pretty good, but I do not think there is a very great extent of it.
46. And there is not much on the Paterson, is there? Not very much. Along the river it is very good indeed, but I do not think it goes very far back.
47. And after you leave Dungog and get to Gloucester, the country is almost worthless? It is very poor, rough country.
48. And what beyond Gloucester? It is good land, I believe, along nearly the whole route of this line down to Taree; but I have not gone down that portion. I have gone up the road by Krambach. But Mr. Deane has been over that, and can tell you what the land is like along the Barrington.
49. This proposed railway goes to the west of the road? Yes.
50. What is the country west of this line;—is that any good at all? There is not much good land to the west of the line.
51. All mountainous, poor country, is it not? Yes.
52. Is there much good land about Port Stephens? No, not much.
53. How far will the railway be from the navigable waters of Port Stephens—from Stroud, say? A long way—it is on the other side of the range. I could not tell you how many miles it would be as the crow flies, but it will be on the other side of the range.
54. That is Stroud on one side and the railway on the other? Yes.
55. *Mr. Trickett.*] I suppose this line is only put forward as part of a subsequent extension; or is it put forward as a line by itself? It is put forward at present on its own merits.
56. It is a very expensive line? Yes.
57. It would go through a great deal of private property—the A.A. Co.'s, for instance? Yes; it goes through a large portion of private property.
58. Of course the cost of that you have not arrived at in this estimate? No; this estimate is exclusive of resumptions.
59. *Mr. Lee.*] Referring to the figures supplied in the report of the Railway Commissioners, it is stated there that the cost of maintaining the permanent way, and for traffic and locomotive expenses, will be £20,000 per annum? Yes.
60. And that the annual total estimated traffic will be £18,000? Yes.
61. Would it not appear from those figures that if the construction of the railway cost nothing at all, it would not pay to work? Well, the figures speak for themselves.
62. But is that not the case;—the Railway Commissioners estimate the cost of working at £20,000, and the receipts at £18,000; therefore, excluding the interest upon capital—£29,468—the actual earnings of the railway would not pay for the annual maintenance and ordinary expenses? That is so.
63. *Mr. Roberts.*] Do you know what is the population of Taree, Wingham, Cundleton, Croki, Cooperbrook, and other towns through which the proposed railway will pass? I could not tell you off-hand, but I could get the information for you.
64. You know the Manning district well? I know it fairly well.
65. Is there not a large settled population around Taree? On the river there is.
66. Also at Wingham? Yes.
67. And there is a good settled population at Cundleton and at other towns on the river, is there not? There is a fair population at Cundleton. The land all along there is very good.
68. Is not the land all the way from Taree down to the Heads exceptionally good? To very close to the Heads, but at the Heads it is poor land. On the west side of the river it is very excellent land.
69. And around Wingham? Very good land around Wingham too.
70. And Cundleton and Croki;—is not the land in the neighbourhood of those towns exceptionally rich agricultural land? I think that the land along that river is second to none in the Colony, Maitland excluded, perhaps.
71. Do you know anything of the productive nature of the soil there? No; I could not say I do.
72. It has been given to maize-growing for a number of years, has it not? Yes; I believe that is the principal crop.
73. Is not the land admirably adapted for dairying purposes? I am hardly able to reply to that question, but I believe it is.
74. Have you not heard that the dairying industry on the Manning River has of late years made marked progress? It has all along.
75. Do you know Cooperbrook? Yes.
76. Are not large shipments of timber constantly taking place there? Yes; it is a very good timber district.
77. There is exceptionally good land about Cooperbrook, is there not? Very good land.
78. And there is a large settled population, going up the river towards Taree, right from Cooperbrook to beyond Wingham? Yes.
79. Is it not a fact that all this large population in the Manning River District have for many years past carried on their farming operations at great disadvantage, owing to the difficulty in getting their produce to market? Yes; they have had some difficulty.
80. Have you not heard of the steamers being frequently detained at the Heads, owing to the small draught of water on the bar? They are occasionally detained.
81. Only occasionally? I think so. If you take the number of trips they go out as compared with those when they are stopped, I think you will find that it is only occasionally that they are stopped.
82. Have there not been frequent wrecks at the Manning River? There have been some wrecks there.
83. Is it not a fact that the navigation is dangerous to travellers? No; I would not say that it is dangerous. The bar is not a very good one, and it requires a special class of steamer to work it, and the steamer that does work it does so fairly successfully.

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84. But there have been frequent wrecks there? There have been wrecks—there have been wrecks at every bar on the coast.
85. Have you any estimate in your office as to what would be the probable cost of making an absolutely safe entrance to the Manning? That scheme will be before the Committee before very long.
86. Is it a fair thing to estimate roughly that it would cost at least £250,000 to make an absolutely safe entrance to the Manning River? I do not think so.
87. It would cost a very large sum of money to make navigation safe and sure at the entrance to the Manning River? Yes.
88. Seeing the large population settled there, could you tell us—does not the Minister think that those people have a right to some expenditure of the public money to enable them to get their produce to market, they themselves being taxpayers? I think so. If any reasonable scheme can be proposed, I think they have, most decidedly.
89. And if it will cost a very large sum of money to make the entrance safe, it is, at any rate, a debatable question whether it would not pay better to construct a railway? It is certainly debatable.
90. Have you been over the proposed line? Not the whole route. I know most of it.
91. You have been from West Maitland to Dungog? Yes; I know Paterson and Dungog.
92. It is fine farming land about Paterson? Yes; shallow—I do not mean of soil, but towards the hills.
93. For what grain is it best adapted? There are large quantities of lucerne grown there.
94. And then from Dungog to Stroud—do you know the country? I know Stroud, but I do not know the country between Dungog and Stroud—across the range.
95. Is not Stroud one of the oldest settlements in the Colony? Yes.
96. And there is very good land all around Stroud? Yes, very good land all about Stroud and Gloucester.
97. Does this line go to the west of the range? It goes down the Barrington to the west of the range.
98. It is good land on the Barrington? I believe so, but I have not been there.
99. And then this way to Wingham and Taree? Yes.
100. You know the alternative route by way of Seaham? Yes; I know most of that.
101. Which route would be the more fertile one? The proposed one—the one by Paterson and Dungog. The other line goes through an exceptionally rough country.
102. Then there would be difficulties in the crossing of the rivers too? Yes, difficulties about Maitland.
103. Navigation would probably be impeded? Yes. There would be three rivers to cross—the Hunter, the Paterson, and the Williams.
104. Therefore the Department prefers what is known as the “B” route? Yes.
105. There have been several deputations asking for a line from the Hunter to Grafton, have there not? Yes.
106. This may fairly be considered as an instalment of that line, may it not? Yes. As submitted to the Committee, it is complete in itself to the Manning. But there is no doubt that, in time, the line would also extend along the north coast up to Grafton.
107. Have any Members of Parliament representing the districts between the Manning and Grafton recommended the construction of this North Coast railway? Yes, some have; but some further north have recommended a connection with the New England district.
108. That would be north of Grafton? No, from Coff’s Harbour.
109. But anywhere south of Coff’s Harbour they would all favour this North Coast line? Yes, I should say so.
110. You have been from Taree to Kempsey? Yes.
111. You know the entrance to Camden Haven? I have never been down to Camden Haven. I have been in Camden Haven by water from the sea, but never been ashore there.
112. Do any steamers go into Camden Haven? I think so. I am not quite sure about that. I think that one of the small coastal boats calls there sometimes.
113. It is a good farming and timber district around Camden Haven? I think it is a good timber district, but I do not know about farming.
114. You have been to Port Macquarie? Yes.
115. Is there the same difficulty with regard to navigation there as at the Manning? There is more difficulty, because the steamers only get in just inside the bar at Port Macquarie—they do not go up the river.
116. Is the Hastings not so well dredged? It is a shallower river all through than the Manning.
117. The land up the Hastings is remarkable for its fertility, is it not? It is very good land all along the Hastings.
118. And there is a very large farming population settled along that river? Yes.
119. Do you know the distance from Port Macquarie to Taree—about 50 miles? Yes, I think so, as far as I remember. I could get you the exact distance.
120. Is it not a fairly level country all the way from Taree to Port Macquarie? Yes, fairly level.
121. Thence on to Kempsey the Macleay River is one of the best maize-growing districts of the north coast, is it not? It is a very fine agricultural district.
122. There is a very large settled population at Kempsey? Yes.
123. Kempsey is what may be termed a very important town with a large settled population around it? Yes, a very good town.
124. *Vice-Chairman.*] Has there been any very large expenditure on the Manning of late years? There has been dredging going on there for many years—constantly.
125. What is the condition of the bar at the present time? The last accounts from the Manning, 18th instant, give 9 feet on the bar, and 8 feet on the crossing at high water; the steamer draws 7 feet.
126. Have you heard of any difficulties? I do not think there is any difficulty just at present. I think that vessels are going in and getting out all right.
127. Or during the last two years? I would not like to say from memory what the difficulties have been during the last two years, but I can easily get you all that information; it is recorded in the office.
128. Is there not a proposal at the present time under consideration for the expenditure of a large sum of money to improve the Manning River? A scheme for that will be before this Committee before very long.
129. What, approximately, is the proposed expenditure? I could not say. I do not know yet what the estimate will be.

- R. R. P. Hickson.
22 Feb., 1898.
130. In a general way, can you say what is in contemplation? Works something of the same class as at the Macleay, in a general way—training-walls and breakwaters.
131. Involving a very large expenditure? It will involve a considerable expenditure, but the amount of it I am not prepared now to say.
132. In the statement that you placed before us there is a paragraph in the representations made by a deputation some years ago, as follows:—
- Many of the farmers, they said, could find no suitable market for their produce in consequence of the rivers, their only present means of conveyance, being closed by bars, and it was no uncommon thing to see thousands of bushels of corn rotting on the wharfs, because there was no means of carrying it away.
- If such works as you have in contemplation for the improvement of the river be carried out, will that disability exist? It would be very considerably removed, but of course you understand that it will not be totally removed, because there is still the heavy sea to contend with, and there are times when, even at the Clarence—where there is ample water—vessels cannot get in and out. That is due to the heavy sea outside, and that you can never get over. Even at the port of Newcastle, vessels are detained on account of heavy weather.
133. Is this your reply: That the Manning will be placed in an equally good position with any of the other rivers on the coast? With some of them it will be placed equally well—say, with the Macleay or the Richmond.
134. Or the other northern rivers? Yes; excepting the Clarence. I do not think it will be as good as the Clarence.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and examined:—

- H. Deane.
22 Feb., 1898.
135. *Mr. Wright.*] Have you any statement to make further than that submitted by Mr. Hickson? I have a description of the line and also a detailed estimate to submit.
136. Will you kindly read them?

NORTH COAST RAILWAY.—WEST MAITLAND TO TAREE.

(Length, 113 miles 66 chains; estimated cost, £982,283, or £8,630 per mile, exclusive of land and compensation.)

This line begins by a junction with the main Northern line at 20 miles 47·24 chains from Newcastle, and about half a mile north of West Maitland station. Proceeding northerly, it crosses the Hunter River about 4 miles from the junction and follows up the Paterson River Valley, crossing that river at the township of the same name. From here the northerly course is maintained to about 40 miles from Newcastle, in the parish of Fingal, where the direction becomes north-easterly, and after passing over the Wallaroba Range, Dungog is reached. Here the Williams River is crossed, and between 59 and 60 miles from Newcastle the Monkerai Range is surmounted, the north-easterly direction being continued generally to the Karuah River. From the crossing of this river, the direction is almost due north to 96 miles through Avon Station and down the Avon Creek and Gloucester River, passing the township of Gloucester.

The Gloucester or Barrington River is then followed to near its junction with the Manning River, which is crossed at about 112½ miles from Newcastle, and the north side of this river is taken through the township of Wingham to Taree, where the line ends at 134 miles 33·24 chains from Newcastle.

The heaviest grades are 1 in 60, and the sharpest curve 12 chains radius. The country is generally undulating and intersected by several ranges and considerable rivers; hence six tunnels and a good many large bridges are required.

For convenience in making out the estimate I have divided the line into three sections. The first section is from West Maitland to Dungog, the second section is from Dungog to Gloucester, and the third section is from Gloucester to Taree; and then I have a summary of the three, given at the end.

18 August, 1897.

NORTH COAST RAILWAY.—WEST MAITLAND TO DUNGOG.

REVISED estimated cost of a single line of railway 32 miles 63 chains in length, with 71½-lb. rails. Ruling grade, 1 in 60; sharpest curve, 12 chains radius. Tunnel and large bridges for single line only.

Description.	Estimated Cost.	Average per mile.
	£ s. d.	£
Earthworks	78,024 1 0	2,380
Culverts and timber bridges	22,922 1 6	699
Large bridges—No., 3	52,707 6 0	1,608
Over-bridges	1,200 0 0	37
Level-crossings, fencing, and road diversions.....	9,837 10 0	300
Tunnel—No., 1; length, 336 yards	12,139 0 0	370
Permanent-way materials	23,685 16 6	722
Freight, &c.	2,440 12 6	74
Plate-laying at 1s. 3d. = £3,606 12s. 6d.	26,977 10 6	823
Ballasting at 4s. 6d. = £12,983 17s.		
Sleepers at 3s. = £10,387 1s.	7,585 10 0	232
Station works, including sidings, junction, and signals		
Station buildings—waiting-sheds, C, £460; waiting-sheds, H, £260; platforms, £600; station-master's house, £400; goods-sheds and platforms, £655; loading-banks, £700; 20-ton weighbridges, £550; 5-ton cranes, £400; trucking-yards, £820; coal-stage, £150	4,995 0 0	152
Water supply	1,500 0 0	46
Gradient and mileage posts	491 16 3	15
Telegraph	491 16 3	15
Miscellaneous	1,000 0 0	30
Cost of works	245,998 0 6	.....
Engineering and contingencies, 12½ per cent., nearly	30,749 19 6	938
Total cost	£276,748 0 0	.....
Average cost per mile	£8,440 13 0	.....

MINUTES OF EVIDENCE—RAILWAY FROM MAITLAND TO TAREE.

7

18 August, 1897.

H. Deane

NORTH COAST RAILWAY.—DUNGOG TO GLOUCESTER

REVISED estimated cost of a single line of railway 39 miles 40 chains in length, with 71½ lb. rails. Ruling grade, 1 in 60; sharpest curve, 12 chains radius Tunnel and large bridges for single line only. 22 Feb, 1898.

Description	Estimated Cost	Average per mile
	£ s d	£
Earthworks	100,415 10 3	2,542
Culverts and timber bridges	31,020 5 0	785
Large bridges—No, 5	25,173 5 0	637
Over-bridges	600 0 0	15
Level-crossing, fencing, and road diversions	10,523 0 0	267
Tunnel—No, 1, length, 647 yards	23,093 0 0	585
Permanent way materials	28,530 19 0	722
Freight, &c	3,528 0 0	89
Plate laying at 1s 3d = £4,345		
Ballasting at 4s 6d = £15,642		
Sleepers at 3s = £12,513 12s		
Station works, including sidings and signals	32,500 12 0	823
Station buildings—waiting shed, C, £230; waiting sheds, H, £260; platform, £300, station master's house, £200, goods shed and platform, £300, loading banks, £550; 20-ton weigh-bridge, £275, 5 ton crane, £200; coal stage, £150; trucking-yards, £600	3,748 10 0	95
Water supply	3,065 0 0	78
Gradient and mileage posts	1,500 0 0	38
Telegraph	592 10 0	15
Miscellaneous	592 10 0	15
	1,000 0 0	25
Cost of works	265,883 1 3	
Engineering and contingencies, 12½ per cent, nearly	33,235 18 9	841
Total cost	£299,119 0 0	
Average cost per mile	£7,572 12 8	

18 August, 1897.

NORTH COAST RAILWAY—GLOUCESTER TO TAREE

REVISED estimated cost of a single line of railway, 41 miles 43 chains in length, with 71½-lb. rails Ruling grade, 1 in 60; sharpest curve, 12 chains radius. Tunnels and large bridges for single line only

Description	Estimated Cost	Average per mile
	£ s d	£
Earthworks	152,435 8 9	3,670
Culverts and timber bridges	42,713 5 0	1,028
Large bridges—No, 4	48,126 9 0	1,159
Overbridges	1,200 0 0	29
Level crossings, fencing, and road diversions	10,053 15 0	242
Tunnels—No, 4, length, 629 yards	23,393 0 0	563
Permanent way materials	30,006 5 0	722
Freight, &c	4,452 6 0	107
Plate-laying at 1s 3d = £4,569 2s 6d		
Ballasting at 4s 6d = £16,448 17s		
Sleepers at 3s = £13,159 1s		
Station works, including sidings and signals	34,177 0 6	823
Station buildings—waiting sheds, C, £460, waiting sheds, H, £325, platforms, £600, station masters' houses, £400; goods shed and platforms, £600; loading banks, £800, 20-ton weighbridges, £550; 5 ton crane, £400; trucking yards, £300, turntable, £550; coal stage, £150; engine shed, £500; barracks, £1 300	4,020 10 0	97
Water supply	6,935 0 0	167
Gradient and mileage posts	1,500 0 0	36
Telegraph	623 0 0	15
Miscellaneous	623 0 0	15
	1,000 0 0	24
Cost of works	361,258 19 3	
Engineering and contingencies, 12½ per cent, nearly	45,157 0 9	1,087
Total cost	£406,416 0 0	
Average cost per mile	£9,784 6 4	

18 August, 1897

NORTH COAST RAILWAY—WEST MAITLAND TO TAREE

Revised Estimate—Summary

Part	Description	Length	Estimated Cost	Average per mile
		m c	£	£ s d
1	West Maitland to Dungog	32 63	276,748	8,440 13 0
2	Dungog to Gloucester	39 40	299,119	7,572 12 8
3	Gloucester to Taree	41 43	406,416	9,784 6 4
	Total	113 66	982,283	8,629 15 4

H. Deane. I wish to add that the survey of the line passes through 12 miles and 55 chains of Crown land, and 101 miles 11 chains of alienated land. Fifty-one miles of the latter are owned by the Australian Agricultural Co. I have here a summary of the steepest grades, which is as follows:—

SUMMARY OF STEEPEST GRADIENTS.

Grade.	Length against the load.	Length with the load.	Grade.	Length against the load.	Length with the load.
	chains.	chains.		chains.	chains.
1 in 60	521	582·5	1 in 85	46·5	.....
1 in 61	87·5	133	1 in 85·5	14	.....
1 in 62	117·5	.....	1 in 87	33·5	.....
1 in 64	113	.....	1 in 88	62·5	.....
1 in 65	.....	39·5	1 in 89	50	.....
1 in 66	103	98	1 in 90	58	.....
1 in 68	74	20·5	1 in 92	.....	78
1 in 70	69	72·5	1 in 94	.....	72
1 in 72	96	.....	1 in 96	41	.....
1 in 75	45·5	87	1 in 100	106·5	12
1 in 80	154	406·5			
1 in 82	60	54	Total	1,857·5	1,655·5

137. Have you finished your official statement? I have to hand in a revised Book of Reference.

138. Any plan accompanying these? I have a plan of the line in two parts, to a scale of 10 chains to the inch; and the section in two parts, to a scale of 10 chains horizontal and 100 feet vertical.

139. Can you inform the Committee how many private land-holdings there are included in those 101 miles of alienated land? The book of reference will show them. I have not summarised them.

140. I see there are a large number of holders, independently of the A.A. Company? Yes.

141. The A.A. Company hold rather more than one-half of the entire length, and the rest is held by numerous holders? Yes.

142. Can you tell the Committee why this line, in comparison with lines you have recently submitted, is so expensive as to cost £8,629 per mile? The country is entirely different. It is very uneven in character.

143. Is it rugged, or simply undulating country? It is quickly undulating country, for the most part.

144. Much rock? Yes; no doubt there will be in the cuttings a very considerable amount of rock.

145. Have you been over the line yourself? Yes.

146. What would you describe the country as being generally along the route of this railway—I mean for occupation;—is it good, bad, or indifferent? I think that, taking it generally, the country is good. It is chiefly of two classes: the country at the bottom of the valleys—the river flats—which is highly fertile; and the higher ground from those flats up the slopes of the hills, which looks like good pastoral country, which carries, or did carry at the time I went there, abundance of good grass. Then there is a third class of country, which is rugged and covered with timber, and is of a character that is of very little use.

147. How is the water supply of the country? There is plenty of water. We cross several rivers.

148. There is good fresh water all the way? Yes; very good water all the way.

149. Does any portion of the country carry good marketable timber? Yes; nearly all the way along the route you get good timber, especially ironbark, tallow-wood, and white mahogany.

150. All timbers that are merchantable? Yes; very good timbers—first-class timbers.

151. I suppose the ironbark timber occurs on the poorest land—on the ridges? In going through the country, I noticed that the ironbark grew on the best grazing land, and it was by no means what you would necessarily call a poor soil. It was soil that was somewhat shallow, perhaps, but not at all bad in character.

152. Clay? No; generally brown soil, very similar to what you got overlying the shale in some parts in the neighbourhood of Sydney.

153. Decomposed shale, very likely? I think decomposed shale, with a good deal of humus in some cases with washings of decayed basalt and trap.

154. I suppose that all the timber required for the construction of the line could be got on the route? Yes; I am told that a little way back from the line there is any quantity of good timber.

155. Will the line be ballasted all through? Yes.

156. Will you explain to the Committee what necessity there is to ballast a line like this over hard country? In the first place, there is a great difference in the rainfall. The rainfall on the coast side of the Dividing Range is much more frequent, and does much more damage to the cuttings and banks than it does in the interior, and the ground being very uneven necessitates the provision of ballast so as to make up for short inequalities—slacks in the line. We shall use the ballast to keep the line in position—to keep the line true.

157. Would it be possible to construct the line with only a little ballast if you used it only on the banks and let the cuttings remain unballasted? It would not be worth while. The cost of ballasting after all would be such a small proportion of the whole cost of the line that it would not be worth considering. Then again, with regard to leaving out the ballast in the cuttings, that would be very objectionable, because if you put your sleepers right down on the hard rock you would have a hard road, which would be injurious to the locomotives especially and to the rolling-stock generally.

158. You mean, in fact, packing them underneath? You must have an elastic stratum between the sleepers and the formation, and in the cuttings, on account of drainage, you require to lift the road more, or otherwise to make your cuttings wide, and have deeper water-tables. Therefore, as regards drainage, it is as broad as it is long; in fact, it is cheaper to put ballast in cuttings than to widen out the cuttings and make broad ditches.

159. Your main contention why the line should be ballasted is, I understand, on account of the excessive rainfall in the coastal districts? That is one point, and the other point is the unevenness of the country, and the tendency for the permanent-way to settle irregularly, which it does not over low and even banks; and thirdly, as I point out, in the cuttings it is necessary for elasticity.

160. If timber is to be obtained on the ground, and the country is really not of a very serious character, I cannot understand why the expenditure should be so large as it is—between £8,000 and £9,000 per mile? You will see that the earthworks on the first section cost £2,380 per mile, on the second £2,542 per mile, and on the third £3,670 per mile. Then the ordinary small culverts and timber bridges amount to a considerable sum, £699, £785, and £1,028 respectively, and there are large bridges, which cost £1,608, £637, and £1,159 per mile respectively for the three sections. H. Deane.
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161. Yes, I see those items of expenditure are heavy? Then, of course, there are the tunnels.
162. Then there are the rails, the sleepers, and the ballast? Yes.
163. There would be no possibility of reducing this expenditure to any appreciable extent, would there? No; the expense has been cut down to the greatest possible extent. The ruling grade has been made 1 in 60, which, if this line is sometime to be, as it will be, an important trunk line, is quite steep enough.
164. Is that both ways? Yes. And the sharpest curves are 12 chains radius.
165. On that line you could carry almost any traffic? You could carry any traffic.
166. And run at any speed you like? Yes.
167. In designing the railway you have taken into consideration the fact that, if constructed, it will eventually be an intercolonial line? Yes; that it will be a main line, eventually advancing to join with Queensland.
168. And recognising that fact, you are proposing to construct what, in railway parlance, is known as a first-class road? Yes. I may say that it is a first-class road as regards stability. I would prefer for express trains to have something flatter than 1 in 60, and better curves than 12 chains radius.
169. But I suppose that for the local requirements of the district, if the railway were constructed for that purpose alone, you could materially reduce the cost, could you not? I do not think so. I would not recommend it. I think that if the country were really well settled—if it were possible to utilise the country to the largest extent—a line such as has been estimated for would probably pay. Of course the present conditions fall very far short of that.
170. Have you limited your expenditure for station buildings and that class of work? Yes, I put station buildings down to the possible lowest limit, following a principle that has been adopted for some years past, namely, that in the first instance they should be made cheaply, and afterwards as trade develops they can be enlarged to suit.
171. As the line is now proposed, is it provided with all the necessary sidings and roads to stations? Yes. I have had to make various assumptions, of course, as regards the number of stations, because it would be premature to go into the question in detail; but I may say that the assumed number of stations amounts to one in every 10 miles.
172. I suppose you have provided every centre of population with station accommodation? Yes; and every place where an important road comes in.
173. Leaving the future development of traffic to be provided for as it is developed? Yes.
174. Do you think, as a railway man of great experience, that a railway constructed along this line could successfully compete with water carriage along the coast as regards the heavy goods? That I would rather hesitate to express an opinion upon.
175. I am only asking you in general terms; is it not a recognised principle in traffic all over the world that water carriage can successfully compete even against railway-borne carriage for heavy classes of goods? Well, water-borne carriage, of course, is very much cheaper, as a rule, than railway carriage. On the other hand, of course, there are many classes of goods for which water-borne carriage is entirely unsuitable.
176. At all events, you do not profess to give an opinion on the question of carriage? I have not studied that part of the question.
177. Can you give the Committee any idea of the value per acre of the various classes of land this railway passes through, bearing in mind that a great deal of the land is private property? I do not think that I can give even an approximate estimate. The land on the river flats is extremely good and fertile, and no doubt very valuable, whilst the land rising up the slopes of the hills looks to me like very good pasture. It struck me, from opinions that I heard expressed, that that part of the land was very much under-valued—that it was really better than actually was stated. The A.A. Company have about 700 square miles in their grant, and they have a comparatively small number of head of cattle. They use the country entirely for breeding purposes. I daresay that the managers of the property would tell you exactly how many head of cattle there are. But I failed to see Mr. Etheridge at Gloucester. He was ill at the time I passed through, and I was unable to see him, but I believe that something between 8,000 and 12,000 would express the number of the head of cattle on the run. Even if the higher figures—12,000—be correct, it seems absurd that 700 square miles of country should carry only 12,000 head.
178. Your general impression of the land you passed through is that, taken as a whole, it is good land? Yes. The reason why I conclude it is good land—not only the flats, but also the slopes of the hills—is that it carries good kinds of grasses.
179. Well clothed with grass? Yes; and not wiry stuff, but grasses that are recognised by the Department of Agriculture as of high value.
180. Good nutritious grasses? Yes.
181. Can you tell the Committee from memory if, along the route of this railway, there are many subdivisions, suburban township allotments, and small holdings—if it cuts them up very much? At Paterson and Dungog, the line passes through small holdings, and at Wingham too; but I do not suppose that on that account the total cost would be very largely affected.
182. Are there not small holdings in the shape of farms about these river flats which are intersected by the proposed line? I think I should have to go into the matter in detail in order to answer that question.
183. You are not in a position to supply the information just now? By comparing the plan with the book of reference it can easily be done.
184. Will you furnish the Committee later on with the number of holdings through which the line passes, and divide them into areas—holdings of less than 20 acres which are cut up by the line? I think I probably can.
185. *Mr. Trickett.*] In 1891, I see you gave an estimate of the cost of this line at £1,378,925, as against £982,283 to-day, or a saving now of £396,642;—can you explain the difference? It is partly due to a revision of location, but chiefly due to the reduction of prices that has taken place within the last ten years.
186. Chiefly owing to the reduction of prices of labour and material? Yes.

- H. Deane. 187. Is this a line that would be an expensive one to maintain if constructed? It would be more expensive than the light lines of the interior. Lines consisting of heavy cuttings and banks are always more expensive to maintain than lines of no embankments.
- 22 Feb., 1898. 188. Owing to the number of heavy earthworks, and the tunnelling and the culverts and the crossings that have to be effected here, it seems to be rather an expensive line to maintain? Yes. Without going into the matter very carefully, I should say that it would cost from £60 to £80 a mile; but I do not wish to state authoritatively that it would cost that. It is possible that the Railway Commissioners' officers have gone into the question.
189. Apparently, material of all kinds necessary is available along the line—material necessary for construction, in the shape of gravel, stone, and timber; material for making bricks, and so on? Yes.
190. Can you tell us what the total length of the tunnelling is that would have to be effected—I think there are four tunnels? One on the first section, 336 yards; one on the second section, 647 yards; and there are four tunnels on the third section of an aggregate length of 629 yards, making a total of 1,612 yards of tunnelling.
191. Would they be made available for a single or a double line? A single line.
192. Would they all require to be lined with brickwork? Probably. I have allowed for that.
193. Would the cuttings be of a heavy character? Yes. On the last section of the line they are very heavy.
194. Through rock? Yes.
195. It is chiefly these cuttings and earthworks that build up the heavy expenditure on this line, is it not? The heavy expenditure is very largely due to the earthworks.
196. I suppose that, having made such a substantial reduction between 1891 and to-day as that of £396,642, you must have cut it down to the lowest possible degree? Yes. I should not consider it safe to do any more cutting down.
197. That is a very substantial reduction, is it not? Yes.
198. Would the line be a fenced line? Yes.
199. Through all these big holdings, you have provided for fencing? Yes; I have provided for fencing.
200. I suppose you do not express any opinion as to the policy of the line—whether it should be only a line to Taree, or should go further along the coast? No.
201. Judging by the *précis* that Mr. Hickson handed in and read, I suppose you dismiss from consideration entirely the proposal "A"—to start from Morpeth? Yes.
202. The fact of its having to cross a navigable portion of the Hunter almost puts it beyond consideration? Yes.

WEDNESDAY, 23 FEBRUARY, 1898.

Present:—

THE HON. FREDERICK THOMAS HUMPHERY, (VICE-CHAIRMAN.)

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn, and further examined:—

- H. Deane. 203. *Mr. Hassall.*] You have nothing to add to the statement made by yourself yesterday? No; I do not think that there is anything.
- 23 Feb., 1898. 204. In view of the proposal to construct this railway from West Maitland to Taree, that can only be regarded as the first section of a coast railway;—what I mean is that it would not be advisable to stop at Taree, in the event of that portion being constructed? I have not generally dealt with the motives of the Government in submitting railways, but with the engineering part of the question entirely. I think that Mr. Hickson would probably have been able to give you better information than myself, in giving the general reasons.
205. Do you think it would be justifiable to construct a line of railway from West Maitland to Taree in view of the traffic going along that particular length of line, and stop at Taree? At present the traffic would be very small; but I believe that the Minister looks upon this as part of the North Coast line to be eventually constructed.
206. In the event of that portion being constructed, do you think it would be necessary to extend it along the North Coast in order to warrant its construction? I do not see how to answer that question exactly.
207. I can understand that you would rather deal with this extension from an engineering standpoint? Yes.
208. I see the country is described as undulating? Very much so.
209. Is that not rather an elastic expression;—would you not call it mountainous? I should not call it mountainous. The part that is traversed by the line scarcely contains either peaks or ridges of sufficient elevation to entitle them to the name of mountains, but it is quite as bad as mountainous country.
210. In view of the estimated cost per mile, it is almost as bad as mountainous country—it would almost convey that impression to the general public? Yes.
211. I presume that the cost is calculated on the very lowest estimate? Yes; for the class of line proposed.
212. There could be no reduction compatible with public safety? Not safely.
213. And you favour the route from West Maitland *via* Dungog and Gloucester to Taree in preference to the one *via* the Paterson and Port Stephens? Yes.
214. For the reason that it would be a shorter route and the line would be rather more cheaply constructed? The crossing of the Hunter is the easiest possible, and you avoid competing with the river traffic.

215. Putting it in that light, on the line from West Maitland *via* Dungog and Gloucester to Taree you will practically cross the rivers above the point of navigation? Yes, you will. H. Deane.
216. But on the alternative route, by the Paterson, you would strike the rivers where they are navigable? 23 Feb., 1898.
Yes.
217. And consequently the expense of crossing would be much greater? Yes.
218. In your evidence you say that this line would pass through nearly 100 miles of alienated land? Yes, a little over 100 miles.
219. Have you any idea what that land is worth? I have not formed any estimate.
220. Have any inquiries been made as to what would be the cost of resumption? I do not know whether the land valuer has been instructed.
221. Your estimate, I presume, is based on the cost of the line exclusive of the cost of resumption of land, or whatever claims might be made in that respect? Yes.
222. *Mr. Lee.*] This railway route will cross how many rivers—the Hunter, the Paterson, the Williams, the Karuah? Yes.
223. Does it cross the Barrington? No; it crosses the Manning, and it crosses the Avon at Gloucester, but the last named is a small crossing compared with the others.
224. The point selected on the Hunter is about 4 miles from the junction of the railway lines? Yes.
225. What sort of bottom have you there? Very good. We get rock at the bottom.
226. At an easy depth? Yes.
227. Some of these rivers are large rivers where you cross them—the Paterson, the Williams, and the Manning;—have you had borings made in each of these streams to find out the depth? Yes.
228. Would you tell us whether any considerable amount of silt would have to be passed through there? I have not the information here, but I can provide it. There is no difficulty whatever as to the foundations of the bridges.
229. On that point all we want to be assured of is this: Would your estimate of cost of the bridges be likely to be exceeded in consequence of your meeting with a greater depth of silt than you anticipate? No.
230. Therefore, you think that your estimate will be within the mark? Yes.
231. Would we be likely to run the same risk as they had at the Hawkesbury, for instance? No; the conditions are entirely different.
232. Do you propose to put down iron cylinders for all those bridges? I think probably for the larger rivers.
233. But would those large rivers not necessitate foundations of that sort? They would necessitate either cylinders or some method of sinking by caissons.
234. That is to say that you have in any case to provide for the cylinders in the contract? Yes; what I mean is, you have water difficulties. You would either have to sink separate cylinders, in pairs or in groups, for each pier, or you would sink a large pier with perhaps one or more holes for getting out the material from the bottom—piers with wells in them.
235. But if it is intended to put iron bridges there, it would of necessity mean cylinders being used? Yes, I think the principle of excavation can be roughly classed as cylinder excavation. What I mean to say is that these cylinders need not be a true circle, but, as is often done, and was the case in the Hawkesbury, oval piers.
236. But on the same principle of excavating and making solid concrete? Yes.
237. What is the greatest span of the bridge over any one stream? Of course you will understand that any information of that sort will be rather approximate, for one may find on closer inspection when the permanent survey is made that it may be desirable to give or cut off a few more feet.
238. At this stage we will take the calculations as only approximate? Yes. At the crossing of the Hunter the width of the openings would be about 790 feet.
239. The total width of the openings? Yes.
240. On how many piers? I should probably put three principal openings over the channel, and ten openings distributed on each side. That length would about cover the flood-water channel at the point where we cross. Now I will give you information about the Paterson.
241. I am not going into detail; I only wanted to see what was your maximum span over any one stream;—have you taken into consideration the nature of those streams under condition of flood? Yes.
242. Have you designed your openings with a view of admitting the passage of flood waters and debris without injuring the bridges? Decidedly.
243. You are aware that all those rivers are subject to very heavy floods? Yes.
244. Does the crossing of the Manning present any unusual difficulty? No; the Manning, where the survey crosses it, is rather wider, I think, than the Hunter; but, from my inspection of the site, I think it is very likely that if the construction of the line were authorised I should shift it a little. The crossing of the Manning, as laid out, would necessitate a bridge of about 1,090 feet in length. I think that that might possibly be reduced by crossing the river a little higher up; but as against the saving of the bridge work there would be more earthwork on the northern side, as we should run into cutting. It is a matter of careful calculation when the line is permanently laid out as to which is the more economical and would serve the purpose better.
245. Will the height of bridges over the Paterson, the Williams, and the Manning admit of ordinary drogher steamers—that is, small river steamers—passing underneath? On the Paterson there is no navigation above where we cross.
246. But they go up the Paterson above your proposed crossing-place? No.
247. Whereabouts on the Paterson do you cross? At the town of Paterson.
248. Yes; but which side of the town? The upper side of the town.
249. You know where the present road-bridge is on the Tocal side of the Paterson? That is much lower down—that is below the town. We cross the Paterson on the higher side of the town. The steamers go up to above the road-bridge to the Paterson township, but the railway survey is above the point of navigation. With regard to the Williams there is no navigation above Clarence Town.
250. Not even by those little steamers? No; I understand they do not go up any higher. At any rate the river at Dungog, where we cross, is not navigable. Of course the Karuah is not navigable where we cross. The Manning is not navigable there either—simply a rushing stream at low water.

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251. Are any of the approaches to either of these rivers subject to inundation at flood-time; if so, what provision have you made for that? It has all been provided for. Wherever there is any inundation area that will be bridged across.
252. The Hunter, for instance, spreads over one bank considerably? Not at the spot where we cross, and I have provided in the estimates for a bridge that spans the flood-waters completely.
253. After leaving the railway line at Maitland you keep on the high land, I presume, as far as Aberglasslyn, and you cross the river somewhere above Bolwarra House? You cross it almost in line with the waterworks. The railway goes at the back of the waterworks, and there is an embankment that has been made for the purpose of keeping the floods of the Hunter from going down an old flood channel near Cummings'. It is a well-known spot.
254. Knowing that side of the Hunter to be very low, and subject to floods, I wanted to know what provision you have made, for I have known it flooded a mile at a time? We are on high ground all the way, excepting where the dam has been made, and where we cross a depression, and I propose to put in a number of openings there, so that in case the dam should give way the safety of the line will not be endangered.
255. Have you had to make any special provision for that sort of thing on any of the other rivers? No; the other rivers are easily dealt with.
256. Supposing it were determined at some future time to extend this line from Taree, which would be the first large river you would have to cross, say, from Taree to Kempsey—treating it as a section of the North Coast line? The map shows the rivers it would pass over. The first really large river is the Hastings, but the Dawson, Lansdowne, Stewart, and Camden Haven Rivers, which are first crossed, are of considerable size.
257. When the survey approaches the Barrington at Gloucester, do you then follow down on the southern bank of the Barrington River, or do you cross it? It is the eastern side—the right bank of the Barrington. The Barrington runs north. The Avon and the Gloucester combine, and then the river is called the Barrington. On some of the maps it is called the Gloucester River right to the Manning. On the map that is exhibited here the Barrington is called the Gloucester right to the point where it reaches the Manning.
258. What term shall we use from that stage;—shall we term it the Gloucester or the Barrington? I think it is generally known as the Barrington.
259. The line then follows the river Barrington down on the eastern side? Yes.
260. To its junction with the Manning? We do not follow it all the way. When we get to a certain bend, we pass over from the Barrington Valley into Baker's Creek Valley. The line is by that means not only shortened, but we also get rid of a good many engineering difficulties; and we meet the Manning and cross it just below where Baker's Creek runs into it.
261. Taking the survey from Gloucester down the river, it appears to be of a very serpentine character? Yes.
262. For what reason? The country is very rough.
263. To enable you to follow the course of the river, you have had to follow in and out little bends on the river? No; it is to enable you to get as near a contour line as possible that you have to follow the course of the river. Some of the elevations are considerable, lying back from the river.
264. But the country just there is exceedingly rough, is it not? It is very uneven. There is beautiful pasture land there.
265. Very rocky? The ground for the most part is covered with soil and good grasses, but it is very often very steep and lumpy.
266. Then you have to keep back some little distance from the stream? We are pretty close to it in some cases.
267. Are you not aware that that river is subject to very frequent and sudden floods? We are far above the level of the river.
268. A portion of that water is supplied by the table-lands of New England? Yes; we are well above the river. In fact, you will find, if you go down that river, there are very few river flats that you can make use of.
269. That accounts for the serpentine nature of the survey? Yes.
270. I presume it has not been possible to get a more direct route and maintain the same grade? No. If you tried to straighten the line up you would get a succession of tunnels. A survey was originally made round by Krumbach, and it is shown on the map—a line going easterly from Gloucester, as far as Krumbach, and then northerly to Wingham. That line crossed the Manning at Wingham, and thence proceeded to Taree.
271. How close will the line be to the coast, say from Gloucester? I should think about 40 miles. If you take it in a direct line—a line which, of course, you could not follow—I should think it would be about 30 miles. It would be about 40 miles by road.
272. Then, as a matter of fact, by going from the point of commencement to the Manning, no port of any note is passed on the coast, excepting Port Stephens? No; and we are a long way in from that. As regards navigation, the receipts of the line can be interfered with only by the shallow-going vessels on the Paterson, which run up to Paterson—they are stern-wheeled steamers—and the vessels of heavier draught which go up to Clarence Town on the Williams.
273. As a matter of fact, then, the traffic that goes now on the Paterson and the Williams by the auxiliary steamers is likely to go on after this line is made? Probably.
274. This made you keep sufficiently far back from the head of navigation on those rivers, and consequently the navigable portions of the rivers are likely to be still used? Those rivers would always be made use of for a good deal of traffic, and probably for that class of traffic the railway would compete with them very little.
275. *Mr. Roberts.*] I see two lines marked on the map, one a broad red line and the other a dotted line;—would you kindly explain which you prefer? The broad red line is the one which is submitted. That is the one that keeps farthest inland, and is above the navigation of all the rivers. The dotted line crosses the Hunter and the Williams, and almost touches Port Stephens, and I am given to understand that it does not pass through anything like so good a class of country as the other does. I did intend on my return journey to come back along that route more or less, through Bulladelah, but the weather broke, and

and I might have been kept several days in trying to get along there, and so I gave up the idea. But I think there is no doubt that if a line is to be made to the Manning the line that is submitted to the Committee is the right one.

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276. Would the eastern line—that is the dotted red line, *via* Bulladelah—go over more rivers or water-courses than the line submitted? Yes; it would be a great deal worse in that respect. It would cross the Hunter at Morpeth, or just below Morpeth at Hinton. It would cross the Williams at Seaham. I do not know whether it would cross the Karuah below the point of navigation, but it would cross the Manning at Wingham, where the cost of bridging would be very much higher.
277. Would that be on account of the extra width? Yes, the extra width and the lowness of the banks.
278. But is the number of rivers or watercourses exactly the same? No, it would not be exactly the same. I can scarcely make a comparison. But on the whole, what rivers we did cross would be very much larger, because we should be nearer their mouths.
279. And consequently it would cost more to get over them? Yes.
280. In the line submitted—I think it is called line “B” in Mr. Hickson’s report—no interference with navigation would take place? No.
281. Is the country, too, in the line submitted, far superior in fertility to the more eastern line? I am told so.
282. What rivers would have to be crossed in going from West Maitland to Dungog? Only the Hunter and the Paterson. There are one or two creeks in addition.
283. Is that what makes the line so expensive as £8,440 per mile—I mean the fact of crossing those two rivers, the Hunter and the Paterson between West Maitland and Dungog? Yes, partly.
284. What is the cost of the line from Dungog to Gloucester? £7,572 per mile.
285. What rivers are crossed during that part of the journey? There is the Williams at Dungog, and the Karuah.
286. Then from Gloucester to the Manning, what rivers do you cross? There is the Avon and the Manning, and, after Gloucester, the Barrington.
287. At what point do you cross the Manning—above Wingham? Yes; between 14 and 15 miles above Wingham.
288. Is not Wingham at the present time the head of navigation? Yes; small vessels go up there.
289. And there is a large population around Wingham, is there not? It is not a very large town.
290. But the surrounding neighbourhood is well populated? It is well settled.
291. And then from the crossing-place above Wingham, am I right in understanding that the line goes down the northern bank of the Manning to Taree? Yes. It does not follow the river-bank exactly, but it is on the northern side.
292. Did you visit Tinonee? Yes; I crossed at Tinonee coming back—in a punt there.
293. That is where the Great Northern Coast Road crosses the Manning? Yes.
294. Did you notice the country about there as regards its fertility;—is it not of an extremely fertile character from Tinonee up to Taree, and all round about Tinonee? All the low-lying land is evidently very fertile—there are heavy crops.
295. Is there not a large settled population around Taree? Yes.
296. How far down, going further north, did you go—did you go to Cundleton? No; I did not go beyond Taree. I did intend to take a drive outside as far as I could go, but the rain set in and I thought it best to make my way back. We did not get up there that bad storm which you had in Sydney, but the rain came on about the same time, and became rather heavy.
297. I suppose you took the opportunity to inquire, or possibly see for yourself the vast area of exceedingly fertile land on the banks of the Manning—I refer to the land about Cundleton, Croki, and Cooperbrook, towns on the banks of the Manning? Yes, I heard a good deal about it.
298. Did you pass through the town of Stroud? No. Stroud is off the railway route.
299. You leave Stroud on the right going up? Yes, on the east.
300. Does your line go through what is called the Brushy Mountain, between Gloucester and Taree, or does it go to the west of it? To the west of it. The road goes over the Brushy Mountain, but the survey does not.
301. Did the original survey go through that mountain? Yes.
302. But you found out a better route? The Barrington route is better. It permits of better grades, and less earthworks.
303. And it avoids the Brushy Mountain? Yes.
304. What is the country like from West Maitland to Dungog;—is not that fine agricultural country? From West Maitland to Paterson, if you go by the lower road—the more easterly road—you go through magnificent country the whole way. But on the more westerly road—on the western side of Paterson—it is more undulating. You get a good deal of timber country, the timber having, however, been mostly cut out, and the country converted into grass land. After leaving Paterson the valley of the Williams closes in, and you get the average class of country over this route. It is mostly undulating, fertile areas on the rivers, and good grass land up the slopes.
305. Then all the way from Dungog to Gloucester, it is what you might call good pastoral country, with good patches for agriculture, is it not? Yes.
306. Then from Gloucester to Taree, taking Dungog as the starting point, where does the A.A. Company’s land commence? Not until you get over the range from Dungog—a few miles out of Dungog. About 60 miles from Newcastle you come on to the A.A. Company’s land, and that is 7 or 8 miles from Dungog.
307. Taking that point—7 or 8 miles from Dungog—for how many miles does the proposed line go through the A.A. Company’s land? Fifty-one miles.
308. Where does the 51 miles terminate on the line? The property extends to the Manning. The boundary on the survey is crossed very near the crossing of the Manning—at Baker’s Creek.
309. Is it all the A.A. Company’s land? Yes.
310. Is the land belonging to the A.A. Company now used principally for pastoral purposes? Yes; they have a breeding station. There are some farms on the flats.
311. Is not the land of a character suitable for settlement—admirably adapted for the settlement of a large population—I mean the A.A. Company’s land through which the proposed line passes? I should think so. That is my impression.

- H. Deane. 312. And if the railway were constructed, is it not probable that, owing to the proximity of that land to the shipping port of Newcastle, a very large population would settle there? I think that if the land were in the hands of the Government, and were thrown open, it would attract a very considerable population.
- 23 Feb., 1898. 313. Having been over the proposed line, and, I presume, looked very carefully into the matter, do you not think you could see your way clear to reduce the estimate of the cost of construction? No; I should not like to attempt it.
314. Did you visit the Manning Heads? No; I had not an opportunity of going there.
315. Have you ever been there? No; it is the first time I have been over this country at all. I did not think it worth while to risk being weather-bound. The weather looked so very unpromising that I thought it was best to get on my way back for fear of being stuck up somewhere.
316. You have heard of the difficulties experienced by residents on the Manning, as regards communication with the outside world, owing to shallow water on the bar? Yes. It is a similar obstruction to what occurs on all the north coast rivers.
317. *Mr. Black.*] Would not the proposed line intercept a great deal of the traffic that now goes to the Northern railway—as far as Dungog, at all events, surely, and possibly as far as Gloucester? No.
318. Is there no traffic from the vicinity of Dungog that now goes to the Northern line? No, except it may go to Maitland, and there be taken; that, of course, would not mean any competition.
319. You do not think then that any of the receipts which are credited to the proposed railway are falsely credited to it? No, not in that way; certainly not.
320. And there is not likely to be any over-estimate on that score? No.
321. *Mr. Hoskins.*] In the 51 miles of this proposed railway travelling through the A.A. Company's land, did you observe many persons engaged in agricultural pursuits on that land? There are a number of farms along the route.
322. Can you say, approximately, what proportion of those 51 miles of land belonging to the A.A. Company has been devoted to agriculture, and is occupied by farmers? I am afraid I can scarcely give an estimate. The area of land, I am sure, is very small, indeed, in proportion to the area owned by the A.A. Company.
323. Therefore, the A.A. Company, I take it, use that great extent of land—51 miles, through which this line would run—for grazing purposes? Yes.
324. For breeding cattle? Yes.
325. They do not fatten them there? No.
326. They take them to Warra for that purpose? Yes.
327. Did you ever hear anybody say what the A.A. Company would be likely to ask for that land which they have devoted to breeding purposes if they wanted to sell it? No.
328. Looking to the number of creeks, watercourses, and rivers that have to be culverted and bridged, would you not say that on the last section of this proposed railway—the one going to Taree—the country is as rough as it is on the South Coast line, going from Como to Bulli? No; I should not say that it was, because between Como and Bulli there are seven tunnels, and some of them are very long—two of them nearly a mile long each.
329. The tunnels on the other line would be longer than those on this line, but there would be a number of tunnels on this line? Yes; but they do not amount to very much. There are four tunnels on the section from Gloucester to Taree, and they amount to a total of 629 lineal yards; but the country is rough; even when we follow down the Manning River, on the northern side the country is rough. You cannot get a level patch of land to make a railway on. The slopes of the hills on the north side come right down, and the country is very lumpy indeed, and there are consequently heavy earthworks.
330. In addition to that, are there not many creeks and water-courses to pass over with culverts? Yes.
331. More than on the Bulli line? Yes; I believe there are. They are larger, at any rate, and more important.
332. You have told us that there are, at any rate, a good many level tracts of rich alluvial flats on the rivers; but are not those river flats very narrow in width and do not extend to any great distance? They do not extend to a great distance.
333. They are all pretty well taken up and occupied, are they not? Yes.
334. *Vice-Chairman.*] Have there been many surveys made of this proposed line from Maitland to Taree? There have been a good many deviations made.
335. Can you briefly give the history of the work done by your surveyors, because I observe that when they started first a large portion of the line was 1 in 40, and the cost was estimated at much more per mile than at the present time;—you have reduced the grade to 1 in 60, and the estimate from very nearly £1,500,000 to less than £1,000,000;—would you kindly give an explanation? The reduction in the cost is chiefly due to the reduction in prices of work, but there also has been a considerable reduction due to carefully laying out the line and the use of sharper curves—curves of 12 chains radius.
336. In order to reduce the grade to 1 in 60, have you been obliged to lengthen the line appreciably? That I am not sure about. The adoption of flatter grades has, in some places, no doubt, lengthened the line considerably. On the other hand, there has been a shortening of the line; for instance, by the Barrington deviation, which was not the original one, a shortening of the line, I think, by about 10 miles.
337. Was it originally proposed to take the line along the river? No; over the Brushy Mountain, and round by Krambach.
338. You now take it down the river? We take it down the Barrington, and cross the river near where Baker's Creek runs in, and then follow the northern side of the river. We get a more direct route, and on the whole it is better, because it has better grades, and would probably be lower in cost. I will send you a statement as to the different surveys.
339. Do you think it possible, on further examination, to reduce the estimated cost? I should not like to reduce the estimate at the present moment, but I think that it is quite possible that, if the construction of the line were authorised, and it came to be permanently staked, small deviations and alterations could be made which would cause a reduction in cost here and there. On the whole, however, I think the line cannot be much improved. I should add that the system which I adopt at the present time in making the trial surveys is, in my opinion, a better one than used to be adopted, for this reason: that it gives a very much better and closer means of estimating than the older method. The surveyors on my staff are all experienced men. They know exactly what is wanted; they are not hampered in any way, and I make

use of their own experience, to the utmost; and I give instructions for the line to be selected and laid out with such care as to be approximately the line that will ultimately be adopted, avoiding, however, the consideration of too many minor details, which would take up too much time.

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340. I suppose that at the time the survey was first made, when the ruling grade was 1 in 40, that was considered a sufficiently easy grade; the instruction to the surveyors was not to have anything more severe than that? I cannot speak as to what was done at that time, because I was neither in my present position, nor had I charge of the surveys, but I am under the impression that at that time it was considered necessary in making a trial survey only to show the practicability of the proposal. The trial survey was made more with the idea of showing the practicability of the route than of showing the best that could be made of it.

341. And where a grade of 1 in 40 could be obtained the route was to be regarded as practicable? Yes; and very vast improvements would be left for the permanent staking. Of course that system did not enable one to give so careful and accurate an estimate as is possible at the present time, although it might be a good system if accuracy of cost were not necessary.

342. At the present time it is, and for some time past it has been, the practice to instruct your surveyors to seek a less severe grade than 1 in 40? Yes, the best possible grade under the conditions.

343. *Mr. Hoskins.*] In the event of the construction of this railway being authorised by Parliament, how many years do you think it would take before it was finished? I should think it might be done in about three years.

344. *Mr. Roberts.*] How many stations have you provided for? I have provided for a station about every 10 miles—at all the principal towns and centres of settlement, and principal roads of access. I now hand in particulars of the holdings of 20 acres and under, the statement having been prepared in the Survey Office. Those are the particulars referred to by Mr. Wright in his examination of me yesterday. Although I think that the statement is accurate, it must be accepted as an approximate statement only.

THURSDAY, 24 FEBRUARY, 1898.

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Hugh McLachlan, Secretary to the Railway Commissioners, sworn, and examined:—

345. *Mr. Trickett.*] I suppose you have carefully read and considered the Commissioners' report, dated the 24th November, 1897, on this proposed railway? Yes.

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346. Since then have the Commissioners seen any reason to alter the conclusions that they came to in regard to this railway? No, the Commissioners see no reason to alter their opinion.

347. That report is entirely unfavourable to the construction of the line? Yes.

348. The report states that the Commissioners have personally gone over a great portion of the route. Have you gone over it yourself? No, I have not.

349. I suppose that Mr. Harper, as usual, will be able to give us detailed particulars as to the traffic? Yes.

350. Can you tell us whether the Commissioners regard this line on its own basis, or in connection with a possible extension to the north? They have looked upon it on its own merits.

351. Have they considered, if it went further north, whether that fact would tend to make it a more remunerative line? No, not to my knowledge.

352. They have not looked at it from that point of view? No.

353. I suppose you can say that if the Commissioners themselves had been the first people in regard to a project of this kind, this Committee, in all probability, would never have heard of it? No, they would not.

354. In the face of those extraordinary figures showing that this line at the start would result in a loss of £31,468 a year, are you able to tell us how it is such a project as this comes before the Committee? Of course that is a matter in which the Commissioners would not take any part. The Government, as a matter of policy, propose a line, and the Commissioners, according to their duty, have to make a report as to the financial prospects of the line. That is where their duty comes in, and they have made their report accordingly.

355. In this report considerable prominence is given to the fact that water competition would be encountered in the case of this line being constructed, and that such competition is always a very strong factor against the success of a railway? Yes. It must naturally be a very strong competitor, and a successful competitor in most instances, with a railway.

356. As Secretary for railways you have been frequently asked your views on that point. Do they still remain the same, namely, that where water transit is available it can be done more cheaply than by railway, and is usually availed of? Yes. On the general question of competition by sea, I may read the following extract from a report of a Select Committee of the House of Commons on Railway Companies Amalgamation. In that report, which was made some years ago, they refer particularly to the question of competition by sea, and, as they sum up the matter effectively, I made this extract:

In the first place there can be no doubt that effective competition exists between places between which there is transit by sea. The sea is a highway which cannot be closed or restricted, and which admits any number of competing carriers. Ships are readily built, profits upon them are rapidly made, and constant improvements in building and economy in working encourage incessant building; and, readily as they are built, they are still more easily transferred from one trade or voyage to another. Where there is a demand for sea carriage the supply is sure to follow. Consequently, when railways compete with ships, fares and rates are generally exceptionally low.

Consequently the competition of sea carriage is an important element in determining railway rates for goods, and has a large indirect as well as direct operation. The extent and importance of this form of competition may be in some degree estimated from the answer of a very competent witness, who states that after some inquiry he believes that it affects the rates for goods at three-fifths of all the railway stations in the United Kingdom.

H. McLachlan. One of the witnesses—Mr. Farrer, who is a recognised railway authority at home—was asked the following question :

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I wish to ask you some questions as to the amount of competition, in your opinion, existing, or which may be maintained between the railways themselves, and between the railways and other means of conveyance; and first, as to competition by sea, you would say, I have no doubt, that this is competition which is real and effective?

His reply was :

Very real and very effective; and one which, if proper precautions are taken, can scarcely come to an end. It appears throughout the evidence given before this Committee, and before the Royal Commission, that that competition tells in every way, direct and indirect, in the way of reducing the rates on goods especially, and sometimes the fares for passengers, but the rates on goods to an enormous extent; and in many ways in which you would hardly think, in the first instance, that it would reduce them.

That sums up the matter fairly well.

357. Those views you fully endorse at the present moment? That is our experience.

358. In the Commissioners' report there is the following paragraph :

It is true that the water service is at times somewhat precarious, and there is a generally expressed opinion among the residents that it is not satisfactory; yet it must be fully recognised that freight charges and fares are, as a whole, even now much less than those which could be quoted in connection with the proposed railway, and would no doubt be considerably reduced if such a course became necessary to retain the traffic.

Have you the comparative figures on which the Commissioners base that statement? They are in Mr. Harper's report. Those rates would be very much less than the rates we could afford to quote, or that we have quoted.

359. Would you prefer to leave that evidence to be given by Mr. Harper? Yes.

360. He will be able to give us exactly the comparison to show that the freights by the steamers would be to the advantage of the steamer traffic both for passengers and goods? Very much so. Of course there is another important consideration which enables them to compete with us. I suppose they would save 30 per cent. in distance.

361. I was going to ask you a question about that; the distance is much less by steamer? Very much less.

362. How would the time compare? There would not be a great difference in time, compared with an ordinary trip. The North Coast boats with a fair wind have done the trip in fourteen hours. Their average would be sixteen or seventeen hours; and, with a mixed train service, I do not suppose that we should do it in more than perhaps two or three hours' shorter time—that is, in view of the longer distance we should have to travel. So far as the interference with trade is concerned, of course you would be able to get the local pilot's evidence. But I understand from the Steamer Company that they have had little interference with their operations, practically, for twelve months past.

363. But in regard to the distance to and fro—the water distance being shorter—even if the people came by train, they would have to pay considerably more, and therefore they would still avail themselves of the water? Yes; as a matter of fact, as regards water competition, they are much more favourably situated—that is, taking like with like, at any time. But the saving in distance, I think, would be at least 30 per cent.

364. The Commissioners also state in their report :

For perishable freights, such as cream, butter, fruit, poultry, &c., and stock—particularly calves and pigs—the advantages of quick transit by rail would probably operate largely in favour of that method of carriage, and a liberal allowance has been made in this connection in estimating the revenue.

What is the experience of the Department in that direction with regard to the South Coast trade? The experience is that we get the perishable traffic; but of course you can understand that we get it more particularly in this way: we have a regular service—two trains a day, practically—whereas the boats may run only twice a week. At present, they run no oftener to the Manning. If we were to run a daily train on this proposed line, we should get the butter and the milk and such things, but there is not much profit in carrying them. However, I do not think we should get much of goods that could be waited for—general goods, and maize and other things. There is another consideration which must not be lost sight of, namely, that the greater part of the traffic would be from farms on the banks of the river where the people are settled; and the steamers in every case include delivery from the private wharfs, for they drogher the stuff down, their boats running a good distance up the river, and afterwards they land it on the wharf in Sydney, and store it there. Therefore, in addition to having to pay much higher rates by railway, the people would have to pay more transmission charges to reach the railway station.

365. In fact, it almost seems a question whether, if a railway were constructed to Taree, the Commissioners would have to go in for some means of collecting the trade, so as to bring it to the railway? That, of course, would add enormously to our expenses.

366. If the steamers still competed, and by means of small droghers collected the freight from the producers' homes, or from the wharfs near to them, at a small rate, it seems very probable that the people themselves would not take the trouble of bringing their stock to the railway station, either by driving them a considerable distance or by means of vessels? The stock would not be such an important consideration, for it is not a big stock district. Take our experience of the South Coast: we send more stock into that district than we bring from it. But with regard to general goods, the steamer's rate, which is already much lower than ours, includes, practically, delivery to the nearest wharf, and very often the people with big farms would have their own wharfs from which the droghers would take the goods. Take the case of maize. The steamer's rate is practically 10s. a ton, delivered in Sydney on the wharf, and in most cases it would be taken from the farmers' wharfs themselves. Our rate for grain is an extremely cheap rate—one of the lowest rates that we quote—but even that would be higher for maize than the steamer quotes, and the farmers would have the additional cartage to the railway station.

367. The Commissioners mention certain lines of perishable freight that would, perhaps, go by the railway;—do you know what is the chief freight sent from the Manning River? The principal freight would be farm produce—maize; and then there would be general goods going into the district.

368. You are aware, I suppose, that the Government have in contemplation the expenditure of a considerable sum of money for improving the entrance to the Manning River? Yes.

369. And that, I think, is also a matter under reference to this Committee? Yes. Of course, that would simply assist competition against the railway.

370.

370. If that were carried out, it would make the competition by steamer against the railway even more keen? Yes, more effective.

371. In regard to the South Coast line, are you able to tell us whether the passenger traffic by steamer has been affected much by the construction of that railway? We get most of the passenger traffic on the South Coast line. The regularity and the frequency of our trains hold that.

372. It is a fact, is it not, that this railway, if it were constructed, would go through a very large stretch of private property? Yes.

373. The greater part of it? Yes. About 50 miles of it, I think, would run through one estate.

374. And that, I suppose, must necessarily add very largely to the cost of the railway? Yes; that is, if you had to purchase land. I think the capital cost does not include land resumption; but, of course, Mr. Deane will be able to say.

375. The Commissioners have not estimated any amount for that? No.

376. But it necessarily would be a very large amount if the land had to be purchased? It would necessarily add to the cost. I daresay that a lot of the land would not be dear land.

377. Have you anything else to state in addition to the statement which has been handed in on behalf of the Commissioners with regard to this railway? Not at present.

378. And it is one that neither the Commissioners nor yourself can recommend for construction? The Commissioners do not recommend it.

379. *Mr. Hassall.*] Are you aware that there is also before the Committee a proposal to improve the facilities for vessels entering the rivers along the northern coast? Yes.

380. Do you think there is any justification for both proposals—that is, for this extension of the Northern Railway, and for the improvement of the bar harbours of the various northern rivers? The Commissioners have simply looked at the matter from a railway point of view, and they think that financially it will not be a success.

381. Taking into consideration the competition that must ensue from the river traffic? The competition that exists to-day.

382. And not only exists now, but any improvements made in the bar harbours along the northern coast will render that competition more difficult to meet? Yes.

383. The railway extension from West Maitland to Taree can only be one step in the construction of a north coast railway? That is a matter which has not been considered by the Commissioners. They do not recommend this step.

384. Do they, or do they not, recognise that the first step must mean an ultimate extension further north? I am not sure. They only had this proposal referred to them—not, I think, as the first stage of a coast railway—and they reported on this proposal on its own merits.

385. And in their report on this particular extension of the railway from West Maitland to Taree they have not taken into consideration a further extension to Coff's Harbour, or, ultimately, to the Tweed and Lismore railway? Not directly.

386. But they recognise, I presume, that any construction of a north coast railway must undoubtedly mean competition with water carriage? With the existing facilities, yes.

387. And for that reason they do not recommend it; I notice that, in 1891, you, on behalf of the Railway Commissioners, sent a letter to the Under Secretary for Public Works, in which you said:

With reference to the request that the Railway Commissioners would report upon the proposal for the construction of the North Coast line—West Maitland to Taree—(estimated cost, £1,378,923), I am directed to say that the matter has been carefully inquired into, a responsible railway officer having gone over the route proposed; but there would appear to be no prospect of the line for many years being remunerative. As the personal inspection of the proposed line by the Commissioners would involve much loss of time and expense, and it is probable that the Government may determine to postpone the matter for the present, I return the papers herewith, and shall be glad of further advice.

? Yes.

388. Has anything further been done, as far as the Commissioners are concerned, in connection with that proposal? Nothing except this particular proposal. This is the next step practically.

389. And as you have already told Mr. Trickett, the Railway Commissioners have not seen fit to alter their opinion in any way? No.

390. I presume they have given the matter very careful consideration? Yes; and they went personally over the route, and took evidence on the ground. They went very carefully into the matter.

391. And in their opinion, is the estimate of loss annually, amounting to £30,000, roughly speaking, borne out by the result of their inspection? Yes; their report was made after their inspection, and after they had given very careful consideration to the matter.

392. So that, in their opinion, the construction of this line, and the working of it, would result in an annual loss of over £30,000? Yes.

393. They have seen no reason to alter that opinion? No.

394. And for that reason they cannot recommend its construction? No.

395. *Mr. Lee.*] The report of the Commissioners on this proposal has been arrived at not altogether upon the circumstances attending this proposal, but after having had the advantage of railway extension carried out under somewhat similar conditions? Yes.

396. Therefore they are now in a position to speak positively on the point as to water carriage *versus* railway carriage? Yes.

397. Have they not a precedent to guide them in the Illawarra line, as far as Nowra? Yes. That is a more thickly populated district, and more likely to bring traffic, and of course this line will cost a good deal more.

398. Is it a fact that the coast steamers are still trading to the southern ports as far as the railway line has been extended? Yes.

399. And have been running against the railway line since it has been constructed? Yes.

400. Do you happen to know whether they carry any large quantity of produce from that district? The steamers get a large portion of the produce from the district, and we find the coast affects us in competition very keenly, at even a very long distance from the coast. That is, I think, what is referred to in that English evidence, that directly and indirectly sea competition affects the railway. We know from our own experience that we are affected by sea competition fully 100 miles from the coast. For instance, in the case of Glen Innes, which is 104 miles from the sea coast, and also on the Cooma line we have the same trouble. The distance from Queanbeyan to Nelligen is 67 miles. We are asked

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very often to quote reduced rates on account of this sea carriage. I was turning up a letter only yesterday from Queanbeyan, which is 67 miles from the nearest southern sea-port, and, to show you the feeling, I may say that in this letter the writer says:—

It compels me to approach you [that is the Railway Commissioners] on the subject of a reduction in the rates of railway carriage. The accessibility of Nelligen as a port gives us the option of water carriage.

That is 67 miles from a railway station. So you can see to what extent water carriage affects the railway—in one case 104 miles, and in the other 67 miles—and affects it keenly.

401. Can you tell us the class of goods or produce that you carry from the Illawarra district? I should not like to say from memory; but generally I take it to be what we call the lower class goods. The general goods go to the steamers.

402. Would you carry such things as maize and other low priced goods? As a rule, those are the goods we would get—the low class goods, what we call the miscellaneous and the “A” class goods.

403. Can you carry maize as cheaply from the Illawarra district as by steamer? There is very little maize grown there. Our rate for maize from Taree, supposing the maize were put on the trucks, would be a couple of shillings dearer than the steamer rate to the wharf in Sydney, and the steamer, of course, has this advantage, that it would drogher the maize in a much better position, probably, for the farmer. So, even as regards maize, the steamers would be in a much better position than we should be, and they would also have fully 30 per cent. less distance to run. According to the coast chart the distance of the Manning River heads from Sydney in a direct line is 141 miles. Of course, you would have to allow a little margin for not following a direct course. But the distance from Taree to Sydney would be about 230 miles.

404. Your experience on the South Coast line has proved that you have not been able to get the whole of the traffic of that district? No.

405. And at present there are at least two steam companies competing with you? Yes.

406. Do you see any prospect of ultimately obtaining the whole of that traffic? I do not. The sea competition must always be very real and very effective.

407. That line has been in use sufficiently long to enable the Commissioners to decide what should be done to obtain the traffic, has it not? Yes.

408. And have they been able to strike a rate sufficiently low, consistent with proper railway management, to enable them to obtain that traffic? Not to get the whole of the traffic.

409. If that obtained on the south coast, I presume that the Commissioners are of opinion that it will obtain on the north coast as well? Yes; I may say, in regard to those two lines you have referred to particularly—Sydney to Nowra, and Goulburn to Cooma—on the Goulburn to Cooma line, the result for 1896, including interest for that year, was a loss of £47,000; whilst on the Sydney to Nowra line, the loss, including interest, the same year was £49,000.

410. Is that an exceptional year? No; for the previous year, 1895, the loss on the Sydney to Nowra line, was £54,000—it picked up £9,000 in 1896.

411. 1896 seems rather a favourable year? Yes, for that line. On the other hand, the Cooma line has gone back. Of course the Illawarra line is in a far better position than this line is likely to be in. On account of the directness of its association with Sydney, you have a big passenger traffic. The Illawarra district is more thickly populated, and the milk, cream, and butter traffic coming up directly gives us business I do not think we would get from Taree.

412. Has it not also the further advantage of running into an old established dairying district? Yes, and I think that its resources are better than those of the Taree district.

413. If it were not for the dairy produce, that line would fare very badly? There is a certain business in coal. Of course the coal-mining population being pretty dense, too, it gives you passenger traffic.

414. But it does not give you very much coal traffic? It all helps the earnings.

415. At all events, looking at it all round, it is a much superior line for traffic than the Taree line would be? It seems to me to be so.

416. For none of those industries exist between Maitland and Taree? No.

417. Then, again, in the north the problem that you had to deal with for so many years—the competition of the Clarence River with Glen Innes,—has been a difficult one? It has been a difficult question.

418. And you have been unable to compete with that? Yes.

419. And you still lose traffic? A certain amount.

420. That again would influence the Commissioners in coming to a decision, showing how difficult it is to compete with water carriage? Yes.

421. If the entrance to the Manning River were made navigable under all circumstances, and if a railway were run to the Manning River as well, do you think there is the slightest probability of the railway ever capturing the trade? I do not think so; not the paying trade.

422. You would get the bulk of the passenger traffic? We might get a good deal of that; very many people prefer land to sea.

423. But since the produce grown there, chiefly maize and stuff of that kind, is at a very low price, you hold that it would be impossible to expect it to be sent by train, when the farmers have the advantage of water carriage? We might get a portion of the maize, but very little of the general dear goods; and I am doubtful if we would get very much of the maize.

424. *Mr. Roberts.*] Can you tell the Committee the places that the Commissioners visited along the proposed railway? No, personally I cannot. Mr. Harper was with them. They mention them in their report. I should not like to speak from memory.

425. Did the Commissioners go by sea, and come back overland, or did they go overland and come back by sea? They went both ways overland.

426. Can you say whether they had any opportunity of seeing the entrance to the Manning? They were at Taree; I do not think they went to the entrance to the Manning. I do not think they went below Taree.

427. I think you said, in answer to Mr. Trickett, that the Manning was within fourteen hours of Sydney? With a fair passage I believe the steamers have done the trip in fourteen hours. In regard to those 141 miles, I might have mentioned that they were nautical miles, and I suppose that they will be equal to 170 land miles.

428. That would be from Sydney Heads to the Manning entrance, would it not? Yes.

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429. Do you know that the trip has been done in fourteen hours ; is it not a fact that it generally takes from eighteen to twenty or twenty-four hours to get to off the Manning Heads from Sydney? The Assistant Secretary to the Company told me that you could take their average trip as being about seventeen hours.

430. You are aware there is a long journey up from the Manning Heads to Taree? About 28 miles, I think.

431. So that a steamer leaving Sydney, say this afternoon, the people would not be able to get their goods out of the steamer at Taree until the day after to-morrow? They ought to get them out to-morrow afternoon, I should think, at Taree.

432. Would there not be all the different wharfs to stop at going up the river? I am not sure about the time; but the Secretary told me the time of their trip on the average, and that it might be taken as seventeen hours.

433. That is to get off the Heads; but there is a long journey up the river with the stoppages at the various wharfs? I have not been on the river myself.

434. It would be nearly forty-eight hours before the people at Taree could get their merchandise? I should not think it would be anything like that; but, of course, the Company could give the Committee information as to that, or the Sectional Committee could obtain it.

435. But seeing that it might take from forty to forty-eight hours to get goods there, when they could be taken in four hours by rail—and the same thing applies to passenger traffic—would it not be a fair thing to assume that the railway, on account of expedition in transit, would get the bulk of the traffic—passenger as well as goods traffic? There is not a great deal of passenger traffic from that district, and there is not likely to be, I think. So far as drapery, spirits, and goods are concerned, the detention of a day does not make any difference. You can see that in regard to the road carriage on the south coast and the north coast, which takes perhaps a week longer than by rail, but that does not stop competition.

436. You say you do not think there would be a large passenger traffic from the district: but would not that be owing to the people having to undergo the discomforts of a sea voyage now? It is too remote from Sydney, I think, for us to get a very big passenger traffic, and the population of the district is not what you would call a dense one.

437. But is not the population, although it may not be dense, scattered among numerous towns along the river? They are a class of people who do not travel. As a rule, you find that a farming population are not big travellers. They are not like a mining population—they are not a travelling population.

438. Is it your experience on the South Coast that the farmers there are not travellers? To some extent it is; but, still, on the South Coast the circumstances are very different, because they are very much nearer to Sydney, and the expense of travelling is so much less. Besides, a great deal of the traffic into that district is tourist traffic, and recently large smelting works have been established there, and there is a big mining population in the district. Therefore, the circumstances of the two lines I do not think are in any way similar.

439. Have you ever been over this country from Maitland to Taree? No; I know that very few people go over it from choice at the present time.

440. Are you aware that the scenery along the proposed route would compare very favourably with the scenery on the South Coast? Yes; but it is a longer distance away. It is certainly not better.

441. If a railway were constructed from Maitland to Taree, is it not possible that many of the natural beauties of the place would be opened up and attract a number of tourists in the same way as they are attracted to the South Coast? No; I do not think you would get much tourist traffic there. The distance from Sydney alone would prevent it. Besides, you have prettier places elsewhere and much more accessible and much more cheaply reached. Personally, I do not think that you would get much tourist traffic in this district. That is my own opinion.

442. There are equal attractions for tourists along this line as there are on the South Coast? So there may be; but, as I have pointed out, the greater distance from Sydney and the greater cost must, of course, prejudice it very much when you compare it with the South Coast.

443. You think that the distance would prevent tourists from going there in such numbers as go to the South Coast? Distance, and the cost of travelling.

444. Are you aware that coal has been discovered between Maitland and Taree? Yes; I believe there is coal there, but not worked.

445. If they had the advantage of railway transit, is there not a possibility that it would open the country in that way, and develop the mineral resources of that part of the Colony? Of course you have plenty of coal country opened up already, so much nearer to a port, so I do not think there would be any great benefit in doing that. I do not think that the Commissioners have allowed anything for that traffic, nor do they expect to get it.

446. Are you aware that the Manning is fast becoming what I may call a dairying district—that large areas of land are being devoted to dairy purposes? Yes, I believe that it is becoming a dairying district but we have the experience of a dairying district which has been opened up pretty fast, that is between Lismore and Murwillumbah. On that line, in 1896, we lost £28,000, and that is a better dairying district.

447. But is not the South Coast railway principally dependent on the dairy produce to feed the railway? As I have said, it has very large resources; for instance, there are industries in the district, and coal-mining is carried on extensively there, and then there is a big passenger traffic, such as I do not think you are likely to get on this Taree line.

448. What I wanted to point out, or get you to see is that that tended to rapidly decrease the loss on the South Coast railway, and would it not be a fair thing to assume that the same thing would obtain in a few years on the North Coast line? No, I do not think so. Of course the smelting-works are helping the South Coast line a good deal, and the increased passenger traffic has helped it a good deal, and also a greater business in coal.

449. Are there not on the north coast, between Newcastle and the Richmond, some eight or nine rivers that would require a large expenditure of money to afford safe and sure navigation? Yes, they would require a good deal of money to improve the mouths.

450. Does it not appear to you that if this money, instead of being expended on improving the entrances to the harbours, were expended in railway construction, the result would be more beneficial to the Colony generally, because in the one case the Government would receive some return for their outlay, and in the other

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other they receive nothing? It is very problematical. In the first place the expenditure would probably amount to millions of pounds as against thousands of pounds, and it is doubtful whether the line would earn sufficient to pay working expenses. That is the feeling of the Commissioners.

451. Is it a fair thing to say, that in one case the expenditure would amount to millions of pounds, and in the other to only thousands of pounds,—seeing that each of these eight or nine rivers would on an average require an expenditure of £250,000? The Richmond, the Clarence, the Macleay, and the Manning, would be the four rivers that would have to be dealt with. I do not know what the proposal in regard to Trial Bay is.

452. The expenditure in each case would be about £250,000? I did not know that it would run into that.

453. It would average that, I think? On this section of line alone the expenditure would amount to £1,000,000.

454. Are you able to say whether if the line were continued to Grafton, the loss would be minimised? No; the Commissioners have not looked at that. I think that the estimate allowed for passenger traffic allowed 40 passengers a day on this line, and the Commissioners think that that is a fairly liberal allowance.

455. *Mr. Wright.*] Touching Mr. Roberts' last question, this railway to Taree would cost nearly £1,000,000, and I suppose that an extension of this line to Grafton would cost quite as much again? I could not say; but I understood that it would cost a good deal more.

456. You cannot say; but from the nature of the country you think that it would cost as much per mile as this proposed line? I think that it would cost more. Our experience is, that it is more costly to make railways along the coast than to the coast through ordinary country.

457. And the traffic would not be very materially increased? I think not.

458. About the land along the route on this railway, I think Mr. Trickett asked you some questions; is it true that the A. A. Co. have offered free that portion of their 51 miles of land through which this line would run? I am not aware. Of course it would not have been offered to the Commissioners. It may have been offered to the Public Works Department.

459. It would not come under your observation? No. I do not think it has been before the Commissioners.

460. *Vice-Chairman.*] What is your experience with regard to the North Coast passenger traffic by water in competition with the railway traffic? We get a great deal of the North Coast passenger traffic—you mean Newcastle. I have not the figures with me; but I know that we get a very good passenger traffic, and the steamers do also. They are running at less fares.

461. The steamer charges are lower than the railway charges? Yes.

462. What is the difference? Our rate is £1, 1st class return. I believe they have altered their fares lately; but I think that they charge 5s. steerage on the Newcastle boats, and 10s. or 12s. saloon.

463. As far as you remember, the railway fares are about double the steamer fares? Yes.

464. What, approximately, would be the comparison between the railway fares and the steamer fares if the railway were extended to Taree? At the present time, the steamer fares to Taree are £1 5s. saloon single, and £2 return. If we took a somewhat similar distance on the railway, we should be about 50 per cent. or more extra. For instance, our single fare would be £2 and the return £3, as against £1 5s. and £2, and no doubt if competition came about they would still further cut for business.

465. Can you give us any information about Taree as regards freight for the different classes of goods? To Taree, I believe they would charge in many cases about one-third of what our charge would be, for general goods.

466. What would probably be the comparison of the freight by rail and by steamer to Taree upon their present rates? For passenger fares they would be at least 50 per cent. under, and for general goods they would be less than half of our rates. For maize our rate would be about 11s. 9d., and that we reckon is our lowest up-rate. That is without any charge for getting the stuff to the railway station, which would make the cost about 13s. Their rate is 10s., so even for our very lowest product they are still considerably under us—you may say 30 per cent. under.

467. Did the Commissioners take into consideration the probability or otherwise of the interest on the cost of construction being overtaken within a reasonable period? No; they do not see any prospect of its being overtaken.

468. Do they look upon it as a permanent loss? Yes.

469. The prospects of the line afforded them no encouragement whatever? From a financial point of view, none.

470. *Mr. Wright.*] On the South Coast railway do you carry much maize from Shoalhaven to Sydney? No.

William Henry Hall, Sub-editor of Statistical Year Books, Government Statistician's Office, sworn, and examined:—

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471. *Mr. Hassall.*] I believe that you have some statement to make in reference to the population along the route of this proposed line of railway? Yes. I have taken a distance of 10 miles on each side of the projected line. In the county of Durham there is a population of 6,280. That is distributed over certain localities.

472. Does that include the whole of the population, or only the adult population? The whole of the population. In the county of Gloucester there is a population of 4,110; in the county of Macquarie there is a population of 3,210, making an aggregate population for the district of 13,600. The following list gives the details of the population:—

<i>Localities in County Durham.</i>	
Bendolba	115
Bolwarra	530
Brookfield	125
Clarence Town	580
Dungog (M.)	1,100
Gresford	635
Hinton	620
Largs	285
Paterson	385
Seaham	85
Vacy	185
Woodville	250
Outside of Localities	4,895
	1,385
	6,280

Localities

<i>Localities in County Gloucester.</i>			
Bandon Grove	325		
Clarkson's Crossing	95		
Kimbriki	140		
Monkerai	170		
Stroud	305		
Thalaba.....	200		
Tinonee.....	255		
		1,490	
Outside of Localities		2,620	
		-----	4,110
<i>Localities in County Macquarie.</i>			
Coopernook	320		
Croki	75		
Cundleton.....	330		
Dumaresq Island	240		
Ghinni Ghinni.....	120		
Killawarra	95		
Mitchell Island	365		
Oxley Island	365		
Taree (M.)	730		
Wingham (M.)	570		
		3,210	
Outside of Localities (all included in various islands above, &c.)		-----	3,210

Total population of district			13,600

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473. That return, I presume, is made up to the present year? It is the latest return.
474. Have you compared that return with returns for previous years? No.
475. What I wish to find out is whether the various districts enumerated are increasing or decreasing in population, or are at a standstill? Without making a comparison, and taking it out for each year, it would not be possible to say. I was asked to produce evidence according to the latest records we have, and I have confined myself to that.
476. I suppose you have no idea what are the principal occupations of the residents? No.
477. You can only give us that return of the estimated population of the various places in the district through which the line would pass? Yes.
478. You cannot give the Committee any information as to their pursuits or anything of that character? No, I cannot.
479. And you cannot tell us whether the population is increasing, at a standstill, or retrograding? Not without making further inquiry.
480. *Mr. Wright.*] Can you tell the Committee what proportion of the population you have enumerated is within 10 miles of Maitland? I could not, without taking the map and going through the localities again. The population of Largs is 285; Seaham, 85; and Hinton, 620.
481. *Mr. Roberts.*] Which town contains the largest population? Dungog—1,100 in the municipality.
482. What is the population of Taree? 730.
483. Wingham? 570.

Henry Richard Carleton, Principal Assistant Engineer, Harbours and Rivers Branch, Department of Public Works, sworn, and examined:—

484. *Mr. Lee.*] You are aware that this proposed railway is to start from West Maitland, and go *via* the Paterson and the Williams, and across the Manning River to the township of Taree? Yes, I heard something about it, and I glanced at the plan here this morning.
485. A distance of 113 miles from Maitland;—do you happen to know the distance from the Manning heads to Sydney? 141 miles.
486. Do you know about the time it takes coastal steamers to make that trip? They do about 9 knots, I think, and it would take from sixteen to seventeen hours.
487. You know the Manning River pretty well? Yes, I made a survey of it.
488. You know the situation of Taree? Yes, very well.
489. If this line were carried to Taree, and your proposed harbour works were also carried out, what would be the effect on the produce of the district—which way would it go? It would still go by the river and by sea.
490. Why would they patronise the sea and not the railway? It would certainly be cheaper by sea, and I think it would be more convenient. The railway would serve only one side of the river. The farmers on the other side would have to bring their produce over the river and handle it twice to bring it to the railway.
491. I suppose that both banks of the river are occupied, and under cultivation? Yes.
492. Which, in your opinion, would best serve the the district—a port or a railway? I think it would be better to improve the entrance to the river.
493. Are you of opinion that there is any necessity for both works? I hardly think that there is.
494. If the port were kept open and a railway were made, would not the effect be that one must certainly rob the other to a certain extent? They would certainly enter into competition.
495. If the port were at all times an accessible port, would the fact of a railway running to Taree shut out the present coastal steamers from it? Not if you had a good entrance.
496. You think, therefore, that water communication is almost certain to be sustained? I think so.
497. You say you believe that a port would best suit the district? Yes.
498. I believe that the entrance to that river is uncertain at times? Yes.
499. And under conditions of that kind, if there were a railway, the inference is that the perishable goods and the passenger traffic would be likely to go by the railway? Yes.
500. But would that apply to such produce as maize, and things of that kind, and live stock? I think not. A reduction in freight would draw all that produce by water.
501. Are your Department doing anything to the South Coast entrances now—are you carrying on any works at Shoalhaven? We are doing some dredging on the South Coast, and repairing the jetty at Eden.
502. Notwithstanding the fact that there is a railway down there, it appears to me the Department still have to keep open the waterways? Yes.

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503. Which, of course, must sustain competition with the railway? The Shoalhaven bar is one of the best on the coast; that is why we have not to do anything there.

504. The Department is spending money on the river there? Yes, but the Shoalhaven bar is one of the best on the coast, and does not require any expenditure to keep it open. It faces directly north, and is so very well sheltered that we never have any trouble with it.

505. Do you think that it would be in the interests of the country to construct this railway to Taree and allow the entrance to shoal up? I do not think it would.

506. As a matter of fact, is it not the policy of every country in the world to keep open their waterways—to keep up the ports? Yes. I look upon a river as a natural highway.

507. Irrespective of any other means of communication, is it not the universal policy of every country to keep open its ports? I think so.

508. Are they not valued above every other means of communication? Yes.

509. Therefore, have you any reason to suppose that, if a line were made to Taree, the people of that locality would be satisfied to allow the entrance to that river to close up? I do not think they would.

510. Would there not be a continual agitation on the part of the people to your Department to have work done there? I would expect something of that kind.

511. Therefore, the construction of the railway would not do away with the necessity of work at the port? There would always be a certain amount of traffic on the river.

512. *Mr. Roberts.*] Is not the entrance to the Manning one of the most difficult for navigation at the present time? It is rather a dangerous one, and troublesome.

513. Have there not been many wrecks there within your knowledge? Yes, there have been a good many.

514. Owing to the want of improvement of the entrance? Yes; it labours under the difficulty of having the headland on the northern side, which is a very bad thing for any entrance.

515. Does it not require continual dredging in order to allow vessels of even very light draught to get into the river? Yes, until the harbour works are fairly extended.

516. At the present time the producers in the Manning River district labour under very many disadvantages do they not, in getting their produce to market? They do to some extent. Vessels are sometimes delayed in consequence of a shallow bar.

517. Have you any record as to the delays of steamers inside the entrance with produce on board for Sydney? I believe there has not been so much delay of late years, so far as I can ascertain. But I made a survey of the entrance myself, in 1887 or 1888.

518. If you can give us any information of that kind, I am sure that it will be acceptable to the Committee; I want to show by my questions the great delay that takes place, and consequently the loss to the people of the Manning River district through their inability to get their produce to market? I will read you an extract from my report of the 15th July, 1889—a description of the River Manning which I wrote to be sent to Sir John Coode:—

Previous to the floods of last winter, the bar was extremely shallow and the coasting steamer, drawing 7 feet, was bar-bound fifty-nine days in one year. Changes, however, when they do come, are rapid, and the bar has been known to increase from 5 to 11 feet in depth in one night.

I have made some inquiries since then, and I have found that there have been no delays reaching that amount since, as far as I could make out. The greatest trouble appears to be in the winter time.

519. Does the bar silt up more in winter? I understand that last winter a vessel instead of making seven or eight trips per month made only three or four.

520. Would that be a steamer? Yes, I believe a steamer. And during that time many crossings had to be made at night. I do not consider that at all desirable—going out at night.

521. It is undoubtedly dangerous? Yes.

522. And is it not a fact that the dangers to be encountered when going to Sydney, prevent what might be termed a really good passenger traffic between the metropolis and the Manning River district? I daresay they would frighten some people.

523. From your knowledge of the district, would you not think that there would be a fairly good passenger traffic on the railway if it were constructed? There ought to be. It is a thickly settled country about that river.

524. It would strike you that the people would be as likely to travel on the North Coast railway as they would be on the South Coast railway? Yes.

525. You have been pretty well all over the district, have you not? Yes, the whole of the river and all its tributaries as far as the boat could be pulled over.

526. Is there not a vast area of extremely fertile land? Yes, it is a very fertile country. The Cundle plains are spoken very highly of, and Oxley Island is all excellent land.

527. Reaching right away down nearly to the Heads? Yes. Mitchell Island is lower down.

528. Do you not think that if a railway were constructed, a vast amount of settlement would follow on country within easy reach of the railway after getting to Taree? I only know that portion of it, say, from Gloucester to Taree through the A. A. Company's country, or from Stroud.

529. Have you been overland? Yes, by the road, dozens of times, but not by the railway route. I usually go across the Karuah to Stroud *via* Raymond Terrace, and to Gloucester. The road from Gloucester to Taree is closer to the sea than the railway line would be.

530. Are you not aware that the country through which the line is surveyed is better country than that over which you travelled on the road between Gloucester and Taree; the proposed railway line does not go along near the coach road? No; it does not go over the Brushy Mountain.

531. It goes to the west? Exactly.

532. You have not been over that country? I do not know that part. I have been out to the Barrington and to Copeland.

533. Are you aware that the country from West Maitland to Dungog is superior to that traversed by the coach road to the Manning? I have heard that spoken well of.

534. Did Sir John Coode send in an estimate for the improvement of the entrance to the Manning? Yes. Sir John Coode's estimate was £193,930; but the Minister has since submitted a proposal to the House which has been referred to this Committee, and the estimate for which will be very much less than that. The details are not worked out yet—Mr. Darley has it under consideration—but I know enough of it to say that it will be considerably less than that.

535. Would it be £50,000 less, do you think? More than that amount less than Sir John Coode's estimate.

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536. Have you any record of the money that has already been expended to temporarily improve the entrance to the Manning? Yes. On the 30th June last we had spent £16,870 at the Manning. That is the total expenditure on harbour works, but does not include the dredging. I have not got the cost of the dredging. It has been going on for a number of years.

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537. There has only been £16,000 spent on that work? Up to June last. The amount would be over £20,000 now.

538. What work is going on at the present time? Training walls on the Manning. Contracts have been let for the construction of what is known as the north training bank in Sir John Coode's scheme.

539. What is the amount of the contract? It is a rate per ton. We are not committed to anything. The contractors are working on a monthly agreement, and can be stopped at any moment.

540. How long has this work been going on? Two and a half to three years.

541. Has sufficient work been done to prove its value or efficacy? To some slight extent. It is hardly sufficiently far advanced to judge of it yet.

542. Is it a portion of the scheme that is to be submitted to this Committee? It is.

543. How many dredges are at present employed on the Manning? Last week there were two—a lighter dredge and a small sand-pump; but the sand-pump left for Cape Hawke yesterday or the day before.

544. Is the river navigable for ocean steamers at Wingham? I think that any vessel drawing 6 feet could get to Wingham.

545. Wingham is the head of navigation? Yes.

546. Is the navigation right up to Wingham often interfered with on account of the silting up of the river? No; I have not heard much complaint since we dredged the upper channel, near what is called the Devil's Elbow. Vessels, as a rule, only go to Taree.

547. Do not steamers go up to Wingham every trip? I do not think that the coasting steamer goes to Wingham. I think she stops at Taree.

548. Is that on account of insufficient water? That is very likely one of the reasons, and I suppose on account of loss of time it is better to bring the things down by drogher, collect them at one centre, and load them into a larger vessel.

549. I think you said it would take seventeen hours to go to the Manning;—that would be from Sydney Heads, would it not? Yes.

550. After getting to the Manning Heads would there not be considerable delay for people living at Taree and Wingham in obtaining their goods? No; the vessel times herself so as to arrive at the bar at high water and go straight in and straight up the river. She makes two calls on the way—one at Croki and one at Cundleton. The stoppages are not very long ones—an hour or so at each place.

551. Is there not great delay in getting up sometimes;—when the steamers get to the Manning Heads they have to put out to sea on account of the shallowness of the bar sometimes? Yes; if the vessel arrives too late for the tide, or in bad weather; but it is known at what time that high water occurs, and a vessel leaves here so as to reach the Manning bar, or any other bar it is going to, at the time of high water, and then it goes straight in.

552. I think you said that the winter was the worst period of the year for the silting up of the bar? Yes, the winter seems to be the worst time.

553. Would that be when there is a prevalence of south-easterly gales;—would not a westerly wind tend to clear the channel? It would have the effect of keeping down the sea. Whether it would assist in scouring or not, I could not say. But we always get a smooth bar with a westerly wind, and then you are likely to have dry weather and an absence of floods and freshes, and the bar may be shallower in consequence.

554. But with a north-easterly wind in summer time, does not the bar silt up more rapidly than in winter? A continuance of north-easterly weather, of course, is bad.

555. Do you know the district sufficiently well to say that there is any reason why it should not become an important dairying district? The Manning is a very fertile district.

556. Have you heard that the farmers at the present time are going in extensively for the production of butter, milk, cream, and such other things as are produced on the South Coast? Yes; I saw that a start was being made in that direction.

557. Do you not think that a large amount of settlement would take place along the proposed line, having in view the favourable character of the country, with some few exceptions, if this railway were constructed? I daresay there will be more settlement where it passes through the A.A. Company's land. There are very few settlers there at present.

558. Would not the paucity of settlers be traceable to the fact that the A.A. Company are not desirous of leasing or selling their land? Very likely. I do not know what terms they offer.

559. Can you give the Committee any information as to the likelihood of the A.A. Company giving land for railway purposes in the event of this line being constructed? I could not say.

560. *Mr. Hoskins.*] How much money do the Government or your Department propose to expend in improving the entrance to the Manning River out of the vote passed by Parliament recently—£100,000? The estimate is not got out yet; but it will be something over £100,000.

561. From the experience you have acquired of the entrances to the rivers on the eastern coast of this Colony, are you of opinion that, by the judicious expenditure of, say, £100,000 in improving the entrance to the Manning River, the entrance to that river can be made as available for vessels desirous of entering the Manning, and as safe entering, as almost any of our rivers on the coast? I think it will be about equal to the Macleay—that scheme which the Committee has before them at present. We will get about the same results at the Manning as we hope to get at the Macleay.

562. Do you or do you not consider the entrance to the Manning River is especially dangerous and difficult of access? It is rather a dangerous one in consequence of the headland being on the northern side. It does not get much shelter from the southerly weather.

563. Do you consider that the Department can make the entrance to the Manning River so fairly good that the natural difficulties of the entrance, which will be somewhat overcome by the expenditure of public money, will not be greater than they are on the average at the other rivers on the coast? I think we can. I think we can make a good job of it.

Charles

Charles Edward Rennie, Chief Draftsman, Department of Lands, sworn, and examined:—

- C. E. Rennie. 564. *Mr. Roberts.*] Do you produce a map giving some information concerning the question before the Committee? Yes. The map that I produce shows the tenure of the country within 20 miles on each side of the proposed railway from Maitland to Taree, converging to a point at Maitland, so as to allow for the influence of the main line from Newcastle to Brisbane.
- 24 Feb., 1898. 565. Would you explain as fully as possible the various colorings of the map, and describe the country in such a way as would be of service to the Committee? The blue tinting shows the alienated land; the green tinting shows reserves; and the brown tinting shows unalienated Crown land. The extent of alienated land within the limits described is 1,192,000 acres; the reserves amount to 281,000 acres, and the Crown lands, distinct from reserves, amount to 752,300 acres. I should also mention that the blue shading represents church and school lands under lease, amounting to about 201,000 acres.
566. Where are those church and school lands situated? Along the western boundary of the A. A. Co.'s grant mostly, and also along part of the southern boundary. There are seventy pastoral leaseholders on that area, and fifty agricultural leaseholders. That is on the blue shading.
567. Can you give the Committee any information as to the fertility of the country or otherwise? No; I am not in a position to give any evidence on that point.
568. Or as to its capabilities? No; those are matters that do not come under my cognisance, except indirectly. I have been over the country several times, but I do not know sufficient about it to express an opinion.
569. Have you been over the country from Maitland to Taree? Not from Maitland, but from Hexham, along the usual coach road.
570. That would be by way of Stroud and Gloucester? Yes.
571. Is there any fine country about Stroud? Just passing through a couple of times I did not pay much attention to it, and I cannot speak from casual observation.
572. Would you care to give an opinion as to the value of the country as affording facilities for agricultural settlement? No, I do not know enough about it to express a reliable opinion.
573. Have you any further information? Probably some of this brown-tinted land is held under annual lease; but that is only an ephemeral kind of tenure, and we do not keep a record of that at the head office—it is a kind of tenure that would not affect the question of settlement materially.
574. Is there more than one Lands office along the route of the proposed railway? There is a Lands office at Taree and one at Stroud, and I think there is another at Dungog. Then, of course, there is the Lands office at Maitland.
575. *Mr. Hassall.*] Your map shows the country 20 miles on each side of the proposed railway? Yes.
576. An area of country 40 miles in width? Yes, excepting at Maitland, where it runs to a point.
577. Have you any idea of the character of the country that still remains Crown land? I could not speak with any degree of reliability. The best of the land has been alienated. About one-third of the blue-tinted land is that part of the A.A. Company's grant within the 20 miles limit.
578. On the eastern side, the A.A. Company's land is bounded practically by Crown land, as shown by the brown tinting? Yes.
579. Practically, the whole distance being Crown land and reserves? Yes, just along the boundary.
580. That land must, I presume, have been open for selection? Yes, for some time past.
581. And yet it has not been taken up? No, it has not been taken up.
582. Would the natural inference be that that land is of inferior quality? Yes, from the appearance of the map. I cannot speak from a personal knowledge of the country.
583. You have not travelled over the country sufficiently to know much about it? Not to express a reliable opinion.
584. *Mr. Lee.*] What is the tenure given to the lessees of the church and school lands? The average tenure of those lands would be up to the year 1910; but they have power to convert their holdings into homestead selections or settlement leases under the recent Church and School Lands Act—that is to say, to a certain extent.
585. Are those leases held under conditions of improvement or residence? I could not say.
586. Is that the usual condition inserted in church and school lands leases? I have never had any dealings with the church and school lands leases. They are under a separate branch of the Department.
587. Do you know how many leases there are covering these church and school lands? Yes, I have said that there are 70 pastoral leases, averaging about 1,800 acres each, and there are fifty agricultural leases, averaging about 50 acres each.
588. Do you know where those agricultural leases are? No. They are just grouped together in one mass. I could not tell you without looking it up what part they occupy.
589. You have nothing to do with the church and school lands? Not to any extent. I have not had any dealings with the leases, and I cannot say what the conditions are.
590. Can you say whether any applications have been made to the Department to have these lands resumed and brought under the settlement lease and homestead lease provisions of the Act? I cannot say. The Act was only recently passed, and I do not know if any applications have been made under it yet.
591. The land on the eastern side of the A. A. Co.'s boundary as shown in brown, is Crown land? Yes.
592. Do you know whether it is settled? It is not settled. There may, perhaps, be annual leases over part of it. That is only an ephemeral kind of tenure.
593. You look upon annual leases as being of a very temporary character? Yes, without requiring residence at all.
594. Do you know whether it is contemplated to make that portion of land settlement areas? Not to any extent. There is one on the eastern limit—about 1,400 acres.
595. On which reserve is that? It is just adjoining the east boundary of reserve 12,521.
596. What is the nearest port to that? Forster.
597. As a matter of fact that port would be as close to that settlement lease as the railway line would be? Yes; those are homestead selections.
598. And if any settlement were to take place in that direction, does it seem probable that the produce from that would be taken to the proposed railway? I think not. Besides the acreage is so small, being only 1,400 acres altogether. But more might be picked out by-and-by for settlement.
599. The whole of the land along the proposed line from Maitland to the Manning, almost, appears to have been alienated? Yes.

600. If this line is to develop settlement along the route, where is the settlement to take place? It would have to take place on these vacant patches of Crown land. Those are the only portions of land where it could take place. C. E. Rennie.
24 Feb., 1898.

601. Do you happen to know whether the Church and School lands are being subdivided into small areas for agricultural purposes? I cannot say. There is only the fact, as I have stated, that a certain number of small areas are held as agricultural leases.

602. Is there any demand for this kind of lease on the Manning River—settlement or homestead leases? I gather not, judging from the fact that no large areas are being set apart for that purpose. There are 1,000 acres near Timonee being set apart for homestead selection, and that appears to be the only area anywhere near.

603. Has that been thrown open? I could not say, but I could find out.

604. But those kind of leases have been made available in every other part of the Colony;—why are you not bringing them into operation with reference to this land? I presume that there is no great demand; but the district surveyor can give you better information on that point.

605. On the county map do you notice the district from Gloucester to the junction of the Gloucester River with the Manning? Yes.

606. North of that, according to your map, there appears to be a large area of unalienated land;—is that because the country is inferior? I presume so, from the fact that it is not being taken up, but I do not know the country sufficiently to say.

FRIDAY, 25 FEBRUARY, 1898.

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Francis Clarke, Esq., M.P., sworn, and examined:—

607. *Mr. Hoskins.*] Are you the Member for the district through which this proposed railway would run? I am the Member for The Hastings and The Macleay district, which is beyond where the proposed line would terminate. The present proposal is to construct a railway only as far as the Manning. My electorate adjoins that. I might say that the reason why I wished to give evidence was that action had been taken by me which was partly the cause of this matter being brought forward—that is to say, I had given notice of a motion in the House which was discussed, and through that motion the Minister promised to submit this proposal to the Public Works Committee. Having taken that part, I thought I would like to be examined with reference to the proposal. F. Clarke,
Esq., M.P.
25 Feb., 1898.

608. Are you aware that there is a proposal which has been submitted by Parliament for the consideration of this Committee as to the propriety of sanctioning the expenditure of £100,000 in improving the entrance to the Manning River? I am aware of that.

609. Do you think that we would be justified in sanctioning the expenditure of that sum of money on improving the entrance to the river Manning, and at the same time sanctioning the expenditure for the construction of this proposed railway to the Manning, which is to cost £982,283? I might say that my object in bringing the matter prominently before the House was that the two proposals might be considered. I knew that money was being expended on improvements of the harbours of the north coast, and there were so many doubts expressed by different people as to the success of those works that I thought the Government might be justified in considering a scheme for the construction of a railway from which they would receive a revenue rather than expend money on harbour works which might not be a success, and from which they would receive no revenue whatever in a direct way.

610. The principal Assistant Engineer for Harbours and Rivers, Mr. Carleton, was examined here yesterday, and in reply to a question from me he stated that he considered that when the money authorised by Parliament to be expended in improving the entrance to the Manning had been expended the entrance to the Manning would be quite as good as the entrance to the Macleay River? Quite so.

611. Looking at the present public indebtedness of the Colony—£62,000,000—and also at the small population of this district, do you think that there is any justification for the expenditure of £2,000,000 to supply the people of this district with additional facilities for getting to and from the Manning River? I regard the line not only as a means of access or outlet for the people of the Manning, but also as part of the whole railway system along the north coast, and I may say that the section to the Manning, while it traverses the least productive part of the coast from a railway point of view, is also the most expensive to construct. I regard the whole north coast line as one which must come in the future, it being a very much shorter route to Brisbane than the present route, and also affording a quicker means of reaching the metropolis, even supposing that proper harbour means of communication are established.

612. How do you make it shorter;—do you mean this proposed railway and the existing Northern Railway as far as Maitland, as compared with the sea voyage? You misunderstand me. I am comparing the route from Sydney to Brisbane by the present railway route as against the proposed route *via* the north coast to Brisbane. I understand that the difference in length is 69 miles.

613. Do you think that any persons now living will, even if they live to a good old age, see a railway made along the coast from Sydney to Brisbane? I think so.

614. We have had some experience of the construction of railways parallel with the sea in the case of the South Coast Railway;—do you know the loss that is caused to the country by the working of the South Coast Railway in a district which has a much larger population than the district that would be intersected by the proposed line, and where there are large industries going on and several townships of importance? I am aware that there is a loss on the South Coast line.

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615. About £45,000 a year? I might point out that the line along the south coast passes through very unproductive country so far as freight for the railway is concerned.

616. Would this proposed line pass through a more productive country? More so than the south coast line—that is, so far as providing freight for the railway is concerned. I regard the north coast as being very much superior to the south coast from that point of view.

617. But between Maitland and Taree where is this productive country? As I have mentioned, the section you are now considering passes through the least productive part of the north coast, and that is why I regret that the whole scheme of making a railway to Lismore was not submitted to the Committee, as it would have been in a much more favourable position than part of the scheme only.

618. Do you know that there is a railway from Lismore to the Tweed on the borders of Queensland through a very productive district, and that the loss on that line is about £17,000 a year? Because it is an isolated line, and very difficult to maintain on that account.

619. I admit it is very difficult to maintain, but at the same time it passes through a very productive district;—have you been over the tract of country proposed to be intersected by this line? I have a good general knowledge of the country. I was born at Stroud, through which town this railway would pass, or very close to it, and I have a knowledge of that part of the country—in fact, of that country up to as far as the Macleay,

620. Do you know that three-fourths of the land—nearly all of the land except that on the top of the mountains—is private land? It is all private land and thickly settled.

621. Is the A.A. Company's land thickly settled? That is the only exception.

622. That is 51 miles in length? And that is along the section of the railway which I think will be the least profitable.

623. The A.A. Company's land occupies 51 miles out of the 113? It is purely grazing country, and even if it were held in smaller occupations, it is not agricultural land—it would not provide very much in the way of freight for the railway. I mean to say that it could not be made to produce much more than it does at present, even if it were held in small holdings.

624. But that 51 miles of country belonging to the A.A. Company produces only young cattle now? Exactly. It is used, I understand, as a breeding station.

625. And according to your description, which confirms what other witnesses have said, supposing a railway were made going through 51 miles of the A.A. Company's land, it would not get much freight from that land judging from the quality of the land and its sparsely settled condition? It is a fact that the railway would not get much from that land.

626. The railway could not get less from the district between here and Wollongong? This country is better than that country.

627. But you know there are a large number of working miners living in that district? I admit that.

628. You have never heard that the A.A. Company would give the land required by the Government for this railway free? I have not heard so.

629. Did you ever hear that they would expect large compensation for any land taken from them by the Government? No; I have not heard that.

630. There is some good land on this proposed route, near Dungog and Taree, and other places; but the area of rich alluvial land is very limited, is it not? It is limited to the valleys of the different rivers.

631. And they are very narrow? They are not extensive valleys. A great quantity of the produce from those rivers, above where the railway would intersect the rivers, would naturally come to the railway for carriage to the Sydney market; and another advantage that the north coast people would have would be in getting direct communication with the market of Newcastle as well as the market of Sydney.

632. But is not the Newcastle market liberally supplied with meat and agricultural produce from the rich valley of the Hunter, and the Upper Hunter and the Liverpool Plains? Of course it is supplied to a very great extent; but I have often noticed that maize, for instance, commands a better price at Newcastle and Maitland than it does in Sydney. Although there is maize grown, of course, in the Hunter River Valley, still the maize commands a better price there than here.

633. I suppose you do not expect that this proposed railway would carry much agricultural produce of any kind to Sydney, seeing that it would have to compete with cheaper carriage by water? Of course it would have to depend a great deal on the rate of freight.

634. We have it in evidence that for the carriage of maize on the railway the very lowest charge that could be imposed would be from 13s. 6d. to 13s. 10d. a ton, while at the same time it is taken by the steamers for 10s.? That is about the rate by the steamers.

635. Do you think that under such circumstances any maize would be taken by railway to Sydney? I do not think there would be under the circumstances. Of course, while that state of things continued, no one would patronise the railway for the carriage of maize.

636. You mean that rate of freight? Yes. I mean that whilst the water offered cheaper facilities than the train the farmers, of course, would patronise the water.

637. And is it not the fact that everywhere agricultural produce is carried more cheaply by water than the railway people can afford to carry it by land, not only in this country, but also in Victoria and in England? Quite true, because they have no roads to maintain.

638. If you are in favour of the construction of this proposed line of railway, costing within a few pounds of £1,000,000, what trade do you think there would be on it? If you will permit me to point out, I set that expenditure as against the proposed expenditure on the bar harbours. You have considered some of those proposals, and I suppose will consider others. You have the Manning River, the Camden Haven River, the Hastings River, the Macleay River, the Nambucca River, and the Bellinger River,—there is a proposal before you to consider the improvement of each one of those entrances, the cost of improving which will no doubt run into a large sum of money. I am not prepared to say how much; but that information might be obtained from the Public Works Department. Besides that, there is the expenditure which has already been incurred in Coff's Harbour, Woolgoolga, the Clarence River, the Richmond River, the Tweed River, and Byron Bay. My opinion is that you should take into consideration not only the expenditure that has been made, but also the expenditure which, no doubt, will be made in the future, if we are to make those entrances at all available. And from them we will receive no revenue; and you should set that against the expenditure on the railway, from which the State will receive a revenue. I do not say that you would have a railway which you could look upon as a profitable line from the start; but you would certainly have a railway which would ultimately pay interest on the capital.

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639. Where is the trade to come from to provide for the working expenses and interest? I am not answering your question directly. It is, of course, impossible for me to say where the trade is to come from. We must, however, recollect that these rivers are yet in an almost undeveloped state. I may answer your question by asking, where is the trade to come from to pay the interest on the great expenditure proposed on the various harbour works, twelve in number, which I have already enumerated; and even with that expenditure you will have an uncertain means of communication.

640. The interest on that expenditure could easily be met by imposing moderate tonnage dues? Well, so far, nothing of that sort has ever been attempted.

641. There has been, but through Parliamentary action they were discontinued? But the works I have mentioned are paid for with borrowed money, and there is no direct revenue received from them. Of course the Colony receives a benefit in an indirect way.

642. How near would this proposed railway go to some of those ports to which you have referred as places where expenditure has already been incurred, say, Camden Haven? The railway, I suppose, would be within 12 or 15 miles of the heads of Camden Haven, and it would be about 12 miles from the mouth of the Hastings, which is the next river further north. I know the locality thoroughly well, being the representative of that part of the Colony. The railway would cross the river at a place called Wauchope, 11 miles above Port Macquarie.

643. The people residing in those districts would, no doubt, be glad enough to get some of the public money that would be expended in making the railway; but do you think they would take their produce 12 miles to a railway when they had a vessel within half a mile of them? I do not think so, unless, of course, on account of the certainty in reaching the market on the one hand, and the uncertainty on the other.

644. We had evidence yesterday from Mr. Carleton, and he pointed out that whilst some years ago there were great delays and stoppages at the Manning River Heads through gales of wind and floods for a long time at different periods, yet within the last few years the stoppages have been very trifling indeed, the steamers trading very regularly, except occasionally when there is very rough weather? I admit that the steamers, considering all the difficulties, maintain the trade with fair regularity, but still there are drawbacks. On the last occasion I was in Port Macquarie, I was delayed there a considerable time through there not being sufficient water on the bar, and, of course, that was a thing that the captain, no matter how skilful he might be, could not provide against.

645. But delays happen all over the world. For instance, vessels crossing from England to France have sometimes to lay to because of a gale of wind? But there was no gale of wind on the occasion to which I refer; the weather was perfectly calm, and the steamer drew only about 8 feet 6 inches of water, but yet she could not negotiate the bar even with that draught.

646. I gather from your evidence that you do not consider that much of the land that would be intersected by the proposed railway would, considering its capabilities and the sparseness of the population, be a feeder of any consequence to the railway? No. There are belts of country through which the railway would pass between the rivers which would not provide any freight for the railway.

647. I ask you, as a public man, do you consider that this Colony, with its great expenditure and small population, would be justified in spending money in improving the entrance to the Manning River, and at the same time in spending this large sum of money, nearly £1,000,000, in making this railway? No, I do not think that the two proposals can well be justified—that is, both the harbour works and the railway. I do not think that the State should undertake both schemes. That is why I think the State should undertake the work which is the most likely to return it some revenue.

648. Supposing that the Government were to approve of a recommendation of this Committee and were to make this railway, and discontinue improving the entrances to the Manning and other rivers of which you have spoken, do you think that the people of those localities would quietly sit down and tamely submit to the loss of the expenditure in those districts of the money which the river works would necessitate? I hope that the people do not look upon the expenditure of the money in their district as the first consideration. I myself do not think they do. I think they regard the expenditure of the money as a means of providing them ultimately with a shipping port, and if the evidence goes to show that a shipping port can be established in those places beyond all doubt, then I myself would not be a strong advocate for a railway.

649. *Mr. Wright.*] I take it from your evidence, that of the two proposals you prefer a railway? I should prefer a railway on account of the certain means which it would always afford all classes of people of reaching the centre of population.

650. You think that the railway would be the most beneficial in the interests of the country and the State? I think it would. At the same time, I do not think that the State would be justified in carrying out the whole scheme at once; it should be a work to be done by instalments.

651. Supposing that a railway were constructed right through to Lismore, so as to connect with the Queensland border, do you think that the people along 400 miles of our coast-line would be satisfied at being deprived of water communication? It would not deprive them of water communication.

652. If the harbour works were abandoned, it would, to a large extent, deprive them of water communication? It would, of course. They would have to take it as they found it in its natural state.

653. But would not the people on a coast-line between 300 and 400 miles in length, and having several good rivers flowing into the ocean there, be justified in agitating and demanding from the State the construction of harbour works, even if the railway were built? At no part would the railway be very far from the sea-coast, but I am not in a position to say what would be the greatest distance.

654. It is proposed to cross the rivers at the head of navigation? Practically at the head of navigation. The railway could always be reached from the rivers by droghers or punts. The people instead of droghering down towards the heads would drogher up the river towards the railway.

655. But you have missed my point;—I say, do you think that the people, on a coast extending 300 or 400 miles, would be satisfied to allow their harbours to be choked up with silt, even if they were provided with a railway;—would they not continually agitate for harbour works as well as the railway? I do not think they would.

656. You are under the impression that they would be satisfied with the one scheme? I think so.

657. A railway from Maitland to the Queensland border, exclusive of that portion which is already built, we must assume would cost nearly £4,000,000;—do you assume that the State would be justified in making provision for that expenditure, not in one year, but spread over a series of years? I think so.

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658. And do you think that there is any possibility of the railway ever paying in the future? Yes, I do, because there are great possibilities in front of the northern district.

659. The rate by steamer from the Manning River is 10s. a ton, and we are told by the Secretary for railways that the lowest railway rate from the Manning would be 30s. a ton; is it not likely that in the event of the railway being constructed, the steamers to secure traffic would reduce their rates still more? I have already admitted that the proposal to construct the railway to the Manning, and taking that as a comparison, is hardly a fair comparison to make, because, as I have explained, it travels practically through unproductive country until it reaches the Manning. The country at Dungog would be served by water pretty well, so that the railway would not secure much of that trade, and practically there would be very little trade to the railway until Taree or the Manning River were reached. Therefore, I think, it is hardly a fair test to take the statement of the Railway Commissioners, which I have no doubt is correct. I am not disputing it for a moment; but carrying the limited amount of freight they would have to carry from Taree, they would have of course to charge a much higher rate than they would charge later on when the railway were extended to more productive parts of the North Coast country.

660. You see that we have to take into consideration the fact that when you get into fertile parts—that is, the Manning and the Macleay—you are still further from Sydney, and the railway rates are increasing in much larger ratio than the steamer rates? As mileage increased the railway rates would increase, no doubt, in a greater ratio than the water rates would.

661. The produce of the Macleay district is largely maize, is it not? Yes.

662. We are told that the districts are gradually going out of maize cultivation and into dairying, which would, of course, reduce the amount of freight? I do not think that it is correct to say that the district is going out of maize cultivation. There is nothing to show that that is the case. The people are certainly going in very largely for dairying, but they are simply using the land now for the purposes of dairying which before they hardly received anything from,—that is to say they only used it as ordinary run for stock. I do not think that the area under maize has been curtailed in the slightest by the introduction of the dairying industry on the Macleay.

663. Are we to understand that the rich flats would be still cultivated for maize crops, while the back land would be used for dairying purposes? I think that would be the case; of course, subject to changes that any wise farmer would make, that is, throw certain paddocks out of cultivation occasionally in order to give them a spell.

664. As member for the district, and knowing the country well, do you see any reason to apprehend that there will be a diminution of the total freight, or do you think that there will be an increase of it? I think it is likely to increase.

665. Notwithstanding the fact that there may be a good deal of dairy farming, you still think that the bulk freight will be likely to increase? Yes.

666. Are you aware what is the population along this line? I have estimated it, but I have not the figures with me.

667. The Statistician's Department tell us that from Maitland to Taree, taking in 10 miles on either side of the line, the whole way the population is about 14,000—that is, starting from Largs and Seaham close to Maitland and going some 10 miles north of Taree, and taking 10 miles on either side of the railway line, the total population is about 14,000, of which upwards of 1,000 are within 5 miles of Maitland? I know that the population in that part is not closely settled; once you get from the Hunter River Valley the population is very thin until you reach Taree.

668. Did you think that the population was larger than I have stated? From the estimates that I have made—of course taken from the "Statistical Registers"—I knew that the population was not great—not so great as might have been expected.

669. I take it from your evidence that, irrespective of the amount of settlement, and the production of the country, you think that a railway could lead to largely increased settlement, and largely increased production? I certainly think that it would, because it would bring into settlement and cultivation places which are now too small for men to profitably occupy them under present conditions, and means of reaching a market.

670. If there were a proposition before this Committee to construct a railway from Taree on to Kempsey and thus to complete the section, would you be satisfied if this Committee recommended the total abandonment of harbour improvements and the construction of the railway? That would hardly be fair to the people living north of the Macleay, and for that reason I would not like to do so; but if it were only the people of the Macleay itself who had to be considered I think that they would be very well served by a railway.

671. If the railway were to go right through to Lismore would you, as a member for a district in that part of the Colony, be satisfied if all the harbour works were to be discontinued as soon as the railway had been completed? Yes, as soon as it had been finished; but in the meantime temporary means of communication should be provided.

672. Dredges in the meantime should be kept going? Yes.

673. *Mr. Trickett.*] Do you recommend this line by itself or as part of a line along the whole of the northern coast? As part of the line along the whole of the northern coast.

674. Do you think that to construct it on its own merits would be a mistake? Yes, I think so.

675. I see that there has been a very long agitation for this railway—since 1882;—I think deputations have waited upon various ministers, and I see that one of the reasons urged is that lines have been built in other parts of the country, and therefore a line should be built in this part. I suppose you do not endorse that feeling? No, not at all.

676. The present Minister for Works advanced as a reason that the residents of the coastal districts had for many years past paid their fair share for the construction of lines in other parts of the country, but the benefit they received was only indirectly felt. I suppose you do not urge any such reason? No; I do not think that is a strong argument to put forward.

677. And I notice, too, that when he was not a Minister, and when he went before another Minister, he urged that the construction of this line should be carried out only if the betterment principle were introduced into the Public Works Act;—what do you think of a proposal of that kind? Well, if the betterment principle had to be applied, of course it should be applied to all lines; but there are a good many objections to the betterment principle. It is not always the people through whose country the railway passes who benefit the most, after all, from the railway. There are also the consumers who benefit to a large extent, and it is very difficult to apply the betterment principle.

678.

678. I understand that your chief reasons in support of the railway are that trade would probably grow up, and the inhabitants would get the benefit of direct and certain communication with their best market? Yes. It would also bring the people not only of the North Coast districts, but also the people of Sydney and the South Coast more in touch. There would be immense social advantages. When I say social advantages, I mean that industries would be benefited by bringing the people more closely together. At present they are almost cut off from the benefit of civilisation. I might say that in supporting this railway my object from the very first has been to bring before the Government or the Public Works Committee the two proposals side by side, that is, providing communication by water, or providing communication by rail. I look upon them as alternative schemes, and it is for the Government to decide which is the more advisable scheme to carry out. I could not, at present at least, justify both proposals—I would not attempt to do so. If it can be shown that communication could be better established, and more effectually established by means of water, then of course I would say that the railway ought not to be constructed now. But if on the other hand it can be shown that better facilities can be afforded by rail, and that the railway has a fair prospect of paying, then of course I would say "abandon the water and adhere to the proposed railway scheme."

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679. If a railway were decided upon, of course it would not be necessary to spend large sums of money in keeping open the river entrances? No, I should certainly think not.

680. *Mr. Hassall.*] I presume that you look upon this extension from Maitland to Taree merely as an instalment of what must eventually be a North Coast railway? Yes, I look upon it as an instalment of the North Coast railway.

681. Do you think it would be justifiable to extend the railway from West Maitland to Taree only, and let it stop there? Certainly not.

682. As you have already told the Committee, with your knowledge of the country, you say that that would probably be the most unproductive part through which the railway would go? I certainly think that, and the records of the Public Works Department will also show that it is the most expensive section of the railway to construct. That is to say, the cost per mile is greater on that section, I think, than on any other section.

683. Have you any idea what the average cost per mile would be in running it right through? I think it averages, according to the estimates that have been made, £11,000 per mile.

684. Right through? Yes; I think that is the average cost. But the papers are here, and I do not wish to be too positive.

685. The total length right through from West Maitland to Lismore is, approximately, 392½ miles, and the total cost in round numbers £3,782,377; that, I presume, does not include the cost of resumption or severance, or anything connected with the land through which the railway would pass. That gives an average for the total length of £9,650 per mile. Do you think that, in the present state of the country, it would be justifiable to carry out this railway in addition to the improvement to the various rivers on the northern coast? No; I do not.

686. I understood you to say, in reply to Mr. Trickett, that you thought the two proposals, that is the improvement of the rivers, and the construction of the railway, might have been submitted practically together? That is what I thought, so that the Committee might come to a decision as to which is the better scheme to carry out.

687. So that a comparison could be made between the two schemes—that is the improvement of the rivers, and the construction of the railway right through—the benefits that would be derived from the adoption of either, and the probable returns from either of the two schemes for the expenditure? That was my wish.

688. Does the country improve much running from Taree northward? The country to the north of Taree—I am speaking of the rivers, not the whole of the country, because you will understand that between the rivers there are belts of unproductive country—there is less unproductive country to the north of the Manning than there is between the Hunter and the Manning.

689. Where do you first touch the sugar-growing country going north? The first part where you touch the sugar-growing country would be about Woolgeolga, that is a little beyond Coff's Harbour.

690. And from there right up to the border a good deal of sugar-cane cultivation is carried on? Yes.

691. Can you give us any idea of the extent of country lying back from the head of navigation towards the mountain range? On an average it would be about 60 miles from the head of navigation up to the foot of the mountain range.

692. Is that country pretty well occupied? That country is pretty well occupied on all the rivers.

693. I presume, from what you have already said, that the settlement is, practically, along the river valleys? Yes; along the rivers and the branches of the rivers.

694. How would the traffic above the head of navigation on the river compare with the traffic from the head of navigation downwards? I am inclined to think that the traffic from the head of navigation downwards would be greater—the land is richer and more thickly settled—than it would be higher up, on account of the distance of land carriage for one thing. People are not inclined to go in for extensive agriculture on the reaches of the river above navigation; that is, for any great distance, although some of them do cultivate as much as 40 miles away from the head of navigation.

695. How do they convey their produce? By horse-waggons. It costs them about 1s. 6d. a bag of maize for land-carriage from their farms to the shipping-place—that is, to the head of navigation. Farming at that distance is not very profitable.

696. Are there decent roads along the banks of the rivers? The roads are very good in nearly all cases.

697. Then the whole of this country is practically accessible by decent roads from the head of navigation to the mountain range? Yes, with few exceptions. There is a splendid road from the Macleay to Armidale, and from the Hastings there is a very fair road to Walcha, and from the Manning there is a very fair road, I would not say how far, but certainly up to the foot of the mountain range.

698. As far as settlement could profitably extend? Yes.

699. From the head of navigation downwards, I presume, the country is more thickly settled in consequence of facilities afforded for conveying the produce to market? Yes, and smaller holdings.

700. Is it not reasonable to suppose that, under all circumstances, even if the railway were constructed, they would prefer to drogher the produce down to the coastal steamer rather than to droghering it up to the railway, thus increasing the cost of carriage? Yes.

701. That is reasonable to suppose? Yes, and also in view of the fact that the water-carriage would, no doubt, be cheaper than the railway carriage.

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702. Therefore, in the construction of the railway, we would practically have to depend upon the traffic that could be brought down to it from the country lying between the railway line and the foot of the mountain range? To a very large extent you would have to depend upon that trade.

703. Have you any idea of the extent of the timber reserves in that part of the country? Yes; there is some very valuable timber all along the coastal districts. From the Manning River as far as I have been up the coast, that is, to Woolgoolga, about 12 or 15 miles beyond Coff's Harbour, there is very valuable hardwood timber all along the road.

704. I presume that that timber would probably lie between the proposed railway line and the mountain range? That timber, you may say, is on the series of ranges dividing the different water-sheds, and extends for a considerable distance up towards the table-land of New England.

705. That might become a large industry;—do you think there is any prospect of that? I am inclined to think that, unless there are some means taken to provide for a second growth of timber—that is, for cultivating the timber, as it were—it is not an inexhaustible supply. I do not regard it as being an inexhaustible supply by any means, unless some measures be taken to provide for the growth, cultivation, and care of young trees.

706. Then if the railway were constructed, you could hardly calculate upon a very large timber trade being secured? No; I am of opinion that the timber trade would be more likely to drift to the sea-coast than to go any other way.

707. It being a product that will not stand any great cost of transit? Quite so; and of course it being a product the value of which is not deteriorated, practically, however much it is knocked about.

708. Do you think that the construction of a railway line would have the effect of developing the dairying industry to any great extent? It might to some extent, but I think that, with the modern means which they have of carrying products of that character in the cool chambers of the steamer, it is not likely to be affected at all events by the non-existence of a railway.

709. So that under any conditions, a railway, even if constructed right along the north coast, would always have a strong competitor in the water carriage? Certainly it would have a strong rival in the water carriage.

710. *Mr. Roberts.*] Have you looked at the figures furnished in the Railway Commissioners' report showing the loss on this proposed line of £31,000 per annum? Yes, I saw those figures.

711. Do you regard that as a satisfactory estimate;—do you think it is over-estimated or under-estimated? It is difficult to answer that question, but I am inclined to think—and I have been inclined to think from the time the Commissioners made their hurried trip up there that they hardly gave sufficient time to enable them to come to a correct conclusion. They hardly took sufficient time to inquire into the matter. It seemed to me as if they went on that trip with their minds made up beforehand.

712. Do you know the route they took? I understand they went overland from Hexham or Raymond Terrace, driving along the main road as far as the Manning, and that they took evidence in one or two of the townships on the Manning—I think at Taree, and also at Wingham.

713. At Wingham? I think so, but I would not be positive as to that; and it is quite possible that those whom they examined would not be prepared with certain information at such short notice.

714. How long were they really at Taree and Wingham? I think they were there only a couple of days altogether, as well as I recollect.

715. Is it not a fact that the more fertile land on the Manning is after you pass Taree, up the river? Yes, I understand so. I do not know the Manning River above where the North Coast road intersects it. I have never been up the river beyond Wingham.

716. Have you been to Cundleton? I have been through Cundleton.

717. Have you seen the Cundle Plains? Yes.

718. Is there not a vast area of remarkably fertile land between Taree and the Manning Heads? Yes, there is—down about Jones's Island, and in the vicinity of Croki. You travel through very productive country for several miles from the time you reach the Lansdowne River until you reach Cundleton.

719. Is the Lansdowne River a tributary of the Manning? Yes.

720. And all along the banks of those rivers the land is, you may say, unsurpassable in the Colony? Yes; it is excellent land.

721. And suitable for dairying or any other purpose? Yes, any purpose whatever.

722. Is it not true that for many years past there has been a feeling of discontent amongst the residents of the North Coast District, because of the little work that has been done by the various Governments to enable the farmers to get their produce to market? Yes; that is a fact. They regard themselves as having been neglected by the various Governments in the past.

723. And is it not true that they feel they are isolated from the outside world owing to their peculiar situation,—they being residents in a district where navigation has been absolutely dangerous and uncertain ever since the districts have been settled? That is so. The people there have been very discontented with regard to their means of communication with the centre of population.

724. Do you not think, as one familiar with this great North Coast District, that the time has arrived when something should be done for the people there, either in giving them a railway or some other means of easier communication with the metropolis? I certainly think so. I think the people of the North Coast Districts are entitled to better treatment in that respect than they have received in the past. I consider that they have been scandalously treated in the past with regard to affording them facilities to get their produce to market.

725. Have you been over the proposed line from Maitland to Taree, or have you travelled over what is known as the mail-coach road from Raymond Terrace to Taree? I have only travelled over the main North Coast Road; I have not followed the route of the railway.

726. That will be from Hexham to Tinonee, and thence on to Taree? Yes.

727. Is it not true that the proposed line would go through better country than the North Coast Road goes through? Yes; I think it would. It would tap richer country. If they kept down too near the coast after leaving the Hunter, they would get into that swampy and sandy country which is peculiar to the sea-coast; whereas, by keeping further to the west and higher up, they would tap a more productive country.

728. Therefore, the Commissioners in going over the North Coast Road, did not possibly have an opportunity of seeing the fine agricultural land that is to be seen between Maitland and Dungog? No. That

is one reason why I thought at the time the Commissioners made their visit that they did not spend sufficient time in the locality to form a correct conclusion,—because anyone, particularly a stranger, going into that district for the first time, and travelling along the main road, would never realise—would never dream—that there were such places perhaps within a very few miles of him. The road, as a rule, is taken through the most unproductive country. As a matter of fact the road goes through the best country for a road—the country where the road is the easiest to maintain—and it avoids the more productive parts.

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729. This proposed line goes west of the mountain range? Yes.

730. Where the most productive country is to be found? Yes; practically, the North Coast Road, with the exception of the parts where it crosses the rivers, passes through the high ridges and timber country.

731. Would it not strike one, driving through the country from Maitland to Taree, that it was intended to be the home of hundreds of thousands of people? Yes it would strike one that with proper facilities for reaching the market there was a very great future before the country.

732. Having that in view, do you not think that before many years pass over there will be every probability of the line paying interest on the capital,—that instead of there being a loss of £31,000 per annum, that loss would be rapidly decreased on account of the settlement that must naturally take place? I am inclined to think so. I am inclined to think that that apparent loss—or that imaginary loss, for I cannot look upon it as anything else—would be very shortly completely wiped out, and that the line would show a profit.

733. You knowing the sense of the people of the district and with what unpleasantness they view the discomforts of the sea-voyage, do you not think that there would be a large passenger traffic on the railway? Yes, I am inclined to think that fully 90 per cent, of the passengers would travel by train in preference to going by sea, more particularly with the class of boats that are, and must be, on that line whilst the bar harbours are in their present condition.

734. Would it hardly be a fair thing to take the present passenger traffic by the steamers as an example of what the passenger traffic would be if a railway were constructed? No, certainly it would not be a fair gauge to test the passenger traffic, because there are lots of people now who would more frequently visit the metropolis but for the terrors of the sea-voyage, and the discomforts to which they are subjected, and the loss of time occasioned also. On the other hand, the coast districts would be visited by a large number of people from the city and suburbs. At the present time, if you visit one of those places, the probability is that you cannot get away when you want to. Consequently nobody will venture to make a trip thither, the uncertainties of travel being so great.

735. No one will go thither, except on account of urgent business or possibly for family reasons? Exactly.

736. Is it not true that owing to the shallow water, as a rule, on the bars, the steamers are very small, and consequently very uncomfortable, making the voyage one of dread, rather than one of pleasure to the people living in the district, and that is why more people do not travel by them? That is so. But even with the discomforts and all the disadvantages of the steamers, there is still a very large trade done in passengers. I have been on some of the steamers when there was no sleeping accommodation, and when some of the passengers had to lie on the upper deck of the steamer, there not being sufficient berths for them.

737. Is not the water communication very uncertain? Very uncertain indeed. During the past season, on the Macleay, the "Burrawong," the boat which trades there generally, has had to lie-to in Trial Bay to receive the cargo brought out over the bar by the drogher.

738. And what would apply to the Macleay would apply to the Manning, and to pretty well all the rivers on the North Coast, except, possibly, the Clarence, where great improvements have been made? That is so. There is always an amount of danger, and the boats trading on those rivers are specially constructed with very shallow draught, and their build does not suit themselves either for speed or comfort.

739. Is not the scenery to be found on the North Coast—I mean the natural beauties of the district—to be favourably compared with what is to be found on the South Coast, or in other parts of the Colony? Yes; I think the scenery of the northern rivers—especially between the head of navigation and the table-land—will compare favourably with any scenery in new South Wales. It certainly compares favourably with a route that is well known, that is from Moss Vale to Kangaroo Valley. That is a well-known and favoured route. I have been over it, and the scenery on the North Coast rivers is quite equal to that.

740. Are you aware that there are very attractive falls, and scenery of that kind, to be found at the head of the Manning? I was not aware that there were falls at the head of the Manning; but I know there are falls at the head of the Macleay—the Apsley Falls—which are a very great pleasure resort to people who can get access to them easily; and we also have on the Macleay Limestone caves, which are at present almost unknown, except to the local people, on account of the isolated condition of the place.

741. If the proposed railway were constructed, is it not fair to assume that a large tourist traffic would be encouraged? I certainly think so. People from the metropolis could make the round trip, as you may call it. That is to say, they could take the train up as far as Lismore, and the coach from there to Tenterfield and come back by the other line, or they could break the journey at any of the rivers, for there are always a means of getting a private if not a public conveyance from any town on the rivers up to some town on the main railway line.

742. What would be the difference in the distance from Sydney to Brisbane if the line went through from West Maitland to Taree, and thence on to Brisbane? According to the official reports, I believe that it is either 59 or 69 miles shorter by the coastal route than by the present route to Brisbane.

743. That is from Sydney? Yes. It would also avoid the heavy pull up to the top of Ben Lomond, and down again, in the trip to Brisbane.

744. And the trains could be run at less cost to the Railway Department? No doubt they could be run at less cost, because the grades would not be so steep.

745. The railway would go through comparatively level country? Yes.

746. Has not a line been surveyed all the way from Maitland to the Queensland Border or to Grafton? It has been measured, I think, beyond Grafton—from Maitland to Lismore, I think. In fact, I think it has been surveyed more than once—some parts of it at least—and a portion of it, I think, is permanently staked.

747. Would you have preferred if the whole question of the North Coast line had been submitted to the Committee? Yes, most certainly; because the consideration of a section of it only is, I think, an unfair way of putting it before the Committee. I think the whole of it should be considered as one scheme, not with

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with a view of carrying it all out at once, but for the purpose of getting an idea of the amount of traffic likely to be brought to the railway throughout, and also to take into consideration the reduced cost which some sections offer as compared with other sections.

748. Taking it from Maitland to Grafton, would the other sections show less loss than this section would ;—which do you regard as the most fertile part of the line between Maitland and Grafton? I think the Macleay River is the most fertile river between Maitland and Grafton, leaving the Clarence River, of course, out of the question. I admit at once that the Clarence has a greater basin and a greater area of fertile land than the Macleay.

749. *Vice-Chairman.*] What about the Richmond? I think the Richmond is better than either of them.

750. *Mr. Roberts.*] Is it a fact that the further you get north—of course, allowing for belts of unproductive country—the more fertile the country becomes? Yes.

751. Then, perhaps, you would say that you thought that the Macleay was about the centre of the most fertile country? Yes, I think the Macleay is about the centre of the most fertile country. It is, I think, about midway between the Clarence and the Hunter.

752. If this line were constructed, a large business would be opened with Newcastle, would it not? Yes, I have already mentioned in my evidence that I think that Newcastle would receive a considerable portion of the trade from the northern rivers. In fact, I think there would be also a trade to some extent from Newcastle northwards. I feel sure there would.

753. And it would bring the people of Newcastle within easy distance of these attractive fertile districts?

Yes. It would allow them means, which they cannot at present get—they would have direct means of communication. At the present time if they want to reach these districts they have first to go to Sydney, and then from Sydney to the various rivers.

754. You have already told us of the fertility of the Manning and the fitness of the land for the purpose of dairying or such other purpose as a farmer might think best—that land would grow anything? Yes.

755. Would the same remarks apply to the neighbourhood of Port Macquarie—I mean up the Hastings?

Yes. They have very fertile land up the Hastings River, suitable for either agriculture or dairying.

756. Vast areas of agricultural land? Yes.

757. And are not the same difficulties experienced by the people there in getting their produce to market? Yes, they have the same difficulties to contend against.

758. As are met with by the people on the Manning? Yes.

759. What is the distance from Taree to Port Macquarie? I suppose it is about 60 miles.

760. So that if this railway went to Taree, it would be of great service to the people between Taree and Port Macquarie? Yes, it would.

761. Until the line, I mean, went on further? Yes; I feel sure that a great number of people would drive to the Manning, and take the train from there to Sydney, as they often do now, in order to shorten the sea trip somewhat, catch the steamer at Croki, and get into Sydney more quickly. That is done now, I presume, in order to shorten the sea journey. On the other hand the people of the Macleay often drive to Port Macquarie and take the steamer there so as to reduce the sea journey from that part.

762. What is the population between West Maitland and Grafton? I have not got the statistics of the population.

763. Is it not somewhere about 100,000? I really forget what the population is, though I have looked it up in statistics on previous occasions when considering this question.

764. Even at the present time, whether it be 100,000 or not, and I have good reason for assuming it is 100,000—would not the population very soon be enormously increased if a railway were constructed? Yes, the construction of a railway has, I think, always tended not only to increase population but also traffic as well; and I feel sure that the construction of a railway to the north coast would enable people to live on a smaller area of land, and make a living, than they could do at the present time.

765. Is it not a fact that along the north coast you get the most regular rainfall in the Colony? Yes, that is so. I think we suffer less from drought on the north coast than the people do on any other part of the sea coast, on account of the regularity of the rainfall. If there is any rain coming at all we seem to get it up there.

766. And through having this regular rainfall the soil is remarkably rich? Yes.

767. And on account of this regular rainfall, and the undoubted fertility of the soil, it is a fair thing to assume that, if regular communication were given, such as a railway would afford, an immense population would, in the near future, be settled in these districts? Yes; I feel quite certain of that. The place is capable of carrying an immense population. The only thing required is certain means of communication with the centres of population, and a market.

768. And do you think that that could be best afforded by the construction of a railway? I myself think that a railway is preferable to the sea. As a quick means of communication it is certainly preferable.

769. And I understand that one of your reasons for recommending a railway is that the Government would get some return for their outlay? Exactly. They would get some revenue at least for their outlay, whereas in the expenditure of money on harbour works, they are simply constructing works to enable a private company to trade to the district.

770. There would, in your opinion, be every probability within a few years of the line ultimately paying, owing to the enormous population that would be attracted to these fertile districts? That is my opinion. I certainly think that the line would ultimately pay.

771. *Vice Chairman.*] May your evidence be summed up in this way: that unless the Committee are prepared to recommend the construction of the railway from West Maitland to Taree, as a portion of the North Coast railway to Lismore, you are unfavourable to its construction, and would prefer the improvement of the coastal harbours? Yes; that is a fair summing up of my evidence. I should not at all be in favour of a railway to the Manning only, because I do not think that a railway to the Manning only would be justified. I would only be favourable to it as part of the proposed North Coast railway system.

Joseph Witer Allworth, Acting Chief Surveyor, Department of Lands, sworn, and examined:—

J. W. Allworth. 772. *Mr. Lee.*] You are a district surveyor? I am at present Acting Chief Surveyor for the Colony.

773. But you have been surveyor for the district of Maitland for a good many years? Yes, I have.

774. Do you know the districts that are embraced by this proposed railway? Yes.

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776.

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776. Have you a personal knowledge of that part of the country? I have, of a good deal of it.
777. The Crown lands shown within a certain area on either side of the railway survey, are shaded on that map in brown;—can you tell us the nature of those Crown lands, how they are held, and what they are fit for? Some of them are held under annual leases for pastoral purposes, and some of them are forest reserves.
778. Those would be the green portions? Yes.
779. Do you contemplate bringing under settlement or homestead leases any portion of those Crown lands? Yes, parts of them.
780. Whereabouts? West of Gloucester.
781. About how far? Nearly 20 miles from Gloucester.
782. In large areas for pastoral purposes, or in small areas for agriculture? Large areas for pastoral purposes,—areas of 3,000 or 4,000 acres I propose.
783. About how many of them are there likely to be? Eight or ten.
784. Taking them at the higher number, it would settle about ten families? Yes: then there is some land for homestead selection at Coolongolook.
785. How far is that on the eastern side of the railway? I suppose about 20 miles from the railway.
786. Is the area large? About 3,000 or 4,000 acres.
787. It will be a small settlement? Yes.
788. There do not appear to be any Crown lands within the immediate vicinity of the railway survey between Gloucester and the Manning, except little patches here and there? No, there is not. Of course there is that large strip of church and school lands.
789. You see that apparently large area of Crown lands on the north of the Manning River, and north of the Barrington; what kind of country is that? A good deal of that is rough mountain land.
790. Is it likely to be suitable at any time for other than grazing purposes? No; I do not conceive that it would be.
791. And I suppose third-class grazing land at that? It would want a good deal of improving to make it fair grazing land.
792. I presume that the fact that there is no small settlement on the conditional purchase, at the present time, is evidence of the unsuitability of the position of the land? It is out of the way, and that, of course, is one reason.
793. Do you think that if the railway were constructed, it would be the means of settling any population of any note on that country? Not on the Crown lands; but I think it would on some of the other land. I think it would, for instance, on the A. A. Co.'s land.
794. Excepting odd pieces here and there in the valleys of the river? Yes.
795. How are the Church and School lands held? Some as farming leases and some as grazing leases.
796. Has it been decided by the Department what is going to be done eventually with those? The present lessees have certain rights, and until they determine whether they will exercise them or not, we have not considered the subject.
797. But even then, will they become Crown lands in the ordinary sense of the word or will they still be held as Church and School lands? They will become Crown lands.
798. Is any large portion of that area of Church and School lands suitable for small settlement? That area at present is partly held for farming and partly for grazing. I do not think that changing it into Crown lands will alter that fact.
799. Would it be more productive if it were alienated in smaller holdings? No, I do not think so. I do not think it would be desirable to alienate in smaller ones than are held now.
800. Do you think the construction of the railway would have any influence upon it? I think it would improve the value of that land. Some of it is good farming land, and, of course, being near the railway would help it.
801. What is the area of it, all told, not including that portion down towards the coast? I do not know. I have never made a calculation.
802. The A.A. Company's land is, of course, held in fee-simple? Yes.
803. Without any conditions? So I understand.
804. Do you happen to know whether that large tract of freehold contains any areas suitable for agricultural purposes? Yes, there is a fair quantity that is suitable. Of course it is not very large in comparison with the whole, but there is a large area around Gloucester which is suitable.
805. What could they grow there? They could grow corn. They grow maize on one side of the river, and they could grow it on the other.
806. Anything else besides maize? They could grow cereal crops in places.
807. Wheat? I think wheat could be grown in parts. About Gloucester there is much land which is fairly rich—land on the water-course.
808. But it is in small areas is it not? Around Gloucester there must be several thousand acres.
809. But not good land in one block? Yes, fair land in one block. The fair land is pretty well altogether.
810. The construction of a line might induce the holders of that land to open it for further use? Yes.
811. The next question is what people would be able to pay for it so as to produce maize and send it to market at a profit? That would depend on the railway freight.
812. Considering the proximity of the large corn-producing districts to water carriage, do you think it would be possible for the farmers to grow maize inland and send it by rail, say to Newcastle or Sydney, when from the rivers it could be conveyed to those places much more cheaply? That is, in fact, whether they could compete with the rich lands and the water carriage; I do not suppose they could.
813. At the present time, I suppose that nearly all that country is used for pastoral purposes alone? Yes.
814. And although there is a little cultivation, it is chiefly for home use? You are talking about the A.A. Company's land—that is nearly all used for pastoral purposes. There are some farms but not many.
815. Then the construction of this line, if it were to bring about settlement, would, of course, be directly in the interests of the private owners of that land? I do not say that quite.
816. Well, it would if it ran through their estate 51 miles? It would be a very great advantage to them, but I do not think it would be altogether in their interests. It would be in the interests of the Church and

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- and School lands, and the pastoral people in the direction of Rawdon Vale, who would come in and join the line at Gloucester.
817. The settlement is not very thick along there at any part? No, it is not very close there at all.
818. In which direction do the Copeland gold-fields lie from Gloucester? Six miles west of Gloucester.
819. Knowing that country as well as you do, without committing yourself as to whether as a matter of policy it is advisable to make this railway or not, do you think that the best route has been selected by the railway surveyors? Yes; I think that this route is the best, because it is farthest from water-carriage.
820. Would you care to offer any opinion as to the advisability of making this line? I have never given very much thought to it.
821. I suppose you know the river flats on nearly all these rivers—the Paterson, the Williams, the Karuah, and the others? Yes.
822. Are they not all subject to floods? Yes, they are all subject to floods.
823. And is not that the best land to be found? The flood land is the richest. You get the richest crops off the flooded areas.
824. That is the land which is chiefly cultivated, is it not? Yes.
825. And in some seasons there is almost a complete loss owing to floods? I do not know that that occurs very often. They recover very quickly where they grow lucerne, but of course with corn the season is lost if there is a flood.
826. Then we are to understand that the Crown land of any value that will be affected by the construction of this railway is very limited in area? Yes.
827. Although there appear to be a large quantity of Crown lands at the further end of the line, those lands are of a hilly character and of an inferior quality? Yes; they are not likely to be settled upon for some time, I should think. There is no present demand for them.

TUESDAY, 1 MARCH, 1898.

Present:—

- THE HON. FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).
- | | |
|--|----------------------------|
| The Hon. JAMES HOSKINS. | CHARLES ALFRED LEE, Esq. |
| The Hon. CHARLES JAMES ROBERTS, C.M.G. | THOMAS HENRY HASSALL, Esq. |
| The Hon. WILLIAM JOSEPH TRICKETT. | GEORGE BLACK, Esq. |
- FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and examined:—

J. Harper. 828. *Mr. Wright.*] Have you a statement to lay before the Committee? Yes. I may explain that in 1891 I made my first report on this subject to the Commissioners. It might not seem necessary to go back as far as that in view of a later report, but as one bears on the other, I think it will be as well to submit both. The report that I made in 1891 is as follows:—

New South Wales Government Railways, Goods Superintendent's Office, Sydney, December, 1891.

NORTH COAST LINE—WEST MAITLAND TO TAREE, Manning River.

Total length, 113 miles 54 chains; estimated cost, £1,378,923, or (say) £12,095 per mile.

WHEN directed to report upon the probable revenue and working expenses of the proposed extension, my instructions limited me to an investigation of the section submitted, and, consequently, the information elicited deals only with the district through which the survey passes and those so adjacent to it as to be served by its construction.

I deem it necessary to refer to this matter in explanation of an apparent treatment of the proposal rather as a local branch line than as a portion of a coastal trunk one. As none of the traffic of the districts through which the road is projected reach the existing lines at any ascertainable point in such a manner as to permit of identification, the ordinary methods of estimating probable traffic and checking information furnished from local sources are unavailable, and, consequently, the data for arriving at correct conclusions are somewhat vague. At the present time, the carriage of the district is almost exclusively by water on the rivers Paterson, Williams, and Manning. The North Coast Co. have, however, very courteously placed all the information in their power as to the trade of the latter river at my disposal, and thus I am enabled to approximate sufficiently closely for all purposes the trade which falls into the three rivers.

The line junctions at 20 miles 57 chains from Newcastle to the north of West Maitland, and the following is a list of the towns through which it passes, or which will be served by it:—

	Distance from Junction.	Population of Town.		Distance from Junction.	Population of Town.
Oakhampton	2½ miles	500	Copeland	72 miles.	220
Paterson	12 "	599	Barrington	72 "	74
Gresford	20 "	536	Wingham	107 "	494
Clarence Town	27 "	474	Taree	113½ "	712
Dungog	33 "	821	Tinonec	"	239
Stroud	46 "	336	Cundleton	120 "	280
Gloucester	72 "	76	*Port Macquarie	167 "	963

(a) These towns are not on the proposed line, but would be served at the mileage mentioned.
(* Beyond the terminus 53 miles, but we would, no doubt, obtain passenger traffic.

The estimated populations of the districts which embrace these towns are as follows:—

Paterson	2,500
Dungog	2,000
Clarence Town	1,600
Taree	6,000
Port Macquarie	4,000
Total	16,100

I do not think, however, we could expect to derive either coaching or goods revenue from more than, say, 12,000 people.

The character of the country through which the line passes is agricultural on the various rivers and creeks, and the balance grazing of good to indifferent quality. The line passes for 52 miles through the A.A. Company's grant of 464,640 acres. No adjoining Crown lands will, therefore, be benefited over this extent of railway frontage.

Maize,

Maize, tobacco, and fruits are successfully cultivated on the river flats. Only small quantities of wheat are grown. A large quantity of grazing land is used exclusively for breeding and holding store stock; dairying only being carried out to a limited extent—the total dairying stock in the counties of Durham, Gloucester, and the electorate of the Hastings and Manning amounting to 13,232 head, and of ordinary cattle, 31,297; pigs, 27,787. J. Harper. Mar., 1898.

Sheep will not thrive in these coastal districts, and any live-stock traffic would be confined, generally speaking, to pigs, as our experience has taught that store stock, such as are principally held in these districts, are not railed to market or fattening grounds.

Timber is plentiful on several parts of the line, and of excellent quality, but a great deal of the ironbark has been cut out, and the getters of sleepers and other first-class timber are working as far as 20 miles away from the rivers.

As I have already said, the present trade is chiefly carried by water, and with such advantages as are possessed in the direction of this economical means of transit by a very large proportion of the residents, I am afraid we should be very slow to win the carriage of their very low grade traffic such as timber, maize, potatoes, &c.

At present droghers of large capacity reach the town of Paterson on that river at any time throughout the year, and without competition carry at the rate of 5s. per ton the whole trade to and from the district to Morpeth and Newcastle. Our rates to Newcastle under the most favourable conditions for the lowest class of traffic, viz., maize, would be 3s. 6d. per ton, but I am satisfied that it would be carried for less in competition by water, as these traders not only serve the population at the head of navigation, i.e., Paterson, but carry for numerous farmers on the river-banks, occupying only five or six hours in transit.

The same competition would always exist at Clarence Town, the head of navigation of the river Williams. From the point in question to the Hunter, vessels with a draught of 10 feet trade, and steamers carry passengers and cargo to Newcastle, occupying five hours on the journey, and charging freight at the rate of 5s. per ton. Our lowest freight for maize would be 6s. 6d. per ton, and average freight at 3d. per ton, per mile 17s. per ton.

Again, on the Manning, which carries the largest population, and is the most productive of any of the districts through which the line passes, ocean-going steamers and vessels call at all the principal towns to which, even if a railway were constructed, the great bulk of the trade of the outlying settlements must converge. The present rate of carriage (again without competition), is 12s. 6d. per ton to Sydney; our lowest freight (for their staple, maize), over this mileage would be to Newcastle 9s. 8d. per ton, and to Sydney 13s. 4d. per ton, average freight at 3d. per ton per mile would be to Newcastle 31s. 3d. per ton, and to Sydney 58s.

It will thus be seen that these districts already have a very economical means of transit to and from their markets, and that we should always find a very strong competition with all the advantages, except despatch, in favour of the water carriers, even with such products as would form the bulk of the trade, and are on our lowest grade of freight charges.

It is true that one of the strong arguments advanced in favour of a railway rests upon the uncertain character of the river entrance. There is no doubt but that this fact militates very much against fruit-growing and butter-producing on the river, but for general trading purposes I am disposed to think that this obstacle does not make itself very much felt; in other words, that the evil consequences at least to traders are, perhaps, exaggerated. The pilot at the Manning River Heads has been good enough to furnish me with a return showing the arrival and departure of the steamers to and from the river for the period 1st October, 1890, to 30th September, 1891. It will be observed that sixty-three trips have been made during the period. It is quite true that in several instances the steamers have been detained presumably by the condition of the bar, but I think an examination of the detailed list will show that there has been no such interruption to communication as would induce the residents to abandon this means of carriage for a great deal of their traffic whilst the freights are as distinctly in its favour as they undoubtedly would be.

The portion of the district through which the proposed line passes, and which would most undoubtedly be served by it owing to lack of river communication, is from Dungog to the point where the line crosses the Manning. This district is isolated from river communication. Dungog is 15 miles from Clarence Town, the port for the Williams River, and there is no doubt that this town and district to the north-west would rely largely on the railway as a carrier; but from a point about 5 miles from this town on the railway line, the latter passes for another 30 miles through the property of the A. A. Company before it again benefits settlement at Copeland and on the Barrington; and, thence again through 20 miles of the same Company's land until it reaches the Manning. This country and its products would undoubtedly be ours for traffic purposes without fear of competition, but it at once represents the least densely populated and the least productive, and serves comparatively little Crown land.

I have ventured to traverse at some length the possibilities of this proposed line, and to indicate the results which may follow its construction, because I feel it can in no sense claim to be of national importance as an urgent work when compared with those necessary to open up other parts of the Colony.

As I have endeavoured to indicate, the settlers on Crown lands in this portion of New South Wales are comparatively well off in regard to communication with markets, and I am satisfied that, taken as a local line, the one under consideration would not pay working expenses for many years to come, and I am supported in this conclusion by our experience of the Cooma and South Coast branches which in many respects offer more favourable promise of doing so than this one.

My estimate of goods traffic is based largely on the returns obtained as to the Manning River trade from the North Coast Company, and applied to the district generally. The timber, stock, and passenger traffic is, of course, an estimate based on such experience as is available, but I have in each case made most liberal allowances for development following the construction of the road.

I have shown, in the first place, the probable value of the whole of the traffic of the district, leaving out of consideration the competition by water. As this means of conveyance would certainly continue to be used for the carriage of at least half the traffic, to obtain a true expression of the value of that which would be won by railway the estimate should be reduced 50 per cent.

Estimate of value of goods traffic, assuming that the line carried the whole trade.

	Average miles.	Tons.
Taree District, including Wingham, Cundleton, Tinonee, Barrington, and Gloucester, &c.	110	{ In 7,200, at 4d. per mile, £13,200. { Out 4,000, at 2d. " 3,660.
Dungog District, including Stroud, Clarence Town.....	33	{ In 4,320, at 4d. " 2,376. { Out 1,750, at 2d. " 481.
Paterson District.....	12	{ In 3,000, at 4d. " 600. { Out 1,250, at 2d. " 125.
Timber carried on whole line, say, 300 tons per week, at 10s. per ton ...	.....	15,600, at 10s. per ton 7,800.
Live stock, whole line, 400 trucks per annum, 100 miles. at 8d. per mile.	.....	2,400 1,333.
Total .....	.....	39,520 £29,575.

Coaching Traffic.

Forty passengers per day, yielding 10s. each	£6,260
General coaching.....	1,500
Mail subsidy, 114 miles, at £12 per mile	1,368
Total coaching.....	£,9128

It would be, of course, idle to think for one moment that the railway would obtain the goods traffic indicated above in competition with the three rivers. If we obtained even one-half, it is the most that could be expected.

It will be also observed that having in view the general character of the possible traffic, the rate allowed (15s.) for the tonnage is most liberal.

Working Expenses.

This line will in certain respects be a costly one to work. Its ruling grade is 1 in 60, and the following are approximately the number of miles and grades of 80 and under :—15½ miles of 1 in 60; 9¼ miles of 1 in 60 to 70; 10 miles of 1 in 70 to 80.

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The curves, however, are even more formidable. Roughly speaking, there are :—70 curves of 12 chains radius ; 4 curves of 13 chains radius ; 2 curves of 14 chains radius ; 28 curves of 15 chains radius ; 32 curves of 16 chains radius ; 2 curves of 18 chains radius ; 44 curves of 20 chains radius.

The Cooma line, except that its ruling grade is 40, offers a fair comparison as to working expenses ; and I have, therefore, adopted its train mile cost, 3s. 10d., in arriving at an estimate.

To perform the service of the Taree line, a daily mixed mail service and a tri-weekly goods service will at least be necessary ; or, 1,368 mixed miles and 684 goods miles per week—106,704 miles, at 3s. 10d. per mile, £20,493 per annum ; the interest on £1,378,923, £55,156 per annum. Total, £75,629, annual cost of proposed line.

829. Your estimates so prepared in 1891 of the working expenses, I understand, are almost identical with those more recently prepared by the Commissioners? Yes.

830. What are they? About £20,000. It is rather a singular coincidence, considering that the two sets of estimates were prepared absolutely without any reference to each other.

831. At the time the Commissioners prepared their estimates, at the latter end of last year, they were unaware of your previous estimates being in existence? Yes.

832. Will you give me the total earnings? The total earnings I estimated in 1891—this was assuming that all the traffic of the district were carried by the railway—amounted to £28,703. The report that I made in 1897 is as follows :—

New South Wales Government Railways, Chief Traffic Manager's Office, Sydney, 14 Nov., 1897.

PROPOSED LINE, MAITLAND TO TAREE.

(Distance, 114 miles ; estimated cost, £982,283).

As directed by the Commissioners, I have again made careful inquiries as to the prospects of traffic on this proposed line, having caused a most exhaustive inquiry to be made in the district, in addition to my own personal one. The general circumstances have not altered since 1891, with the exception that the dairying industry has made great strides in the district, and will no doubt still continue to do so ; but I need scarcely point out how little railway-earning freight is produced by this source of production. As previously pointed out, the traffic produced in the whole of this district is almost exclusively of a low-grade character from a railway freight point of view, and the great bulk of it finds a consumption in the markets of Sydney, and, therefore, the charge by rail as against water carriage should generally be calculated on its delivery in the metropolis. The existing freights by steamer are higher than those charged from Sydney to Melbourne, and it goes without saying, are capable of very material reduction, and, after our experience on other lines running parallel with the coast, this fact requires to be very carefully watched in its bearing on the possible traffic of the projected line. This factor, in determining the route by which produce would be carried, is of all the greater importance by reason of the fact that a great portion of the land under cultivation lies in proximity to, or on the banks of navigable rivers, and the produce is picked up *en route* by steamers and conveyed to Sydney or Newcastle, or is delivered at central points by droghers.

The probable volume of the timber traffic would also be controlled more or less by the same causes, and the estimate elsewhere of £3,500 per annum would, in view of all the circumstances, be exceedingly liberal, when it is borne in view that this traffic is neither of a perishable nor urgent character, and can be dealt with by small vessels of light draught and at cheap rates.

The estimate which I furnish of live stock traffic is also an exceedingly liberal one, as the district cannot be regarded as a fattening one, and we would require to carry a very large proportion of pigs and dairy cattle to realise it.

With regard to the passenger traffic, I have estimated forty passengers per day travelling through the year, equal to 12,600 per annum, at an average rate of 10s. per head. It is claimed that a large number of passengers would be attracted outside the immediate district to be served by the railway from the population of the Macleay and of Port Macquarie, but it is exceedingly doubtful whether the majority of the residents of these districts would be prepared to pay for 95 miles of coach journey, and 230 miles of train journey to Sydney, equal to 45s. 6d. return second-class, in preference to the cheaper rate by steamer.

The following is my detailed estimate of the traffic of the various districts which will be served by the line :—

Paterson.

At present the service is performed by drogher, and the produce is delivered by water at Sydney and Newcastle. The rate for dead weight to Sydney is 7s. per ton, and to Newcastle, 3s. 6d. per ton. A very large proportion of the produce of this district is grown on the river and delivered direct by droghers. It is only 12 miles to Maitland by an excellent road, and for passenger purposes most of the families will have their own conveyances, and will use them, as in many cases they would have to drive nearly as far to a railway station as to Maitland. I certainly do not think we can look for very much produce, goods, or live-stock traffic, under the favourable conditions of cheap transit which exist at present, and which would no doubt be reduced under competition.

My estimate of the traffic of this district is as follows :—

		£	s.	d.
Produce, &c.	500 tons at 1s. 6d.	37	10	0
Goods	200 „ 4s.	40	0	0
Live stock—pigs.....	50 trucks at 15s.	37	10	0
		£115	0	0

Dungog.

The Dungog District, as pointed out in my report of 1891, is served from Clarence Town, the head of navigation on the Williams River, distant 15 miles from Dungog. The following are the existing rates for dead weight :—To and from Newcastle, 5s. per ton ; to and from Sydney, 13s. 4d. per ton. To this has to be added road carriage, which is at present high, amounting to 10s. per ton, but which would no doubt under the circumstances of competition be very materially reduced. It may be stated that the steamboat company are reputed to be paying 20 per cent. on preference shares, and 10 per cent. on ordinary shares, with a bonus of 2½ per cent., and the original £1 shares are now valued at 56s. The local storekeepers and many of the residents of Dungog are shareholders in this company, and would naturally be inclined to give the water route preference. In estimating the traffic as under, therefore, I am convinced that a very liberal view has been taken of the possibilities of winning the traffic by rail :—

		£	s.	d.
Produce.....	4,000 tons at 3s. 6d.	700	0	0
Goods	2,000 „ 6s.	600	0	0
Live stock.....	350 trucks at 20s.	350	0	0
		£1,663	0	0

Stroud.

The goods traffic of this district is at present carried to and from Booral wharf, a shipping point distant 11 miles by an excellent road from Stroud. The distance to the nearest point on the line is 4 miles at about 60 miles from Newcastle. I have but little doubt as the steamers would still continue to trade to Port Stephens for the purpose of serving the requirements of those living on the lower portions of the estuary that such a rate would be quoted as would enable them to retain the bulk of the traffic. My estimate of the traffic is as follows :—

		£	s.	d.
Produce	1,000 tons at 4s. 6d.	225	0	0
Goods	100 „ 7s. 6d.	37	10	0
Live stock.....	200 trucks at 20s.	200	0	0
		£462	10	0

Gloucester

Gloucester and Copeland.

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At the present time the population of these districts is about 1,000, and as most of the land is locked up, production is small. There is no doubt that when the land is eventually thrown open by the Agricultural Company very considerable developments may be looked for, but in view of the fact of the land being in the hands of a private company, one would not be justified in giving any estimate based upon the future intentions of the owners. My estimate of the traffic is :—

		£	s.	d.
Produce (say)	1,000 tons at 6s. 6d.	325	0	0
Goods	100 „ 10s.	50	0	0
Live stock	200 trucks at 25s.	250	0	0
		<hr/>		
		£625	0	0

Taree and District.

For the reasons of sea competition already referred to, I am of opinion that the bulk of the traffic from this district would still be sea-borne, the exception probably being butter, fruit, live-stock, and goods of a perishable character, and then only when requiring urgent despatch. At the present time the rates charged by steamers are—12s. 6d. per ton for dead-weight, and 30s. per ton measurement. I am convinced that these rates would be lowered immediately competition commenced, and that we would not, for ordinary goods and produce, get higher rates over the extension than those given in my estimate, viz. :—

		£	s.	d.
Produce	4,000 tons at 8s. 6d.	1,700	0	0
Goods, &c.	1,000 „ 12s. 6d.	625	0	0
Do.	500 „ 20s.	500	0	0
Live-stock	500 trucks at 30s.	750	0	0
		<hr/>		
		£3,577	0	0

Timber Traffic.

For the timber traffic of the whole of the districts served by the line, I estimate the freight as equal to £3,500 per annum.

Summary.

My summarised estimate of the whole of the traffic is as follows :—

	£	s.	d.	£	s.	d.
Goods and stock traffic—						
Paterson district	115	0	0			
Dungog „	1,663	0	0			
Stroud „	462	10	0			
Gloucester „	625	0	0			
Taree „	3,577	0	0			
Timber traffic	3,500	0	0			
						9,942 10 0
Coaching traffic—						
Passengers	6,300	0	0			
Mails	1,368	0	0			
Sundries	400	0	0			
						8,068 0 0
Grand total						18,010 10 0

833. That is really the total given to us by the Commissioners in their report? Yes.

834. You visited this district personally? Yes.

835. Did the inhabitants of the various places furnish you with any estimate of traffic? No.

836. They gave you no estimate? They gave the Commissioners figures as to what the boats carried.

837. They gave you nothing by which you could check your figures? Of course we got information as to the acreage under crop, the production of the various districts, and that kind of thing.

838. How did that bear out your estimate made in 1891? It was correct in 1891; for as a matter of fact, I got it from the steamboat companies.

839. You got the actual amount carried? Yes.

840. What do you think of the district as an agricultural one? On the rivers and creeks it is very good, but a good deal of it is very indifferent.

841. What is it between Maitland and Clarence Town? On the Paterson there is a lot of good country, but the back country is merely grazing land.

842. From Clarence Town to Dungog, what is it like? It is principally grazing land, and a lot of it is indifferent.

843. From Dungog to Stroud? On the creeks it is good. The other land is simply grazing land.

844. What percentage of the land would you consider good, so far as your observation went? Of the whole district, I should not consider that more than 25 per cent. of it was suitable for agriculture.

845. That is from Maitland to Taree? Yes.

846. Supposing that this land, belonging to the A. A. Company, were thrown open for agriculture, is it suitable for agriculture? In the neighbourhood of Gloucester there is a lot of very excellent land.

847. The railway would pass through 51 miles of the A. A. Company's land? Yes.

848. What proportion of that do you think is fit for agriculture? I should think not more than one-third of it, even if that much.

849. Do you think that the construction of this railway would conduce very largely to increased settlement? That would depend on the terms on which the land there could be acquired.

850. But apart from the A. A. Company's land? Well, immediately adjoining the line there is scarcely any other land but the A. A. Company's, with the exception of some church and school leases. There is some excellent land in the district, but it is very patchy.

851. Not more than 25 per cent. of it is good? Not suitable for agriculture.

852. Is the Manning fairly populated? Yes.

853. And rich land? Yes. The Manning carries a large population.

854. Is it now producing anything like the maximum amount of products? I should scarcely like to say that. I have not been all over the district.

855. There is a good deal of land between the coast and the railway, is there not? Yes.

856. There would be certain expense in bringing produce from that land to the railway? It would never come.

857. You think the steamer would pick that up? Yes.

858.

- J. Harper.
1 Mar., 1898.
858. Have you calculated for the western side of the railway only? For passenger traffic and for goods, except butter and perishable articles of that kind, for the eastern side of the line I do not allow anything. I do not think that the people there would pay a higher rate than is now charged by the steamer.
859. You have only estimated your traffic for a very short distance to the east of the line and for the whole of the western portion of the district? At Taree; but at intermediate points I have embraced the Stroud district, which is four miles from the nearest point of the line, and generally from 14 to 16 miles from it.
860. You go down to the navigable waters? Yes; to Bulladelah for passenger traffic.
861. And goods traffic you have not taken into account? I have allowed a certain portion for Stroud, the northern portion of the valley.
862. You have had a large experience in estimating the products of districts in connection with railway construction? Yes.
863. Do you feel satisfied that the estimate you have given to the Committee to-day represents the total volume of traffic that would be received? I am satisfied that it represents all the traffic we would get on this line.
864. What about any prospective increase? Our experience has not taught us that the traffic of the coast lines increases, and on this line I should look for a decrease rather than an increase.
865. You think that the competition of steamers might even make the traffic less than your estimate? Yes; that is our experience on the Cooma Line, and with the exception of developing the milk traffic on the Illawarra Line, it is also our experience there.
866. In reporting upon this line, do you look upon it as a local extension, or as a portion of a through line? I deal with it as a local line.
867. You do not take into consideration the possibility of further extension to Byron Bay or the main line? No.
868. Do you think that that would alter the aspect of the thing at all? For the worse, probably.
869. You think that the more the mileage of the haulage the greater the annual loss would be? Yes.
870. The more successful the competition by water would be? Yes.
871. Do you know the present freight between the Manning and Sydney? Maize, 10s. a ton from Taree; ordinary goods, dead weight, 12s. 6d.
872. That is a less rate than you have estimated for? Yes. I have allowed 20s. Measurement goods are 30s.; but I have not estimated much at 20s.
873. The measurement goods from that district would necessarily be very small in quantity? Measurement applies in sea carriage for a good many articles to which it does not apply in land carriage.
874. It could not apply to maize? No. The bulk of the produce of the district is carried at 10s. a ton.
875. The bulk of the produce is timber and maize? Yes. Maize is carried at 10s. a ton, and timber is carried at less. I am quoting the steamer freight.
876. Timber is carried at so much per 100 feet? Yes.
877. What is the population you mentioned? I have a more recent statement of the population which I can give you. My previous statement was prepared in 1891.
878. Was this prepared by yourself? Yes.
879. Will you give us the total? 19,500. That includes the districts of Gresford, Paterson, Dungog, Stroud, Gloucester, Copeland, Coopernook, Cundleton, Taree, Tinonee, and Wingham.
880. Are you aware that the Statistician's Department have supplied us with evidence showing that the population along the whole length of line, including Taree, and taking 10 miles on either side of the line, is about 13,000? Yes; but I take more than that. For our purpose 10 miles would not be the right limit.
881. The 10 miles' limit you think is not sufficient? No.
882. You have based your estimate simply on your knowledge as a railway expert? Yes; as the traffic would fall in—as to where it would be likely to come from.
883. Where is your nearest point from the existing railway—do you start from Largs? Half a mile the other side to the north of Maitland. But I do not start to take the population until I get to the neighbourhood of Paterson—nothing to the south of the Hunter is included.
884. You include only the population who, you feel sure, from your knowledge as a railway man, would use the line? Yes.
885. It has been mentioned that the scenery along the line is very beautiful, and that the line might become a tourist one;—what do you think of the possibilities of that? I am afraid it is too far to go for the scenery. It is 118 miles from Sydney to Maitland, and 114 miles further to Taree, and the scenery is very limited to induce people to go so far.
886. During your visit, did you see anything very impressive in the scenery? There are one or two pretty spots, but nothing to compare with the scenery on either the Cooma Line or the South Coast Line.
887. Nothing to hold out the slightest hope of there being a tourist traffic on this line? No; with the exception of brush, which you can get in the Illawarra district as well, there is nothing to compare with the scenery within 50 miles of Sydney.
888. Then the traffic will depend entirely on the residents? Yes.
889. Are there any navigable waters between Taree and Sydney, except at Port Stephens? There is the Paterson and the Williams.
890. I mean on the coast? No.
891. The only points of competition are the River Manning and Port Stephens? Yes.
892. The greater productive area on the whole length of the line is the Manning itself? Yes.
893. The larger proportion of the population is also on the Manning and its neighbourhood? Yes. At Coopernook, Taree, Tinonee, and Wingham, there are altogether 11,000 of the total population of 19,000.
894. Considerably more than half of the whole population is on one river? Yes.
895. And the intermediate country, after you leave Dungog, is sparsely populated? In the neighbourhood of Dungog there is a population of 4,000.
896. Would this railway be likely to capture the traffic about Clarence Town? Certainly not.
897. You think that the service is already too good there? Yes.
898. What service is there between Clarence Town and Newcastle? It occupies about five hours in time, and the freight is 5s. per ton to Newcastle.

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899. And what does it cost to bring the stuff on to Sydney? Our rate for maize from Dungog to Darling Harbour would be 12s. 2d.
900. You say the freight is 5s. from Clarence Town to Newcastle? Yes, and 13s. 4d. to Sydney.
901. 13s. 4d. by steamer as against 12s. 8d. by rail? Yes.
902. You have the advantage? Yes; but I think it would not be very long before the steamer charge would be less than 13s. 4d.
903. Your rate is about the lowest rate you could carry at? Yes, that is absolutely our lowest rate.
904. And you think that the steamers with competition would lower their rates? Yes; the rate is cheaper to-day from Taree than from Clarence Town. It is even cheaper from Melbourne to Sydney than from Clarence Town.
905. So you do not anticipate capturing trade at Clarence Town or Dungog? No; I have given an estimate of a certain quantity of trade that we would get at Dungog.
906. It appears to me that the bulk of the trade you think you could get would be between Stroud and Taree? Yes.
907. Where there is no water competition? Yes; but unfortunately at the present time there is very little production in the Gloucester district. That end of the A.A. Co.'s land the company is reserving very closely, and will not part with any of it. It is some of its best land.
908. Do you not think that it is possible that the construction of a railway through their land would induce them to sell some of it? I think it naturally would.
909. You say it is good land? Yes.
910. That might become populated? After all said and done, it is a question whether the people would not be better situated on the banks of navigable rivers. Personally, I do not myself think that for the purpose of maize-growing or anything of that kind, you can mention any of the districts through which this line would pass in the same breath with the more northern river districts.
911. Are we to act on the assumption that unless the A.A. Co.'s land were sold, and peopled by an agricultural population, you see no earthly chance of this railway paying? No; I do not see it even then.
912. That is the only chance of its ever paying working expenses? Yes.
913. And you see no possibility of that chance? No; I do not.
914. Have you reported on the line further along the coast? Yes; between Casino and Lismore.
915. Did you go as far as Kempsey? Not this trip.
916. Do you think that any of the trade of the Upper Macleay would be likely to be brought to Taree? I do not think that it is at all likely to be carted 95 miles to a railway.
917. And we are not likely to secure any of the passenger traffic? No; it would mean a coach journey of 95 miles and then having to pay a train fare for 230 miles. I may mention our experience to-day on the south coast which just occurs to me. We have an extension to Nowra, and Nowra is 39 miles from Ulladulla, and now, notwithstanding that, I suppose that 90 per cent. of the passenger traffic from Ulladulla goes by steamer.
918. And Ulladulla is a very inferior port, is it not? Yes; certainly not as good as the Macleay.
919. Only very small steamers go there? Yes.
920. Can you give the Committee any information as to the products of the south coast;—do you bring much produce for instance from Nowra to Sydney? None, except butter, cream, and cheese.
921. What about the supplies (the stores) going to Nowra—can you give the Committee any idea of the tonnage carried over-sea and by railway? I cannot say what is carried by sea. I do not know that, but 430 tons, including all classes, were carried by railway to Nowra last year.
922. But the consumption in the district must be very much larger than that? Yes; of course the balance is carried by steamer.
923. Instead of getting the whole of that traffic you do not get much more than 10 or 12 per cent. of it I do not think we get one-tenth of it
924. And you think that what takes place at Nowra would take place at Taree if this railway were constructed? Yes. This will give you an idea of the traffic we carry to Nowra: during the whole of the year we carried, first-class, 2½ tons; second-class, 5½ tons; and third-class 55 tons. They represent articles of general consumption, and outside produce.
925. One thing that guides you in this report is that you cannot successfully compete with water-carriage on the coast, even if the harbours are indifferent? That is our experience, on both the Cooma and the Illawarra lines.
926. You have not been able to capture all the traffic on the Cooma line? We have less traffic on the Cooma line than we had when it opened, with the exception of stock.
927. The tendency is to send it by the cheaper water route? Yes.
928. Supposing it were determined to construct a railway to the Manning River, and to stop all works of improvement of the navigation of the river, do you think that the inhabitants there would be satisfied? No; I am sure they would not. I can speak from experience in that direction of our Lismore-Tweed line. What I should expect to occur in regard to this line is what has occurred on the Tweed and the Brunswick and other rivers. Directly the railway works had been authorised, and were in course of construction, I should expect the people to press more keenly than ever for the improvement of the river entrances. That is what they did on the more northern coast.
929. So you think that in addition to the construction of this line, the agitation for the improvement of the navigation of the Manning would be quite as strong or even stronger than it is at the present time? Yes.
930. I suppose with the object of getting cheaper carriage by setting one against the other? I do not know what the object would be, but I dare say one would be found.
931. You do not think that the abandonment of the improvements of the river would meet with the approbation of the inhabitants? No; and I do not think it would be fair, either, to the inhabitants of the lower reaches of the river.
932. How far would this line cross the Manning above its entrance? I think it is 40 or 50 miles to Wingham from the entrance.
933. And nearly all below that—which comprises, I suppose, the great bulk of the fertile portion of the Manning River—you are satisfied that the produce would be carried by sea, even if this railway were constructed? Yes, I am sure it would.

- J. Harper. 934. *Mr. Lee.*] I want to ascertain the cost of carriage by steamer from various places, which I will enumerate, directly to Sydney, and also the rates from the same places by rail to Sydney;—do you think you will be able to give me that information? Yes, I think I can give you that.
- 1 Mar., 1898. 935. I ask you first of all to give me the cost from the Paterson to Sydney by water? By water, 7s. per ton for all dead weight, and 10s. measurement. The railway freight to Sydney from the same point would be from 10s. 2d. up to 76s.
936. What would maize be by rail? 10s. 2d.
937. And I suppose an average of ten bags per ton? No, about nine.
938. The next will be from Dungog? Through to Sydney by steamer the rate is from 13s. 4d. to 20s., and by railway the freight would be from 12s. 2d. to 78s.
939. In that 12s. 2d. would be included the maize? Yes.
940. The next will be from Stroud? Eighteen shillings to 26s. by water, and 13s. 2d. to 79s. 6d. by rail.
941. Gloucester and Copeland? That would scarcely be fair, because there would be a long road carriage from Gloucester. The river scarcely comes into it there at all.
942. That is to say, you would get that traffic? I have practically credited the whole of that traffic to the line.
943. Take the next place? From Taree the steamer freight is 10s. for maize, and 12s. 6d. to 30s. for other goods. The railway freight would be from 17s. 2d. (for maize) up to 92s.
944. Those are the rivers which you have to compete with? Yes.
945. It would appear from your rates that the charge on the railway for maize would be 17s. 2d., whereas by boat it would be 10s.? Yes; it is 10s. to-day.
946. In estimating the quantity of traffic that you would be likely to get, on what basis did you separate that which was likely to go by steamer from that which was likely to go by train? I took approximately the neighbourhood where the produce was grown, and wherever it was grown, wherever it seemed favourable for reaching the railway, outside the rate, I gave the line credit for it.
947. Taking your estimate of the traffic from the Manning River, the amount I think you estimated would be £3,577, exclusive of timber? Yes.
948. What quantity of maize, if any, did you include in that amount? 4,000 tons, at 8s. 6d., I have given, and that would chiefly represent maize.
949. That would be 8s. 6d. a ton from Taree to Maitland? Yes. I have only given the line credit for earnings by itself.
950. That maize would be grown on the river banks? Yes; but it might be grown away from the river banks, and higher up than Wingham. I looked at it in this light, that a market for a certain quantity might be found in the neighbourhood of Newcastle or Maitland. At times there is, of course, a market there, if they happen to be suffering from floods or droughts, and there is a better season elsewhere, and I thought it better to credit them with that rather than with finding a market at Sydney.
951. It would depend very largely on circumstances? Decidedly.
952. On the whole, taking the traffic in a general way—that is to say, with the river fairly navigable, and the crops fairly good—do you think there would be a probability of so much as 4,000 tons of maize being sent by rail? Well, maize and other things of that kind. It is a very liberal estimate. But I think it is better to err on the side of liberality than otherwise when the quantity is an unknown one to any extent.
953. If the steamer can move it to Sydney so much more cheaply than the railway could, how could you expect the railway to get any of it at all? I have pointed out that a good quantity of this would find its market at Maitland, or at up-country towns, and would not go to Sydney at all. Assuming that it were required, say, somewhere up the north-western line, it could be delivered at 8s. 6d. per ton at Maitland, and would be that much closer to the seat of consumption than if it were shipped to Newcastle.
954. Would it not then be coming from an extreme point, and be running through districts which produce the same article closer to the market? Generally they do, but not invariably.
955. You find that maize is a low class article to touch at any time in regard to freight charges? Yes.
956. And it is rather an expensive freight for the railway to touch? Yes.
957. Inasmuch as it requires a great deal of handling, and there is not much profit got out of it? Yes.
958. What has been your experience on the South Coast line—have you carried much maize there? No, we do not carry any there. It is all on the river banks. It never finds its way to the railway at all.
959. It is picked up by the steamers? Yes. It may sometimes be carried for the purpose of feeding horses along the line where it is not grown.
960. And you think that what has happened upon that line is likely to happen on the northern rivers, that is wherever the rivers are navigable the produce will go *via* the port? Yes.
961. When you were going through this district, and making such a comprehensive estimate, as you undoubtedly have done in this matter, did it appear to you that that part of the country presented any unusually good prospects for the future? No, not from a railway point of view. It is undoubtedly a good district.
962. Admitting that it is all that it is said to be, did it occur to you that if it were pierced by a railway that fact would induce much larger settlement? It would probably induce settlement of a character. Dairy farming would, no doubt, be much increased.
963. Supposing that all the available land were taken up for dairy farming—and we are informed that a very large proportion of it is very inferior grazing land—and supposing that dairying in a large way were to take place, would the produce of the dairying be of such importance as would add any material freight to the railway? No; it would not amount to much. As a matter of fact, you know as well as I do the enormous quantities of milk which are carried for consumption by the large population of Sydney from the Illawarra District. Well, last year the total freight earned on the Illawarra Line for the carrying of dairying products amounted to £6,000. That included all the dairy produce.
964. Milk, cream, butter, cheese? Yes. Of course, a very large quantity of that was made up with milk. We get a great deal more from milk than from cream.
965. But your milk business on that line is a special business? Yes.
966. And you have not been able to do on any other line what you have been able to do on that line by running special milk trains? No; it is close to a large population.

967. It is only by running special milk trains on that line that you obtain that traffic? We could not run special trains from Taree to Sydney for the milk traffic. At Taree I have allowed 1,000 tons, at 12s. 6d., which would largely include dairy produce. At Taree I have allowed for 5,500 tons of produce; 4,000 tons represent the maize. The greater part of the 1,000 tons at 12s. 6d. would represent the produce of the dairying district, and the 500 tons at 20s. are for other things. J. Harper.
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968. Does that include dairy produce? Any such perishable goods as would not be sent by steamer. The 1,000 tons would include dairy produce.
969. Are you aware of the great strides that dairying has made on the Richmond River? Yes.
970. And that large quantities of butter have been produced there;—do you think the same thing would take place in the Manning District? I do not think that that would be as good a dairying district as the more northern rivers. I do not think that the pasturage is as rich there as it is farther north, and there is also a more severe winter there.
971. Did it occur to you, when you were in that district, that it could be better opened up by some other means than a railway? Well, I do not know, except it were by the improvement of the river entrance.
972. Do you think that that part of the Colony is suffering from any great disability from want of a railway? I certainly do not. I think that the people there have been in the habit of crying out a good deal because of not getting their butter and cream to market, owing to the conveyance of it being delayed. I have frequently known steamers bar-bound on the Richmond for three or four days, but the appliances which the companies have—the refrigerating chambers, and so on—are such that they can tide over difficulties of that kind, and I daresay that, as industries develop in this district, they will get over the difficulties caused by a temporary stopping at the bar.
973. There is no doubt that the residents have to submit to some inconvenience during adverse times—that goes without saying? Yes.
974. Would your acquaintance with the capabilities of these districts lead you to suppose that within a reasonable time the freight that you have estimated would be increased? No; I should not expect it. I should expect that with the development of competition it would be more likely to fall off in certain directions. Practically, there is no competition to-day on the Manning at all. The traffic is really in the hands of the North Coast Company.
975. You did not see sufficient there to induce you to recommend the Railway Commissioners to favourably consider the proposed extension of the railway? No.
976. In estimating the traffic of a district, you are not governed by the fact that the line will not pay immediately? No; I lay my estimate just as the figures are before the Committee—just as I estimate the traffic.
977. Irrespective or whether the line would or would not pay? Yes.
978. You simply give what you believe would be a fair estimate of the traffic to be expected? Yes. If I draw a deduction it is only from figures which are equally at the command of the Committee.
979. A large proportion of the route goes through the A. A. Company's land—51 miles; if the agricultural portion of that were made available and settled upon, do you think that that would lead to the estimated freight being doubled? No, certainly not.
980. It would mean some extra freight, of course? Yes.
981. But you do not anticipate a considerable addition? No; the improvement would take place chiefly in the neighbourhood of Gloucester, and the population in that district probably might increase from 1,000 to 2,000 or 3,000.
982. I presume that your Department still have the difficult question to deal with of fighting for railway traffic as against sea-borne traffic at many points? Yes.
983. Have your Department devised any scheme yet by which they can overcome that difficulty? It is impossible so long as the users of the permanent way outside the Heads do not have to pay interest on capital cost, as we have to do.
984. Have you not in some cases made a considerable reduction by means of your differential rates for the purpose of getting traffic? Yes; we have them in operation on the Cooma line, and the main northern line to Glen Innes and elsewhere.
985. All those points are some distance from the seaboard? Yes.
986. And yet you have been unable to capture the whole of the traffic? Yes; the only traffic that has fallen to us has been the low-grade traffic.
987. Therefore, your fears are that, if you have railway communication along the northern coast, you will be perpetually competing with the rivers? Yes.
988. And that eventually the rivers will beat you? Yes; that is our experience wherever we are running parallel with the coast.
989. *Mr. Roberts.*] Did you accompany the Railway Commissioners on their visit of inspection of the proposed railway? Yes, in 1897.
990. Which road did you take? We went from Paterson through Dungog, and through Gloucester to Taree by the main road, and we came back by Wingham and through Gloucester, Stroud, and Raymond Terrace to Hexham.
991. You did not travel along the coach road all the way from Hexham to Taree? No; the line is right away from that, the line passes through Paterson and Dungog.
992. Persons travelling along the coach road from Raymond Terrace to Stroud would not get a correct estimate of the value of the country? No; practically the road from Maitland through Paterson to Dungog is never very far away from the line, and by coming in from the accommodation house midway between Gloucester and Stroud you see the country on both sides, and going from Wingham to Taree you see the country practically there. Where the line crosses the Manning it is not practicable at all for buggies; it is very rough country following the Gloucester River down to its junction with the Manning.
993. You did not travel along that road? In 1891 I went 12 miles out and that was quite far enough—that is east of the Barrington.
994. There is some very good land in that neighbourhood? Yes; but the country is very rough, and there is only a cleared track.
995. There is a large area of land that could be opened up there if the railway were made? Yes; that is where the A.A. Co.'s land is on the Barrington and Gloucester,

- J. Harper. 996. Can you give the Committee any information as to the probability of the A.A. Co. selling or leasing their land? It is impossible to know what a corporation like that will do. I suppose that anyone would have thought that long ago the A.A. Co. would have parted with their land in the neighbourhood of Newcastle, but they have not.
997. Did you hear whether it was likely that the A.A. Co. would give the land through which the proposed railway would pass? No; I never heard anything to that effect.
998. How long did you remain on the Manning? In 1891 I was there about a fortnight, or nearly three weeks.
999. In 1897 I mean? We were there six or seven days, but I had an officer up there for about three weeks, who travelled all over the district getting me statistics.
1000. Are you quite sure that all the information that could be afforded you to enable you to prepare that estimate? Yes.
1001. On the occasion of the 1897 visit, did you go lower down the river than Taree? No; the traffic would not come up to Taree.
1002. Are you familiar with the land on the lower Manning? Yes.
1003. You have been over that country? Yes.
1004. Is it not admirably adapted not only for dairying purposes, but also for any purpose that any farmer might think fit to put it to? Yes, it is no doubt excellent land; but, as I said before, I do not consider it as good as that on the more northern rivers. The rainfall is greater and the soil is better, I think, on the Richmond and the Tweed.
1005. But is not the rainfall in the Manning district remarkable for its regularity? I know that at the time we were there it was remarkable for its scarcity. We had to drive about 30 miles for a drink for the horses.
1006. But you admit that the soil is remarkably rich? Yes.
1007. Fit to grow anything? Yes; there is splendid land in the neighbourhood of Dungog, too, on the Williams.
1008. It is only here and there that you meet with indifferent land along the line? I do not know. You pass through a great deal of it on the A.A. Co.'s land. When you get back from the river, with the exception of the creeks, from Dungog practically through to within 3 or 4 miles of Gloucester on the main road, it is generally very indifferent, very sour. The same remark applies to a lot of the land between Paterson and Dungog—there is a lot of very sour country.
1009. In giving the information that you did to Mr. Wright that, I think, only 25 per cent. of the land was good, had you taken into consideration all the good land below Taree on the Manning? Yes; there is only a very small proportion of the land fit for agriculture. There is a settlement there, but when you travel over the country yourself, and see that so much of it is of an inferior character, you can see much better than by merely looking at the map what proportion of good land there is.
1010. In forming your estimate, did you take into consideration that traffic at all? The whole of the passenger traffic was Taree traffic.
1011. I mean between Taree and the heads? The whole of the dairying and passenger traffic, but I did not take into consideration any maize. I could not conceive it possible that people down there would cart their produce, or bring it by drogher to Taree, and then pay 20 per cent. more than they are paying to-day.
1012. From inquiries that you made down there, did you not find a lot of discontent amongst the people as to their isolated position, as far as getting their produce to market was concerned? You find that everywhere where they want a line. I found that out at Dural.
1013. But are not the cases dissimilar? It is only a difference in degree.
1014. Have you ever travelled from Taree to Sydney by water, or *vice versa*? No; I have never been in the Manning Heads; but it is no worse than Ulladulla.
1015. You have never been to the Manning Heads? No.
1016. Therefore, you can hardly form an idea, can you, as to the discomfort to passengers travelling to Sydney by water, and the delays that probably take place when they are sending down their maize and other produce? Those occur at all bar rivers, but I do not think that they are of such a character as would induce people to pay the much higher rates.
1017. Do you think that the case would be met if the river entrance were made safer and more certain? I think it is a far more legitimate thing for the residents of the Manning to press for than for a railway. I think that it is the natural highway, and that which is capable of being improved should be improved.
1018. You think that that would be a more desirable way of spending the public money? I think so.
1019. Can you tell the Committee whether the receipts on the South Coast Line have decreased compared with what they were a few years ago? Taking away the traffic which has developed at Dapto, which is of an abnormal character, and the coal traffic, which from another point of view is also abnormal, the general receipts from goods are less. The passenger traffic is greater, but that is chiefly due to tourists.
1020. Of course, the South Coast Line has always shown a loss; but I meant whether that loss had decreased? Yes, it has decreased from the causes I have mentioned. The line has become better known, and is used more by tourists; and the opening of the Dapto Works has developed a very large traffic in the ores and other accessories connected with the smelting operations, and there has been a large increase in the volume of coal carried.
1021. It is chiefly owing to passenger traffic that the loss has been lessened? Yes; passenger traffic and carriage of minerals.
1022. Did you report on the South Coast Line, or can you recollect the nature of any report that was put before Parliament before the South Coast Line was determined upon? No; I had nothing to do with that.
1023. If the loss is steadily decreasing on the South Coast Line, is it not possible that a similar state of things may take place on the North Coast? No; for the same reasons are not likely to operate on the North Coast Line. There are large coal deposits on the South Coast Line, the working of which is diminishing the loss on that line. Then there is the opening of the smelting works under exceptionally favourable circumstances, having coal and other adjuncts to smelting close at hand; and then, chiefly, the fact of the district lying close to Sydney, and its becoming a big tourist resort. The increase has been more in passenger traffic than in anything else.
1024. But are you not aware that coal has been discovered along this line, somewhere in the neighbourhood of Stroud and Gloucester? But you would not seriously talk about the haulage of coal for 58 miles, would

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would you, when it cannot be successfully developed within 30 miles of Newcastle. The Greta pits, with some of the best coal in the Colony, are practically idle.

1025. But if this line became an established fact, the coal would be sent? Where would they send it to.

1026. The nearest port—possibly Port Stephens? There would be no communication with Port Stephens. Besides, we have too much coal opened up already.

1027. The nearest port, of course, would be Newcastle? Yes; and that would be about 50 miles away.

1028. Is there not a large population at Newcastle, and round there, and would not the opening of this line tend to open up business relations along the proposed North Coast Line? You see that all the towns are situated, as I have pointed out, practically on navigable waters. As regards the scenery, I do not think that the Newcastle people would find enough interest in it to go out into the bush by means of this coast line.

1029. Not even to see the beauties of the Manning River? No; not even to see the beauties of the Manning River.

1030. Is not the land so fertile and rich, and the rainfall so satisfactory, that a man and his family could live on a very small area of land? I daresay he could if he were industrious.

1031. And if the A. A. Company's land were thrown open, would not a very large population indeed settle there? That would largely depend on circumstances.

1032. And ultimately bring enough traffic to the line to make it a paying one? You must remember that there are not 484,000 acres of the A. A. Company's land undeveloped. I suppose that the land capable of agriculture or settlement is under 40,000 acres. A very large proportion of that 484,000 acres has been alienated by the Company. They have either parted with the fee simple, or it is under lease. The land which they are holding, and I am under the impression they will hold for a considerable time, is on the Gloucester and Barrington Rivers, and on the Manning. That is the richest portion of their land, and that is the land they are not prepared to part with. It is only their other estate they have parted with, or are prepared to part with. I may mention that the land they are retaining for themselves is about the only part of their run which is fattening country. All the rest of their run is sour country, which is fit only for breeding store stock.

1033. In forming your estimate of traffic, did you reckon on the basis of a daily train service? No. To lift the traffic that we would have to lift I provided for a daily mail train, and for a tri-weekly goods service at least. We would have to run that over these grades in order to lift the traffic I have estimated for, and probably we should have to run two trains a day.

1034. Your great fear is that you would never be able to compete with the steamer service? Yes; that has been our experience wherever we are in competition with the water. I will illustrate this way: to-day the only goods we carry from Parramatta are, practically, fruit. All the other Parramatta goods traffic is carried by river or road.

1035. *Vice-Chairman.*] Is it not a fact that in addition to the river competition you have between here and Parramatta, there are no less than four carrying companies doing business between here and Parramatta? Yes; but I mentioned the river as being pertinent to this inquiry.

1035. *Mr. Roberts.*] In forming your estimate of passenger traffic on this line, were you guided in any way by the number of people who travel by steamer? No. I took rather the estimate of population of the districts; for instance, the Cooma district which is situated in about the same way; if anything this district is more favourably situated than the Cooma district is for steamer traffic.

1037. Are you not aware that the people are prohibited from travelling on account of the uncomfortable voyage they have to undertake owing to the uncertainty of getting out at the Manning entrance, the small steamers that must necessarily run there with a very small draught of water, and the possibility of getting caught in a south-east gale in going to Sydney? That is all right. But I do not think that you would rest assured that, assuming a line were built there to-morrow, that bar is going to remain in its present condition.

1038. It has been like that for the last twenty years? But according to the pilot's report in 1891, I think there were only three failures to get out of the bar in eighteen months.

1039. That may have been a very favourable year—every year is not alike? I took the year that was current at that time.

1040. In order to lay stress on any argument of that sort, you really want to take ten years? Personally, I would not attach the least bit of importance to that, in view of the experience we have had. I daresay that if you were to look up the reports of the Committee you would find that one of the strongest arguments in favour of a railway between the Richmond and the Tweed was that the Tweed was an absolutely impracticable river, and that the only means of giving relief to the residents in that locality was to abandon the river Tweed, build a railway, and improve the entrance to the Richmond. During the construction of that line, as a matter of fact, a deviation was made for the purpose of meeting the requirements of residents on certain flats of the river, and before the line was finished, there were two snagging dredges at work in the creek to which the line had been diverted for the purpose of getting the produce off the adjoining land, and I think that for one year two dredges and 300 men were employed in improving the entrance to the Tweed River. That occurred during the construction of the line, one of the strongest arguments in favour of which was that, the Tweed entrance being impracticable, there was only one way of giving relief, and that was to build a railway. Having that within my knowledge, I cannot for a moment assume that the Manning is going to be abandoned.

1041. Of course this line, if it should ever be gone on with, would be only a portion of a line, to go as far as Grafton;—have you been right over that line—the dotted line—as shown on the map? No; but I know it from description.

1042. You know it, I suppose, because of your official position, but you have not been over it personally? I have not been over it personally, but one of my officers has reported upon it.

1043. Would this line have been placed on a more favourable basis if the whole line had been put before the Committee—would you have looked upon it with a more favourable eye? Personally, I should regard it as the maddest scheme ever conceived, especially in view of the experience we already have with the Cooma line. I never conceived of such madness as running a line absolutely parallel with and on the coast.

WEDNESDAY,

WEDNESDAY, 2 MARCH, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Joseph Clarke, Inland Mail Clerk, Postal and Electric Telegraph Department, sworn, and examined:—

J. Clarke. 1044. *Mr. Hassall.*] You are aware of the proposed construction of a railway from West Maitland to Taree? Yes.

2 Mar., 1898. 1045. You have, I believe, some information to give us? Yes.

1046. Will you kindly make a statement to the Committee? It is in reference to information showing the conveyance of mails between Maitland and the Manning River, and intermediate places, by road, and the cost of conveying them between Sydney and the Manning River by sea. The mails between Sydney, Maitland, and the Manning River are conveyed by road *via* Hexham, Raymond Terrace, Stroud, and Gloucester to Taree. There are also lines running from Maitland to Dungog along the proposed line of railway. Beyond Dungog, towards the Manning, there is only a very small line, across what they call the Monkerais to Weismantel's.

PARTICULARS of Contracts for the conveyance of mails overland between Hexham Railway Station, Raymond Terrace, Gloucester, and Taree, with the Branch Service between Gloucester and Copeland North; Taree and Wingham; West Maitland, Paterson, and Dungog; and West Maitland and Clarence Town.

Contractors'		Postal Lines.	Distance in Miles.	Frequency of Communication.	Mode of Conveyance.	Annual Amount payable to Contractors.	Date of Termination of Contracts.
Names.	Addresses.						
Wlm. M. Keogh	Warranna, Coonamble	Railway Station and Post Office, Hexham;	1	No. of times per week. Once a day. Thirteen or more. Six or more. Six	Coach, 2 or 4 horses.	£ 675 0 0	31 Dec., 1899
		From Hexham Railway Station to Raymond Terrace; and	6				
		From Raymond Terrace to Hexham Railway Station and	6				
		Raymond Terrace, Limeburner's Creek, Booral, Stroud, Telegraphy, Clarendal, Weismantel's, Ward's River, and Gloucester.	59				
Alexr. Corbett...	Cudal.....	Gloucester, Krumbach, Kundibakh, Bo Bo, Tinonce, and Taree.	48	Six	4-wheeled vehicle, 2 horses.	673 15 0	31 Dec., 1899
Edward Corbett	Barrington	Gloucester, Barrington, and Copeland North.	9½	Six	4-wheeled vehicle, 2 horses.	59 0 0	31 Dec., 1899
Wlm. F. Swan...	Wingham ...	Taree and Wingham, <i>via</i> Woolla Woolla.	8½	Six	4-wheeled coach, 2 horses.	47 0 0	31 Dec., 1900
Herbert A. Fry	Paterson	West Maitland, Largs, Woodville, and Paterson; and	13	One ... Six	Coach, 2 or more horses.	135 0 0	31 Dec., 1899
		West Maitland and Paterson; and	11				
Thomas Chamberlain.	West Maitland.	Paterson, Wallarobba, and Dungog	22	Six	2 or 4 wheeled vehicle.	103 0 0	31 Dec., 1898
		West Maitland, Largs, Woodville, Seaham, Glenoak, and Clarence Town.	26				
						£ 1,692 15 0	

1897.—Cost of conveyance of the mails by sea between Sydney and the Manning River..... £31 8 0.

The average number of mail-bags per day from Hexham to Taree is 40, and they weigh 12 cwt.; from Gloucester to Copeland North about 4 a day; Taree to Wingham about 3 a day; West Maitland to Dungog about 10 a day,—the weight from West Maitland to Dungog is about 1½ cwt. per day; from Taree to Hexham the average is about 33 bags a day, weighing altogether 5 cwt.; Copeland North to Gloucester about 4 bags a day; Wingham to Taree about 3 bags a day; Dungog to West Maitland about 10 bags a day, weighing about 1 cwt. That is all the information I have in regard to the prices of contracts, the number of bags, and the weight of mails.

1047. The total cost by land is £1,692 15s. per annum, and by sea £31 8s., or a grand total of £1724 3s? Yes.

1048. Those places are apparently all served by daily mail? Yes; seven times weekly to Paterson, and six times weekly to the other places.

1049. What does "13 or more times," or "6 or more times," mean; do you make any allowance to the contractor for conveying the mail more times per week than stated? All the service is included in the £675. The contractor goes at different times from the railway station to Hexham, and to Raymond Terrace, and comes from Raymond Terrace to the railway station. He goes in the morning and afternoon, and on Sunday morning, making altogether thirteen times a week.

1050. And in the event of his having to go more times, there would be no increase in the cost? Yes, there would be; but thirteen times is enough for Raymond Terrace—twice a day, and once on Sunday.

1051.

1051. How long does a letter take to go from Sydney to Taree by road, and by steamer? Sydney to Taree—posted here 4.45 p.m., Monday to Friday, and on Sundays, reaching Taree at 7 o'clock next evening. J. Clarke.
1052. That is by train to Hexham, and then by coach? Yes; the time between postage here and arrival at Taree is about 26½ hours. When the mail is sent by steamer, ordinarily speaking, we calculate that the steamer starts at about 4, 5, or 6 o'clock, and they hope that she will get there about next day at noon—any time up to the evening. She may get there a little before noon. We look upon the steamer as being fast to Taree. 2 Mar., 1898.
1053. Then, practically, the time of the journey by steamer and by land is about the same? Yes. Of course the steamer is supposed to get there more quickly; but sometimes the steamer calls at Newcastle; or if the wind happens to be blowing a little harder than usual the steamer takes a little longer; but taking all things into consideration the time is very much the same.
1054. *Chairman.*] How many hours does it take from Sydney to West Maitland? A little over four hours.
1055. Therefore, to Taree, the time is nine hours as against twenty-four? You get up to Taree in about ten hours as against twenty-four.
1056. *Mr. Hassall.*] Do you find the mail matter increasing in that quarter or decreasing? I cannot say exactly; but it is sure to be on the increase.
1057. Have you any idea whether the contracts are being taken at less prices than formerly, or at increased prices? Lower than they used to be—from £1,530 to £1,348 15s. I am alluding to the Raymond Terrace service.
1058. But that is pretty well the case all over the country? In most cases; in some places not. It is not so in the case of Narrabri and Walgett.
1059. In the outlying districts you have to keep up the rate to enable them to get through satisfactorily? No, the main lines, such as from Narrabri to Walgett, is where the price has risen a little, I suppose through the bulk of parcels, &c., getting larger.
1060. That is owing to bad roads, and forage having to be brought from a distance, which necessitates the feeding of horses at considerable cost? Yes.
1061. In the district to which you are now referring there is practically plenty of cultivation, and forage may be cheap; therefore, mails can be conveyed more cheaply in that portion of the country than in outlying districts? Yes, much more cheaply.
1062. The people of the district have no complaint, I presume, against the nature of the service—they are satisfied with it? Generally speaking, no complaint. Wingham, I think, is about the only place where they cry out about it. The mail is due there about 8.45 p.m., and if it arrives to time it is delivered that night; but if it happens to be half an hour late, or say does not arrive until 10 o'clock, they do not get the letters until next morning. Of course, the first part of the journey is by train for 100 and odd miles in pretty sharp time, and if the train is a minute or two late, it adds on gradually a minute or two late and the mail soon gets into half an hour late at Wingham.
1063. The people Wingham get a daily mail? Yes.
1064. So even if they are not able to reply to a letter to-day, there will be no difficulty in their doing it to-morrow? Quite so. Then, there is the steamer mail to Taree and places on the river. The only times they are upset is the same as any other place—during flood times, or south-east gales, and of course that upsets the whole running of the land lines there as well as the steamers.
1065. But I presume they are not upset there more than in other parts of the country? Not more than on any other part of the coast, if the wind is blowing from the south-east and they cannot get in, and so on.
1066. As far as those districts are concerned, the construction of the proposed railway line would mean, perhaps, an accelerated service? Yes, it would mean a very much accelerated service, but at very much increased cost. We pay £1,692 15s. for the contracts named. If the railway were built, mail contracts, in connection with the railway, and necessary communication to the places, would cost, say, £800—that would be a saving of £892 15s. Then if we pay £12 per mile per annum for the railway service—the lowest rate that we do pay—that will amount to £1,368. Deducting £892 15s. from £1,368 will leave £475 5s. If we were to pay £20 per mile, which, in the case of this railway we probably would pay, the matter would stand in this way:—there would be £2,280 for the £20 per mile per annum for 114 miles, and deducting £892 15s. saving on the contract, the cost would amount to £1,387 5s.
1067. There would be an increased cost of £1,387 5s. as compared with the present contract prices? Yes.
1068. Would the construction of this line serve the district as well as the main and branch lines that you have enumerated? Of course those branch lines that I have mentioned would be covered by the £800 we should pay to run to and from the railway, and that of course would give the people better facilities, because they would receive the mails earlier and be able to despatch later.
1069. But you have to allow something for the receipt and dispatch of mails? That is allowed for in the £800.
1070. *Mr. Roberts.*] Is a mail made up for the Manning River by every steamer that leaves Sydney and touches there? A mail is made up for every steamer that will suit. Some steamers do not suit. If we know that they are going into Newcastle they do not get anything, for they go there to coal, and remain there until the next morning, and therefore would be behind the overland mail.
1071. Do they carry the mails by steamer by contract or at so much per pound? At 1s. 4d. per pound for letters, and 3s. per cwt. for newspapers and parcels or anything else.
1072. Then the only contract is overland? Yes.
1073. Have you any record as to the average time in which a letter, going by sea, reaches the Post Office at Taree? The journey takes from, say, 2, 3, 5, or 6 o'clock up to about noon next day, or 6 in the evening, or perhaps later; you may say from 18 to 24 hours by steamer.
1074. It takes eighteen hours to go from Sydney Heads to the Manning Heads, does it not? About that.
1075. And it takes about six hours more to get up the river? Yes.
1076. Are not the mails very often delayed owing to various causes, such as bad roads? Of course, if there is bad weather, or floods, or anything of that sort, they are late; but, generally speaking, they run very well now. There is a very good contractor on this end, and a very painstaking man between Gloucester and Taree, a man named Corbett. Delays do occur, even on the railways. They have occurred between Newcastle and here, and Hexham, and so on, when the railway line has been under water, or that kind of thing has happened.
1077. Is the lower rate at which the mails are now carried overland, due to the improvement of the roads? Possibly partly so.
- 1078.

- J. Clarke. 1078. Or is it due, do you think, to excessive competition? Partly to the better roads, and also to competition keeping the prices down.
- 2 Mar., 1898. 1079. When does the mail close overland for the Manning? At 4:45 p.m., Monday to Friday, and on Saturday at 9:30 p.m.
1080. When would those letters be delivered into the hands of the addressees at Wingham? If they run right through to time, they are delivered next evening, about 9 o'clock, or a little later. But when they are behind time from any cause, of course, they have to lie over until the next morning, unless the postmaster is of an obliging disposition, and delivers whenever they come in, which postmasters do sometimes.
1081. Is the postmaster allowed to deliver at any time of the night if he thinks fit? If he likes to oblige the people he can do so. We have no objection. But I think that if they arrive after a certain time, he does not deliver until the morning—that is an understood thing between them.
1082. Do you know anything of the progress of the Manning;—are you able to say whether it is a progressive district? I know nothing beyond just what I hear or read in the papers, in regard to that matter.

Thomas Rhodes Firth, Engineer-in-Chief for Existing Lines, Department of Railways, sworn, and examined:—

- T. R. Firth. 1083. *Chairman.*] What was your previous position? I was Chief Assistant Engineer in the Construction Branch.
- 2 Mar., 1898. 1084. And, therefore, you have a knowledge of the line before the Committee? Yes; I have a slight knowledge of the district it is to go through.
1085. From your reports you seem to have been there? Yes.
1086. *Mr. Roberts.*] Have you prepared any statement in regard to the proposed line of railway from Maitland to Taree? I reported on it at the time I made an examination in 1889, but I have had nothing to do with it since.
1087. You have not any written statement to hand in? No; I will have to refresh my memory by looking at my previous report.
1088. Can you recollect when you were last over the proposed line of railway? I was on that line from June to September in 1889.
1089. What was the nature of your commission—to report as to the best route? To examine the previous surveys that had been made, and report on what I thought would be the best route to take, and to suggest any alterations or improvements that I could.
1090. Starting from what point? From the Hunter River. I took the whole of the surveys that had been made from the Hunter River to Grafton.
1091. After leaving Newcastle, where did you commence your investigation? I commenced at Grafton. I went by steamer to Grafton, and commenced at that end, and I worked all the way down to Wingham, and then I came on to Stroud. I then went back by Bulladelah to Wingham, and then came up the valley of the Gloucester and the Barrington, and then examined the country very closely between there and Maitland, going over the whole of the surveys that had previously been tried.
1092. Is the line, as submitted to this Committee, the one that you recommended? I believe it is.
1093. That is from West Maitland to Taree? Yes; I do know that surveyors were put on to carry out the improvements that I suggested—an alteration of the route from Gloucester especially. That was the principal deviation that I made—from Gloucester to Wingham. The others were minor ones.
1094. Can you recollect what the different routes submitted for your inquiry were;—was one from Morpeth? Yes; the first one was from Morpeth, *via* Bulladelah, to Wingham. There were two starting from Morpeth. One was a continuation of the existing line; whilst the other branched off between the Morpeth station and East Maitland, if I remember rightly, crossing Phoenix Park.
1095. After giving the various routes every consideration, did you come to the conclusion that a line from West Maitland to Wingham and Taree, by way of Gloucester, would be the preferable one? I did; but a slightly the most expensive. The cheapest line that could be made is through Bulladelah; but it is through bad country. It would intercept the navigation at Morpeth, and also, I think, in crossing the Williams; and I considered that it ought to be left out of the question almost altogether owing to the nature of the country. It is not such good country by the Bulladelah route, as by the one *via* Maitland.
1096. The Bulladelah line would be nearer the coast? Yes; closer to the coast, and, as I say, not such good country.
1097. Were you favourably impressed with the land through which the proposed line would pass? Yes; it goes through very good country all the way.
1098. May I ask you, as one who has been over every inch of the line, to describe the character of the country from West Maitland to Dungog;—is that fairly good agricultural land? There is a lot of good agricultural country, and I think that the rest of it is good country. From Maitland to Dungog there is one range to cross; but it is all good grazing country.
1099. Is not Dungog the centre of a large settlement? It seemed a very thriving little township when I was there.
1100. Is it not a municipality? I do not know.
1101. Then from Dungog to Stroud? I did not propose that the line should go to Stroud—not within 6 or 7 miles of it, I think. That would be going too far out of the way. The country is not quite so good; there are some ranges there. It is rather hilly country between Dungog and Stroud; but going up the creek there is some good agricultural land, and it is all good grazing country. Even the ranges, I think, are good grazing country.
1102. When you say good grazing country—bearing in mind the regularity of the rainfall—is it not fair to assume that a man and his family could live on a small area of land there? Yes; I think they could.
1103. In fact all along the line, with the exception of one or two hilly places, would it not strike you as being a country destined to become the homes of thousands of people? It would do very well if cut up into small farms. I think that farmers would be able to live on it, taking into consideration the rainfall, and the nature of the country altogether—that is, if they could get their produce away, of course, and find a sale for it. They could grow the produce. That is as far as I can say.
1104. Where would the influence of the carriage by river come in? Nearly all the way through, unfortunately—that is to say, at the Paterson in the first place, and at Dungog. 1105.

1105. Do the steamers go right up to Dungog? I think small steamers do—droghers—not coastal steamers. The next river to cross would be the Manning, at Wingham. T. R. Firth.
2 Mar., 1898.
1106. When you have passed Gloucester, does not the land appear to be more fertile as you approach Taree? It is not much better than round about Paterson. I think that from Paterson to Dungog the country is very fair. It is very good land all through from Weismantel's down to the Manning—very good agricultural country. It was all used as grazing country when I was there, but there were apparently very few cattle on it.
1107. Are you referring now to the A.A. Company's land? Chiefly. Of course there is a long length of that. It is nearly all the A.A. Company's land down to the Manning.
1108. Can you give the Committee any information as to what the A.A. Company intend to do with the land in the event of a railway being constructed through it? No, I cannot.
1109. Did it appear to excite any curiosity amongst the residents there? There are very few of them. I scarcely saw anyone, except at the hotels where I happened to stay all night.
1110. When you get to Wingham, is there not a large settled population there? Yes. In Wingham and other townships, of course, the people are very anxious for a railway, and I think I remember its being said that it was very probable that the A.A. Company would cut up their land if a railway were constructed; but that is merely a surmise—there was nothing certain.
1111. Are not Wingham and Taree municipalities? Yes, they are both municipalities, and were when I was there.
1112. Of course, in coming down from Grafton, you came through what is known as the Lower Manning—that would be between Taree and Cooperook? Yes; I was down at Cooperook.
1113. Do you know the Cundle flats? Yes; I was across there, and I also crossed the Lansdowne after leaving the Manning.
1114. Is not the land there of a remarkably fertile character? Yes; that is all rich country around there.
1115. Suitable for dairying or any other purpose that a farmer might think best to devote it to? Yes.
1116. Have you ever been through the entrance to the Manning? No.
1117. Have you heard of the difficulties of navigation there? Nothing that I can speak of in particular.
1118. Have you never heard of the difficulties that the farmers have in getting their produce to market, owing to the shallow water upon the bar at the Manning? Yes, I have heard of the bar across the Manning, and of vessels, of course, being delayed, but it is a thing which has not interested me very much.
1119. Would it not strike you that the people are isolated, as it were, from the rest of the world, owing to the difficulty in getting to the metropolis—they must either encounter the discomforts and the peculiar dangers of the sea voyage, or they must travel about 115 miles by coach to meet the railway system of the Colony? It is not a nice place to be blocked up in for a week by the floods, as I happened to be.
1120. Would you not regard the proposed railway as one that could be easily constructed—there are no great engineering difficulties? No, most certainly not.
1121. What is the cause of the estimated cost being so high? It is broken country right throughout, and you have all those rivers with extensive flood approaches, and there are several tunnels. These make up the expense. I may say that in suggesting an alteration in the line from Gloucester to Wingham, differing from the original surveys, of which there have been two or three, I made a saving in tunnels alone of about £80,000. Still the line is a very expensive one. There are nearly 1,500 yards of tunnelling on that length.
1122. On what part of the line is the greatest tunnelling? Between Paterson and Dungog, and then again between Dungog and Weismantel's. I have not seen the result of the survey, but I believe that there are one or two other tunnels on the Barrington in going down to where I proposed the deviation. Mr. Burge carried out the surveys that I proposed, and he says that there would be 1,577 lineal yards of tunnelling, whereas before there were, I think, 3,100 lineal yards of tunnelling.
1123. You know the Camden Haven District? Yes; I was riding about there.
1124. Of course this line would serve the Camden Haven people if it were constructed? I think they would still use the water.
1125. But the Camden Haven River is not navigable? It is not navigable for large boats, but I think the farmers use it for taking their produce down.
1126. That would be in small boats? Yes; small flat-bottomed boats.
1127. But it is not navigable for steamers? No, not up to the point where the main road crosses, or where the line crosses. The proposed line crosses the Camden Haven, I think, about a $\frac{1}{4}$ of a mile above the road, if I remember rightly.
1128. Going north from Taree, does the country improve, I mean in fertility, and as to its suitability for the construction of a railway? It does not improve, or it improves very little, as regards the cost of building the line, and as to the country you may class it all as the same. On the flats where the rivers are crossed—and there are, of course, a great number of them—there is very good country. I think there are one or two ranges that are not very good grass country; but generally speaking the direction that the railway takes is through good country, right throughout.
1129. Around Kempsey there is a very large population? Yes; there is some splendid flat country there.
1130. And the same may be said about Port Macquarie, and up the Hastings River? Yes.
1131. Are not those people similarly inconvenienced as the people on the Manning are in the way of getting their produce to market? Of course they are all labouring under the same difficulties. They are dependent on wind and tide.
1132. Would you care to express an opinion as to the desirability of constructing this railway? I do not mind expressing an opinion, but I can only say that I do not think it would pay.
1133. Having in view, I mean, the dangerous entrances that have to be encountered? That is a question on which one can scarcely express an opinion. Of course, it is very desirable if you can improve the means of transit for the people, both for themselves and for their produce; but if the question is, will it pay to do so, that is another thing. I do not think it would pay, owing chiefly to the line being such an expensive one, and I do not see any means of reducing the cost much.
1134. You feel sure that the cost has been brought down to the minimum? I believe it has. I was three months riding about on that line, and I made a thorough examination, having the previous survey as a guide, and wherever I saw any difficulties at all, I would spend two or three days trying to find out a better route for the railway.
- 1135.

- T. R. Firth. 1135. Is your fear of the line not paying due entirely to the great cost of it, or do you fear the competition of the steamers? Owing to the great cost, it would require a lot of traffic to make it pay, and it would always have the water traffic to compete with when that could be utilised. If that country were perhaps somewhere further back and without water-carriage it might be advisable to make the line.
- 2 Mar., 1898. 1136. If there were no water competition, you think that, with the fertility of the soil, and the regularity of the rainfall, and the general adaptability of the country for large settlement, there would be every probability of the railway paying in the near future? Yes, I think so.
1137. Would those remarks hold good for the whole of the line from West Maitland to Grafton? Yes, I think so. There is no doubt that there are minerals in that part of the country, too.
1138. Can you name them? They are getting gold up there, and they get alum, I think, near Bulladelah. I cannot call the minerals to mind just now, but I have a faint recollection that there are other minerals there.
1139. In fact, the resources of the whole district are above the ordinary, are they not? Yes, if you take into consideration the rainfall.
1140. Having in view the proximity to the large city and districts of Newcastle, and other towns, would there not be a probability of a large tourist passenger traffic coming on this line? No, I do not think so. Of course if it were connected with Brisbane, there is no doubt that it would have that traffic that way, but until it was connected with Brisbane, I do not think the tourist traffic would be much.
1141. But there is very fine scenery to be found at the head of those rivers? Yes, but you can get fine scenery without going so far as that.
1142. Similar scenery? Yes; you do not want to go further than the Illawarra line.
1143. What other part of New South Wales would you compare with it, as regards its beauty? You cannot beat the Illawarra line for coastal scenery.
1144. There is a large passenger traffic there, is there not? Pretty fair, not very large—not so large as one would expect.
1145. Would it be fair to expect a similar development on the North Coast line? I do not remember seeing any place on the North Coast line that you could possibly compare, in any sense, with the Illawarra line for scenery.
1146. Have you ever been up the Manning River, beyond Wingham? Only where the line goes. I was not looking out for scenery.
1147. Have you been to the head of the Camden Haven River? No.
1148. Nor up the Hastings? No.
1149. So it is quite possible that you have not had the opportunity of observing this fine scenery? No, I did not.

THURSDAY, 3 MARCH, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

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FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Thomas Rhodes Firth, Engineer-in-Chief for Existing Lines, Department of Railways, sworn, and further examined:—

T. R. Firth. 1150. *Chairman.*] The Committee has received a letter from Mr. R. A. Wiseman of Clerkness, Bundarra, in which, referring to the route of this proposed railway, he says:—

3 Mar., 1898.

In the year 1875 I was in charge of the A. A. Co.'s cattle station, "Gloucester." The flood-water from a big flood that took place that year was over the telegraph poles where they cross the Avon Flat from Gloucester to Taree. The survey or line of railway crosses this flat or swamp, and when it was being surveyed, I pointed out to the surveyor the height of the water. I was not believed. If the railway is made from Maitland to Taree as surveyed across the Avon Swamp, and a flood takes place like the 1875 one there, the embankment will all be under water. The flood there is caused by back water. The Gloucester and Avon Rivers with Morgan Creek all flow into the Barrington River within half a mile of one another, in fact a quarter of a mile would cover the three courses.

1151. Do you know the position referred to? I think so. I know the country near Gloucester.

1152. Have you any memo. about it? I have a memo. about the crossing of the river Avon, but not giving a description of the floods to that extent.

1153. What does your memo. say? I made a note as follows:—

The shortest crossing over the Avon is got (that is on the original survey), but it will require long flood openings in addition to the main creek.

And I remember noting that the floods did spread out long distances. I made this note with a view that when the surveys were carried out I should see that sufficient openings were provided. I see that after I had decided that the other line—that is the one going round the Barrington, was the better, I made the following note:—

If this line is tried, it commences at about 83½ miles. High land can be kept for some distance, and a better crossing to the Avon, the Barrington then being followed until a low gap is found, to cross into Baker's Creek, &c.

So I do in the higher ground with the deviation that is now being carried out. I do not think there is anything to fear with regard to the floods going over the tops of the telegraph poles. There will be big floods there. But if ever the water got over the telegraph poles there it would be over all the land between Newcastle and Maitland, I presume.

1154. *Mr. Hoskins.*] Gloucester is pretty high? Yes; there is a good fall from there down to the Manning. It is one of those circumstances that possibly might arise by those three rivers coming up, but I think that no one would be hardy enough to stick a railway up that height.

1155.

1155. Even supposing that the floods should be pretty high, there is plenty of spread for the river without its doing any great harm to Gloucester? I do not think it would get into Gloucester. I was told that it got over the flat in front of "Single's Hotel." T. R. Firth.
3 Mar., 1898.

1156. *Chairman.*] Can you describe the country from Taree to Kempsey? Somewhat similarly to the description that I have given in my report.

1157. And from Kempsey to Coff's Harbour, and Coff's Harbour to Grafton? It is all in the report.

1158. You make no statement in regard to the line to Casino, or onwards to Grafton? I merely provided for the crossing of the river at Grafton with a view of a continuation to Casino.

1159. All the rest of the information that you could give us is in your report? Yes. I provided for crossing the river at Grafton, and likewise for a continuation of the line to Glen Innes if necessary. I placed the station in such a position that it would be suitable for the three lines. I may say that I suggested an alteration from Coff's Harbour to Grafton. The original survey went right along the coast, and then turned off nearly at right angles to Grafton. I suggested a deviation through the Orara Valley, and I believe the survey has been carried out. That was to get better country. There is very fine country in the Orara Valley. In the other part the country is really not much good. It is very poor between the range and the water. By crossing the range we would get into the Orara country, which would, at all events, probably provide traffic down to the Clarence at Grafton. I believe that that survey has been adopted.

1160. The survey located by red dotted lines on the map is practically the line that you suggested? Yes, down Bucca Creek.

Richard Cooke, Secretary, North Coast Steam Navigation Company (Limited), sworn, and examined:—

1161. *Chairman.*] Have you a statement of the fares and freights to the Manning River from Sydney? Yes. R. Cooke.
3 Mar., 1898.

1162. What is the freight per ton? 12s. 6d., either dead weight or measurement.

1163. Is that for maize? No; maize is carried at a cheaper rate.

1164. What rate? Ten shillings a ton—1s. a bag, drogherage included—that is, taking it from the river bank and droghering it, perhaps, 20 miles.

1165. How much of that 10s. per ton do you estimate for drogherage? One fourth.

1166. If a railway were constructed to Taree, would the maize still require to be droghered? Certainly.

1167. Therefore, a railway from Taree to Sydney must carry maize at the rate of 7s. 6d. per ton to equal the ocean carriage? There is very little maize grown at Taree.

1168. But there is on the Manning? Yes; but we get the maize on the tributaries and small creeks.

1169. Do you drogher to where your boat lies? Yes.

1170. And instead of doing that, it would be a case of droghering to where the railway touches the river? Quite right.

1171. The droghering would be just the same, and if you take one-fourth off your 10s. per ton rate, for carriage by ocean to Sydney you get 7s. 6d. Therefore, the train would have to carry from Taree to Sydney under 7s. 6d. to beat you? Yes.

1172. Your freight is 12s. 6d. for ordinary goods? Yes.

1173. Have you any special rate? Yes; a package rate for anything below half a ton.

1174. What is that? For parcels we get 1s. At the tonnage rate it might come to £2 or £3 a ton. Two-thirds of the goods carried to the river go at the 12s. 6d. rate—that is flour, sugar, and other necessaries of life.

1175. *Mr. Wright.*] 12s. 6d. is the minimum rate? Yes.

1176. *Chairman.*] What proportion of the total freight carried consists of packages, they being carried at a higher rate than the other goods? One-third. Two-thirds is carried at the 12s. 6d. rate—flour, sugar, salt, and that sort of thing; but parcels, or a chest of tea, are carried at the package rate.

1177. What are your passenger fares to the Manning? First-class—25s. single, £2 return; second-class—15s. single. We have no return second.

1178. Time of journey? Twenty-four hours; and if we go to Wingham, about thirty hours. We generally come down more quickly. We go for a tide, and always allow a few hours; but the journey would average from seventeen to twenty-four hours.

1179. What does your up-freight to the Manning consist of principally? Flour, sugar, tea and salt. The up-freight is very small.

1180. And your down-freight? During certain portions of the year we are full.

1181. What with? Maize.

1182. What else? Eggs and poultry

1183. Butter? Now.

1184. Much butter? About 5 tons of butter a week, I suppose.

1185. Are you the only company trading to the Manning? The only steam company.

1186. What proportion of the trade is done by sailing vessels? I could not say.

1187. Is it small? I think so—mostly timber.

1188. Is it worth considering? I think not.

1189. Do you bring much timber in your steamers? Very little; a few sleepers for the Railway Commissioners at times.

1190. Is much timber coming out of the Manning now? Not much.

1191. Principally hardwood? Yes; girders.

1192. Have you a statement showing what you carried from the Manning during the last twelve months? No; but I can give you a very good idea, if you reckon the output of maize, which is the principal thing, and of which on an average, since 1893, we have carried about 50,000 bags a year.

1193. Is it increasing at all? I do not think that there is any more land under cultivation. The quantity of maize carried by us just depends on the seasons. If a flood comes, of course, we do not get 20,000 bags; but we have averaged 50,000 bags since 1893.

1194. For the droghering and carriage of that you receive a total amount of £2,500 a year? Yes.

1195. Do you know what the rate for timber per 100 feet is? I think about 2s. 6d.

1196. Is that in logs? Yes.

- R. Cooke.
3 Mar., 1898.
1197. Does it come away from there in the log? Of course, there are a great number of girders; but I cannot speak accurately about the timber, because I never watch it. The steamers never look for timber freight on the Manning.
1198. In point of fact, it goes by sailing boat, and not by you? Yes.
1199. What else do you carry besides maize? Butter and poultry.
1200. Five tons of butter a week;—how much is that worth a ton to carry it? One shilling a box we carry it for, and there are forty boxes to the ton. We carry that in a cool chamber.
1201. That is £2 a ton? Yes.
1202. And you carry 5 tons a week? About 5 tons a week.
1203. That is £10 a week? Yes.
1204. The butter does not amount to very much? No.
1205. Do eggs and poultry amount to much? I suppose they amount to about £20 a trip.
1206. You carry pigs? Yes.
1207. Any number? I cannot tell you the number.
1208. Is it considerable? For a small river it is.
1209. Can you give us any idea what an ordinary trip would average? I suppose that, taking the year right through, we might average 50 pigs a trip.
1210. How many trips a week do you make? I suppose that, taking the year right through, we do not average much more than one trip a week—that is allowing for detentions; fifty-two trips in the year.
1211. What do these detentions amount to? I could not say without going into the matter. They are pretty frequent at times.
1212. How is the Manning bar at present? It is bad.
1213. Taking the last twelve months, what has been the experience of your steamers;—has there been much delay? I may mention that we have a steamer trading now to the Manning which is admirably adapted for the purpose, and which I look upon as being the best shallow boat in Australia.
1214. What name? The "Coraki." We can carry 100 tons on 6 feet, and 200 tons on 7 feet. If we were to send a boat drawing 8 feet, I have no doubt that we should have a good many detentions. We fow both in and out.
1215. What does the "Coraki" usually bring down in amount;—how many tons dead weight in a trip? Going up, I suppose she would not take more than 30 to 40 tons. In a busy season coming down she would bring, I suppose, 150 tons; but in a slack season not more than 50 tons a trip.
1216. How many passengers? I suppose that we average twenty for the round trip.
1217. Ten up and ten back? Yes. I am giving figures for the year right through. Of course, at Christmas time or Easter time we are rushed with passengers for weeks.
1218. We are to regard your estimate as only an approximate one? Yes.
1219. It is a fairly correct one? Yes.
1220. Then, excepting the timber, you do the whole trade to the Manning with one boat? Yes.
1221. Does much corn come down in the sailing vessels? I do not think they bring any. They would have to drogher it, and they have no droghering plant. I may give you, for example, the quantity of maize brought by the "Coraki" on her last two trips—530 bags this trip, and 350 the previous one.
1222. Is your trade increasing? I think not, except as regards butter. The butter industry is the only industry that has made our trade increase a little. No butter came from there until perhaps two years ago.
1223. Do you trade to Camden Haven? No.
1224. To Port Macquarie? Yes.
1225. Can you give us the same information in regard to Port Macquarie as you have given in regard to the Manning? Yes.
1226. *Mr. Hassall.*] There is no steamer traffic at Camden Haven? I think not, but that all the trade is done by sailing vessels.
1227. *Chairman.*] You have nothing to do with Camden Haven? No.
1228. Does the one boat fairly well meet the trade of the Manning? Yes.
1229. Do you often require to improve the steam service? I do not think that last year we sent even what we call a coal boat in there—that is, we did all our own coal service, and the Government coal service, in addition to taking the ordinary outward cargo in the one boat.
1230. Can you say anything as to the delays of the boat? We were not delayed very much last year, because we had a better boat than we ever had before.
1231. How often is the "Coraki" delayed? I could not say without looking up the matter. We never have much to fear through being delayed twenty-four hours. It is the usual thing in bad weather.
1232. Has there been much loss in cargo consequent upon those delays? I think not. We feed and water the live stock.
1233. Are there any serious complaints in regard to the delays? No.
1234. And the maize comes down sufficiently rapidly to arrive in Sydney in fair condition? Yes. I do not think we have had half a dozen complaints from the Manning since we reduced the charge for maize to 1s. a bag.
1235. What is the freight upon pigs? We take the pig freight on the basis of what they realise here, so that if the market is bare we get a good freight, and if it is glutted we get a bad freight. The farmers seem to like that way of charging the best.
1236. Have cattle been shipped on board the "Coraki" and been taken off again, because she could not get out? They may have been on one or two occasions.
1237. Do many cattle come down? Not many; a few calves sometimes.
1238. But not many fats? No; I think they drove them overland.
1239. The pigs and calves get down in good condition? Yes.
1240. There are no serious local complaints in regard to them? No.
1241. What is the freight from Port Macquarie? 1s. 3d. a bag for maize. We base all our freights on the maize rate, as maize is two-thirds of our cargoes everywhere except on the Richmond.
1242. That is 12s. 6d. a ton? Yes; including droghering it right down the Hastings River. No maize—or very little maize—is shipped from Port Macquarie wharf. The 12s. 6d. a ton includes droghering it, also storing it in Sydney, and wharfage; in fact, all expenses are included in that charge.

1243. How much butter do you bring from Port Macquarie? Very little. They are establishing factories there now. R. Cooke...
 1244. Fowls, eggs, pigs? Not nearly so much as from the Manning. Port Macquarie trade is very small, in fact, we have to work it in with two other trades to make it a success. We work it with the Bellinger and the Nambucca trade. 3 Mar., 1898.
1245. What is the freight on pigs from Port Macquarie? It varies, according to the price realised here.
1246. Any timber from Port Macquarie? We do not bring any. The sailing vessels do the timber trade there. A lot of timber comes from there.
1247. Do you bring any cattle from Port Macquarie? No.
1248. What is the passenger fare to Port Macquarie? Five shillings more than to the Manning first-class, but steerage is the same, namely, 15s.
1249. What is the freight for ordinary goods? For ordinary goods, such as flour, salt, and sugar, 12s. 6d. a ton—the same as the Manning.
1250. Are the parcel rates the same as to the Manning? Yes.
1251. Which boat goes to Port Macquarie? The "Rosedale."
1252. Does she work the Bellinger and the Nambucca? Sometimes she cannot work the Nambucca; she always works the Bellinger.
1253. How many passengers would be a fair number to estimate for her ordinary trip from Port Macquarie? I suppose about fourteen for the round trip; taking the year right through, seven up and seven back.
1254. And what amount of goods to and from Port Macquarie? To give you an idea of the trade I may say that 20,000 bags of maize per annum go from Port Macquarie, on the average, and I suppose 15 tons of outward cargo per trip.
1255. Outward cargo being from Sydney to Port Macquarie? Yes.
1256. The next river would be the Macleay? Yes.
1257. What is your freight from Sydney to the Macleay? 12s. 6d. a ton outward, and 10½d. per bag for maize inward, including all drogherage, wharfage, and storage.
1258. Can we deduct from the 10½d. per bag, 3d. for drogherage? Yes.
1259. So that the railway would have to carry a bag of maize to Sydney from the Macleay for 7½d. to equal you? Yes; but I do not think that the railway would either load or discharge it at that rate, and we do both.
1260. The freight from the Macleay is less than from the other rivers—that is accounted for, I presume, because there is more trade on the Macleay? That is one of the reasons.
1261. *Mr. Lee.*] But is there not another reason governing the maize trade;—as a matter of fact, do not your company afford storage accommodation, and allow the corn sold to be removed from there? Yes. We give free accommodation so long as we are not overcrowded. I have seen maize on our wharf for a month.
1262. It enables them to take advantage of the market? Yes.
1263. *Chairman.*] What is the quantity of timber brought from the Macleay? I know nothing about the timber.
1264. What is the freight per 100 feet for any timber you may carry? In quoting a rate for timber, we should quote about 3s. a 100 feet.
1265. What quantity of goods goes outward to the Macleay? I suppose about 50 tons a weekly trip.
1266. Coming down, how much? It is governed by the seasons.
1267. Give us two statements—one for a busy season, and the other for a slack season? It is very hard to say. For months in the year, perhaps, we would have two steamers there, and during the other eight months we, perhaps, could not fill one. We never take much notice of the total quantity. It is the £ s. d. that generally concerns me.
1268. But it comes to the same thing? Yes; I suppose that, since the first of the present year, we have not averaged 50 tons a trip coming to Sydney; but from the 1st April, if we do not have any floods, I suppose that we shall get as much as we can safely carry over the bar.
- 1269-70. What will that be? I suppose that for about four months we may get about 4,000 bags a week, if we can carry it. We have to do a lot of the loading in Trial Bay. We drogher it over the bar.
1271. You are carrying maize at 10½d. a bag, including 3d. for drogherage? Yes; 7½d. a bag would be 6s. 3d. per ton.
1272. Is the trade of the Macleay growing? The dairy trade is growing, but that is the only one that is. However, although that represents a lot in money it represents very little in freight.
1273. Going further—farther north, what is the next place? We come to the Nambucca. The trade there is very small; it is something the same as at Port Macquarie.
1274. Twenty thousand bags of maize? I think there might be more sometimes; but taking the average for five years, I suppose that the two places would not differ very much.
1275. What freight? One shilling and sixpence; this is on account of the bad entrance.
1276. How many passengers go there? If we get five going out and five coming back, we think it a good trip.
1277. What outward freight? Twenty tons about every ten days.
1278. What inward freight? I suppose that if we get 500 bags, that is 50 tons of maize we would think that we had a good trip.
1279. Do you mean in a good season? No; in a good season in ten days we would get 100 tons.
1280. And in dull times 50 tons? At times we would not get 10 tons.
1281. Do any cattle come from there? No; eggs, poultry, and pigs.
1282. The next river we come to is the Bellinger? Yes; that is rather better than Port Macquarie and the Nambucca.
1283. The same cost? Yes. I may mention, to give you an idea of the trade, that a boat like the "Rosedale," which carries about 160 tons, does the whole of the trade of the three rivers.
1284. *Mr. Wright.*] And there is no difficulty about her doing the trade? There may be during a couple of months in the year, and then we put on what we call an ocean drogher, and drogher to Port Macquarie.

- R Cooke. 1285. *Chairman.*] So far as production is concerned, the Bellinger, Nambucca, and Port Macquarie are fairly equal? The Bellinger is the best.
- 3 Mar., 1898. 1286. And the other two are fairly equal? Yes.
1287. And we may take the figures that you have given as being a fair approximation to the figures for either of them, without our going through the items in connection with the Nambucca? Yes.
1288. The next is Coff's Harbour? We do not go there.
1289. Excepting the sailing boats, the North Coast Company does the whole of the trade of the North coast, until we reach as far north as Coff's Harbour? No. There is Cape Hawke and Camden Haven and Port Stephens. We do not touch there at all.
1290. Do other steamers go there? I think that a small steamer now goes to Cape Hawke. I do not know whether steamers or sailing vessels go to Camden Haven and Port Stephens.
1291. Is it worth your while to go to those places? I think not.
1292. The trade done is not sufficiently large to induce you to take them up? The risk is too great, on account of the shallower entrances, and the detention would be too long.
1293. Is there much trade coming out? I think not.
1294. Can you give us the same information in regard to the Clarence? The Clarence, of course, is undoubtedly the best trade on the North Coast.
1295. Do you do the whole steamer trade of the Clarence? No. The Sugar Company do their own work there.
1296. With the exception of the sugar, you do all the steamer trade? I think so. A small boat goes in occasionally, perhaps, with coal or something like that.
1297. Which of your boats goes to the Clarence? The "Kallatina" and the "City of Grafton," and also a freight boat in busy times.
1298. There is a steady trade? Yes. For the last few months we have had to carry coal in the "Kallatina" as ballast, but we shall be busy enough, I expect, in another month.
1299. The outward trade in a dull season is how much? The outward trade does not fluctuate, that is from Sydney to the Clarence.
1300. *Mr. Wright.*] Potatoes are a big item on the Clarence? Yes, for about two months in the year; but sometimes the crop is a failure. We do not look upon it as much.
1301. *Chairman.*] You do not go to the Tweed? No.
1302. What is the book value of your plant? The book value is £80,000.
1303. Does that include steamers? Steamers and droghers.
1304. And wharf property? No.
1305. Just simply your vessels for carrying? Yes.
1306. *Mr. Roberts.*] Have you any record in the office as to the number of times, and for what period the boats when loading with produce for Sydney have been detained at the Manning Heads, owing to the shallow water on the bar? We could, by examining the captains' reports for six or twelve months, get at it; but we do not keep any record of it. We file each report as it comes in, and that states the length of time that the steamer has been detained in the river. The detentions during the last twelve months have been very few.
1307. I want to go back, say, a period of five years? They would be frequent at that time, but we have a better class of boat there now.
1308. Does the "Coraki" draw less water than the "Rosedale"? About the same—slightly less, I think.
1309. How does she compare with the "Electra"? The "Electra" draws about 1 foot more.
1310. Was not the "Murray" lost at the mouth of the Manning? Yes; several boats have been lost there—the "Murray" and the "Brunswick"—and we had the "Electra" stranded there, and the "Rosedale" has been stranded there several times. I can speak only of the period since 1891. We have had the "Electra" stranded there twice, and the "Rosedale" either two or three times.
1311. The "Murray" was lost there? Yes; and I believe that the "Brunswick" was also lost there.
1312. Where was the "Fernmount" lost? The "Fernmount" is running yet. The "Wellington" was lost at the Nambucca, and the "Ballina" at Port Macquarie.
1313. But the Manning has been regarded as a very dangerous entrance for some years past? Yes; until we got a better class of boats—at least, boats more adapted to it.
1314. You regard the "Coraki" as being the best boat you have had there yet? Not the fastest, but the best for the settlers and for the company.
1315. For negotiating the entrance? Yes.
1316. *Mr. Hoskins.*] I gather from your replies to Mr. Roberts that the difficulties in entering the Manning River at the bar are much less now than they used to be, are they not? Yes; but it is in this way: we are better able to cope with the difficulties. I do not think there is any more water there now than there was many years ago.
1317. Does that arise from the improvements made by the Harbours and Rivers Department, or by your having a class of steamers better adapted for the trade? The class of steamers. The improvements that have been carried out so far have not had any tendency to better the entrance, but they may later on. Whether they will as the breakwater goes further out, I do not know.
1318. I suppose you are aware that they are working now on the entrance to the Manning? Yes.
1319. Then the loss of steamers and the grounding of steamers have risen principally, you think, owing to the fact of the company not having steamers adapted to their work? Well, partly so.
1320. *Chairman.*] Supposing that the Macleay, the Manning, the Nambucca, and the Bellinger be furnished with suitable entrances, are you prepared to state that the freights will be reduced? We may reduce them on the Nambucca and the Bellinger—those two small rivers, but as to the freights from rivers like the Clarence, the Macleay, or the Manning, we consider that we could not possibly carry at a lower rate than now. The volume of trade governs us in a great degree in charging freights.
1321. If a suitable entrance be furnished to the Macleay, will you be able to carry more cheaply from the Macleay than you do now? No.
1322. You do not think so? Yes.
1323. There is not a sufficient volume of trade to justify it? No. We consider that we are down at bed-rock price now, because maize is the principal product, and we always take it as low as we possibly can.

The lowest rates we have are the Macleay River (10½d.), and the Clarence River (11d.), and we know that we cannot go lower than that.

R. Cooke.

3 Mar., 1898.

1324. And the Clarence River has an excellent entrance? Yes.

1325. *Mr. Wright.*] Supposing that you had active competition, do you not think that you would reduce prices? You might reduce prices, but it does not follow that it would pay. I was referring to maize freight just now, and, as I have said, two-thirds of the freight is maize freight.

Walter Alexander Smith, District Engineer, Roads Branch, Department of Public Works, sworn, and examined:—

1326. *Mr. Black.*] Have you prepared a statement in regard to this route? Yes; it is as follows:—

W. A. Smith.

3 Mar., 1898.

EXPENDITURE on Schedule Roads affecting construction of proposed Railway, West Maitland to Taree.

Item.	Name.	Years	Total Expenditure			Average Annual Expenditure		
			£	s.	d.	£	s.	d.
1897-8.								
731	West Maitland, <i>via</i> Dunmore, to Paterson	18	7,372	0	0	455	0	0
742	Clarence Town to Dungog	11	21,379	0	0	1,018	0	0
743	„ <i>via</i> Glen William, to Brookfield	1	180	0	0	180	0	0
745	Dunmore to Clarence Town	11	8,637	0	0	785	0	0
749	Gresford to Eccleston	1	227	0	0	227	0	0
751	„ Lostock	1	280	0	0	280	0	0
752	Gostwycke to Newport	16	7,502	0	0	469	0	0
754	Hinton to Mt Kanway	12	1,713	0	0	156	0	0
755	Hillsborough, <i>via</i> Rosebrook, towards Maitland	11	2,604	0	0	237	0	0
757	Lostock to Carraboler	1	100	0	0	100	0	0
760	Largs, <i>via</i> Tocal, to Paterson Bridge	1	183	0	0	183	0	0
763	Morpeth, <i>via</i> Hinton, to Stewart's Corner	7	812	0	0	116	0	0
764	„ to Largs	1	30	0	0	30	0	0
765	„ Punt, through Phoenix Park, to Largs	1	54	0	0	54	0	0
769	Penshurst to Alleyn River	1	80	0	0	80	0	0
770	Pitnacree Bridge to Dunmore House	3	261	0	0	87	0	0
771	Paterson to Gresford	1	481	0	0	481	0	0
773	Phoenix Park to M'Clymont's Swamp	3	90	0	0	30	0	0
779	Raymond Terrace, <i>via</i> Nelson's Plains, to Seaham	1	65	0	0	65	0	0
782	Seaham Road to Dunne's Creek	1	40	0	0	40	0	0
785	Tocal, up Webber's Creek	1	40	0	0	40	0	0
787	Vacy to Summer Hill	1	67	0	0	67	0	0
788	Wallarobba to German Bridge and Branch to Brookfield	1	120	0	0	120	0	0
789	„ Road to Cox's Creek	1	27	0	0	27	0	0
984	Caswell's Road	7	328	0	0	47	0	0
990	Seaham Punt to Clarencetown	1	86	0	0	86	0	0
1,199	Stroud to Dungog	12	7,333	0	0	611	0	0
1,200	Booral to Bulladelah	12	11,091	0	0	924	0	0
1,201	Bulladelah to Bungwall	10	9,863	0	0	986	0	0
1,202	„ Cooalongoolook	3	1,841	0	0	614	0	0
1,203	„ Larry's Flat	6	3,024	0	0	504	0	0
1,204	„ down the Myall River	7	481	0	0	70	0	0
1,205	Bendolba to Upper Wangat	12	5,227	0	0	435	0	0
1,206	Barrington to Little Manning River	1	89	0	0	89	0	0
1,207	„ Cobark Road	6	306	0	0	51	0	0
1,208	Booral to Karuah River	2½	75	0	0	30	0	0
1,209	Bungwall to Foster	1	167	0	0	167	0	0
1,210	Clarence Town to Thalaba	1	163	0	0	163	0	0
1,211	„ Limeburners Creek	14	3,960	0	0	233	0	0
1,212	Dungog to Underbank	16	7,263	0	0	454	0	0
1,213	„ Posterton	11	2,753	0	0	250	0	0
1,214	„ Thalaba	1	86	0	0	86	0	0
1,215	„ Weismantel's	15	18,320	0	0	1,222	0	0
1,216	Flyer's Creek to Dorney's	14	3,927	0	0	280	0	0
1,217	Gloucester to Copeland	18	5,540	0	0	307	0	0
1,218	„ Cobark	13	3,335	0	0	256	0	0
1,219	Junction of Barnard and Little Manning Rivers to Nowendoc	1	93	0	0	93	0	0
1,220	Limeburners' Creek to Krambach (North Coast Road)	4	6,883	0	0	1,720	0	0
1,221	Limestone Hill to Newell's Crossing	3	427	0	0	142	0	0
1,222	Old Inn to Booral Road	9	1,755	0	0	195	0	0
1,223	Ridgeway's, <i>via</i> Monkerai, to Karuah River	3	503	0	0	170	0	0
1,224	Stroud Road to New Wharf	7	436	0	0	62	0	0
1,225	Telegerry to Masters	3	138	0	0	40	0	0
1,226	Underbank to Upper Chichester	1	108	0	0	108	0	0
1,227	„ Williams	5	355	0	0	71	0	0
1,253	Taree towards Tuncurry (North Foster)	5	3,693	0	0	738	0	0
1,254	„ to Wingham	6	1,173	0	0	195	0	0
1,255	„ Ferry to Glenthorne Wharf	1	18	0	0	18	0	0
1,256	Ashlea to Upper Dingo Creek	6	1,250	0	0	208	0	0
1,257	Bullock Wharf to Cooalongoolook	4	854	0	0	213	0	0
1,258	Burril Creek to Kimbuki	8	1,111	0	0	139	0	0
1,259	Cameron's Crossing to Moril Creek	7	200	0	0	29	0	0
1,260	Cedar Party Creek Road up Killabakh Creek	9	939	0	0	101	0	0
1,262	„ Road to Taree and Wingham Road	7	897	0	0	128	0	0
1,263	Chatham to Taree and Wingham Road	7	210	0	0	30	0	0
1,264	Cooperbrook to Harrington	14	1,989	0	0	142	0	0
1,265	Croki Punt to Mann Road	3	82	0	0	27	0	0
1,266	Cundle, <i>via</i> Saville's, to Cooperbrook	3	558	0	0	186	0	0
1,267	Holey Flat to Upper Stewart's River	9	1,323	0	0	147	0	0
1,268	Jericho over Big Swamp	7	1,041	0	0	149	0	0
1,269	John's River Wharf to Stewart's River Road	7	1,298	0	0	185	0	0
1,270	Krambach to Kew (North Coast Road)	5	7,413	0	0	1,582	0	0
1,271	„ Tuncurry (North Forster)	3	1,286	0	0	429	0	0
1,272	Marlee Road to Gillogly's	6	88	0	0	14	0	0
1,273	Nowendoc Road to Dolly's Flat	1	14	0	0	14	0	0

W. A. Smith.
3 Mar., 1898.

Item.	Name.	Year.	Total Expenditure.	Average Annual Expenditure.
1897-S.			£ s. d.	£ s. d.
1,274	Nowendoc Road to Upper Manning	1	70 0 0	70 0 0
1,275	Old Bar Road to Redbank Ferry	1	20 0 0	20 0 0
1,276	Roads through Dumaresq Island	7	483 0 0	70 0 0
1,278	" Oxley Island	11	3,544 0 0	322 0 0
1,279	" Paterson's	3	269 0 0	89 0 0
1,277	" Mitchell's Island	11	2,061 0 0	187 0 0
1,280	" Warren's Lane (Cemetery Road)	3	90 0 0	30 0 0
1,281	Sussman's to Possum Brush	7	763 0 0	109 0 0
1,282	Tinonee Road to Bootawah	3	178 0 0	59 0 0
1,283	" Failford Road	4	608 0 0	152 0 0
1,284	" Killawarra	6	403 0 0	70 0 0
1,285	" Old Bar Reserve	3	129 0 0	43 0 0
1,286	" Wingham Ferry	12	2,982 0 0	248 0 0
1,287	Upper Lansdowne Roads	1	365 0 0	365 0 0
1,288	Wingham and Nowendoc Road to Karaak Flat	4	708 0 0	177 0 0
1,289	" to Nowendoc	15	17,511 0 0	1,167 0 0
1,290	" up Cedar Party Creek	16	2,711 0 0	170 0 0
1,291	" via Ashlea, to Kelvin Grove	22	3,741 0 0	165 0 0
1,292	" Brimbin, to Lansdowne	13	778 0 0	60 0 0
1,293	" Bungay, to Bo Bo Creek	3	86 0 0	29 0 0
1,294	Woolla Woolla Roads	3	113 0 0	37 0 0
	Total		211,350 0 0	24,106 0 0

1327. Is there any reason to suppose that that amount would be lessened if a railway were constructed from Maitland to Taree? I am well acquainted with the country from Maitland to Dungog; but I do not know the country between Dungog and the Manning.

1328. Have you any reason to believe that if the railway were constructed the amount now spent on the maintenance of roads would be lessened? I can answer that question only so far as the country between Maitland and Dungog is concerned. I do not know the country beyond that. As regards that country, I think that the road expenditure would be slightly lessened; but not to any great extent.

1329. Has your experience shown you that the construction of railways in any part of the country lessens the road expenditure? It lessens it on the main roads; but it increases it on all the feeders of the railway.

1330. Therefore, the general expenditure is not lessened? It is usually increased by reason of increased settlement.

1331. Have you anything to say about the roads as far as Dungog? Usually they are very fair roads.

1332. Well kept? Yes.

1333. So far as you know, are the settlers exposed to any great disadvantages in the matter of road communication? No; they are very well served.

1334. *Mr. Hoskins.*] Is not the experience of the Roads Department that after railways have been constructed, although there is a diminution of expenditure, or perhaps an absolute stoppage of expenditure on some roads, there is an increased demand for other roads which act as feeders to the railway? Yes.

1335. Therefore, the road expenditure practically is not absolutely diminished? No, it is not.

1336. *Mr. Lee.*] It is only in the case of the Great Northern Road, and other roads of a similar character, where the votes have been reduced in consequence of the railways running parallel to them? The expenditure is reduced in the case of all main trunk-roads, whether on the main-road schedule or not, if they run parallel with the railway.

1337. You know the Hornsby and Dural and adjoining railway district? Yes.

1338. Has not the road expenditure increased materially since the Great Northern Railway was made on the roads coming from the Dural country in towards the main line? Yes.

1339. As a matter of fact, that railway has increased the road expenditure considerably? Yes.

1340. And is that not the fact in the country generally? Yes.

1341. The long list of roads that you have read to us as being possibly affected by a railway constructed from Maitland to Taree would, in many cases, have to be maintained even if the railway were made? They certainly would.

1342. And in all probability many side roads as well? Yes.

1343. Has your experience in the Roads Department been such as to lead you to believe that, as a general rule, railway extension has not reduced the road expenditure? It has not reduced the road expenditure, except on the main trunk roads.

George Charles Yeo, Draftsman, Stock Branch, Department of Mines, sworn, and examined:—

G. C. Yeo. 1344. *Mr. Hoskins.*] Have you brought with you a statement showing the number of stock in the district that would be served by the proposed railway? Yes; I have a return showing the number of horses, cattle, sheep, and pigs within the area likely to be affected by a railway from Maitland to Lismore.

1345. Will you state the estimated number? I have returns for three years as follows:—1895—horses, 49,516; cattle, 331,163; sheep, 4,784. 1896—horses, 49,727; cattle, 350,834; sheep, 4,840. 1897—horses, 51,845; cattle, 346,739; sheep, 5,608; pigs, 49,065.

1346. I suppose you have not a list of the owners of this stock? We could produce a list of the owners, but there is a lot of them.

1347. Can you tell the Committee of your own knowledge the number of stock owned by the A. A. Company, who have a large tract of country between Maitland and Taree? I could find out, but I cannot tell you now. I could get the return for the present year of the stock they have on their tract of country near Gloucester.

1348. Have you any further statement to make? I have here a statement of the number of cattle that came from Queensland into the North Coast district. It is as follows:—1896—Tullabudgera Crossing—horses,

horses, 29; cattle, 1,312; sheep, 129. Mt. Lindsay and White's Swamp—horses, 1,184; cattle, 7,496. 1897—Tullabudgera Crossing—horses, 81; cattle, 2,312; sheep, 1,309. Mt. Lindsay and White's Swamp—horses, 220; cattle, 10,887; sheep, 388. The total number of cattle treated at the Ramornie Meat-works, from February, 1897, to August, 1897, was 15,277; there were no sheep. For the year ended 31st December, 1897, the number of horses, cattle, sheep, and pigs in the district from the Paterson, near Maitland, to Taree was as follows:—Horses, 6,765; cattle, 35,361; sheep, 1,473; pigs, 10,048.

1349. *Mr. Lee.*] Could you furnish us with information showing the number of driftways that you have to maintain, their routes, what proportion of stock passes over them, and the places to which they go? Yes, I could.

1350. *Chairman.*] The numbers that you have furnished to the Committee as regards the district between Maitland and Taree would be for an area of country bounded on the east by the seaboard; on the north by the Manning River; on the west by a line approximately midway between the black and red lines on the map, and going in a general southerly direction to West Maitland? Yes. It would actually be the watershed coming down there. The next area which I propose to give the Committee particulars of is one bounded on the east by the coast-line to Coff's Harbour; thence going west to pretty well halfway towards the main Northern Line; and thence going south, preserving a distance midway between the dotted red line and the black line to the Manning River; and thence from the Manning River to the coast. For that district the return for the year ended 31st December, 1897, is as follows:—Horses, 9,561; cattle, 52,150; sheep, 708; pigs, 11,708. I now propose to give the number of stock within the area bounded on the south by the northern boundary of the line going west of Coff's Harbour; on the east by the coast-line to the Queensland Border; and thence westerly by the boundary between the two colonies to a point fairly well midway between the two railway systems; and thence going down approximately halfway between the proposed coast-line and the Main Northern Line. The return for the year ending 31st December, 1897, is as follows:—Horses, 35,419; cattle, 279,228; sheep, 3,421; pigs, 27,309.

G. C. Yeo.
3 Mar., 1898.

FRIDAY, 4 MARCH, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN.)

The Hon. FREDERICK THOMAS HUMPHERY.

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

The Hon. DANIEL O'CONNOR.

CHARLES ALFRED LEE, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Justin McSweeney, contractor and timber merchant, sworn, and examined:—

1351. *Chairman.*] You are engaged in the timber trade on the north coast? Yes.

1352. *Mr. O'Connor.*] You carry on a large business as a contractor? Yes.

1353. You get some of your supplies from the north coast? Yes.

1354. What do you principally get? Various kinds of timber grown on the Manning and the Camden Haven rivers.

1355. With which ports do you trade? Camden Haven, and the Manning and Port Stephens.

1356. Do you bring the timber by steamer or sailing vessels? Chiefly by sailing vessels, but in some cases by steamer.

1357. Do you charter the vessels? No; I own the vessels myself.

1358. What do you think would be a fair thing to charge for timber freight? The freight from the Manning is 2s. 6d. per 100 superficial feet; Port Stephens, 1s. 9d.; and Camden Haven, I think, 2s. 9d.

1359. Do you know anything about the proposed line of railway? Not very much. I have seen parts of the route marked off. I think that the railway would open up some good country along parts of the route that I have seen.

1360. Will you tell the Committee whether, with your experience, you think the railway would be able to successfully compete with the water carriage? Unless you could carry on the railway for something approaching the same prices as the boats charge, I am afraid that the boats would take the trade; but if it could be done at anything like the same price as the water carriage, I think that a preference would be given to the railway on account of more certainty in getting down punctually. But I do not think that the people up there would pay an extraordinary difference if there were an extraordinary difference between the two prices.

1361. You yourself know these places well? Yes.

1362. Are there facilities for entering always? Not in rough weather, when the vessels cannot go over the bars. About a month ago I was stuck at the Manning, and had to go overland by coach. We had no certainty as to being able to get out for some days. After waiting for some time we found that it was uncertain when the steamer would be able to cross the bar, and so a party of us had to go by coach.

1363. So, practically, you have to allow that a certain proportion of the people would pay more to the railway on account of certainty of delivery of goods rather than send them by steamer? No doubt that would be so, and passengers would go in preference by the railway. I think that the passenger traffic would increase. I myself would go there very much oftener if there were railway facilities.

1364. Can you tell the Committee anything with regard to the character of the country along the route of the proposed railway? I have seen some very good country in different places along the whole route. With railway facilities I think that some very good country would be opened up and a larger population settled there on account of the better facilities for travelling.

1365. Is it pastoral or agricultural country? A good deal of it is rich agricultural land, and the other parts are pastoral country.

J.
McSweeney.
4 Mar., 1898.

- J. McSweeney.
4 Mar., 1898.
1366. Is it utilised now to any great extent? No, they do not seem to work it well at all just now.
1367. I suppose that that is principally owing to the fact that their market is uncertain? I dare say that has something to do with it.
1368. The country itself is good? Yes; a lot of the country is very good.
1369. What portion of the country do you especially allude to? The country around Cooperbrook and Taree. That is exceptionally good country, and there is some good land up Camden Haven way, and some very good land about Port Stephens.
1370. Have you any personal knowledge as to the distance between those various places—for example, what is the distance between Taree and Cooperbrook? About 14 miles, I think.
1371. How is communication carried on between those two places generally now? By coach and private vehicles.
1372. Are the roads up there pretty fair? They are very good roads.
1373. What is the character of the land about Cooperbrook and Taree? It is exceptionally good agricultural land.
1374. What are the principal corn-growing districts up there? I have seen corn growing in all the districts.
1375. Is it likely that the timber trade will hold out there for some years? Yes; there is no doubt about that.
1376. In your opinion, what length of time will it last? The timber trade in those districts will last from thirty to forty years at the very least.
1377. Notwithstanding how heavy the demand may be? Yes; there is a vast quantity of timber up there.
1378. It will last a very considerable time? Yes.
1379. What time would it generally take one of your steamers to go to there from Sydney? About two days to the Manning from the time she left Sydney.
1380. Which is the best of those three bars? I think that the Manning is the best bar along the coast. Port Stephens is only an inside bar; it is not a bar exposed to the ocean wash; but the other bars are exposed to the ocean wash.
1381. What is the highest tonnage ship that can go there under fair circumstances? I have sent a boat to the Manning carrying 280 tons.
1382. What about Camden Haven? That would be similar. Sometimes the bar there is very bad, with only 5 feet of water over it.
1383. Is the beach a sandy one? Yes; and at times the entrance gets choked up very badly.
1384. That makes the means of communication rather uncertain? Yes.
1385. And if fair facilities were offered, the railway must take a lot of the trade? I think that the trade would very largely increase if there were a railway, and people knew that there was a certainty of getting backwards and forwards.
1386. There is fine pastoral and agricultural land there, which you are strongly of opinion might be occupied immediately after the construction of the railway? Yes.
1387. *Chairmen.*] How much timber per annum, in your opinion, comes out of the three places you have mentioned—Camden Haven, the Manning, and Port Stephens? I suppose that there are 150,000 superficial feet a week coming down now from Camden Haven; about 60,000 superficial feet from the Manning—but it is quite likely that that will be increased—and about 60,000 superficial feet also a week from Port Stephens.
1388. Is it all hardwood? Yes.
1389. *Mr. Hoskins.*] Is it exported at all? Some of it is brought down for export, but only very little of it, and the rest is sold in the Colony. All that I am bringing down now is for local requirements.
1390. *Mr. Lee.*] On the average, about what number of feet would go to a ton? About 330.
1391. So that practically you would pay 7s. 6d. a ton for the carriage of sawn stuff from the Manning? Yes.
1392. If the railway rates were double that, could you afford to pay them? I do not think so.
1393. What increase on those rates could you afford to pay for carriage by rail? There might be an increase of 10 per cent., but if it went over that, I think it is very doubtful whether the railway would get the trade.
1394. *Mr. Trickett.*] Are there many timber yards on the river? Yes; there are a good many.
1395. Are they steam-cutting yards or not? All steam.
1396. I suppose you could not tell us the total quantity of timber that is brought down from those rivers? In regard to the three rivers, I have given the quantity as near as I can, and I think that about 120,000 superficial feet are brought from Port Macquarie each week.
1397. With regard to the timber trade, which do you look upon as the best means of transit—by vessel or by train? Of course, the only means of transit now is by vessel; but if a train were running, and if the cost by rail and by vessel were anything like equal, I think that the train would be preferred on account of the certainty of getting the timber down.
1398. Is there a large demand for the timber that is supplied from those districts? Yes; there is a good local demand.
1399. Do you think that the demand for Colonial timbers is increasing? Yes; it is increasing. Of course the price is not particularly high, but the demand latterly seems to be increasing.
1400. Is Colonial pine, for instance, increasing in demand? I do not think that that is increasing. I think it is about holding its own. There is always a fair demand for it.
1401. Supposing that this timber trade were to have greater facilities given to it in the way of the timber being brought to Sydney by train, and more were sent down, would there be the extra demand for the timber that would be necessary to meet the supply? I suppose that places would be always growing, and very likely they would want increased quantities each year. That would be a matter, to some extent, of speculation.
1402. For the purpose of house building, and so on, is not New Zealand timber and Oregon and other imported timbers mostly used? They are very generally used—the Oregon particularly.
1403. What is really the scope of employment for the Colonial timber that comes from those northern rivers?

- rivers? We are using it largely just now for the wood-blocking of George and Harris streets in connection with the new tramway. The rest is used for bridge-building and general house purposes.
1404. In what way? For the joists of houses hardwood is used. The roof is generally of Oregon, but the lower timber is generally all hardwood.
1405. The big timbers used are generally Colonial, but flooring, lining, and that kind of thing is generally done with imported timbers? Yes; of course, a good deal of hardwood flooring is also used.
1406. With regard to the timber trade,—is it better to saw the timber locally, or to bring it down in logs to be sawn in Sydney? It is far better to saw it up there, and to bring it down in planks. There is a good deal of waste in cutting up timber, and if you were to bring down the logs you would have to pay freight on a lot of timber which you would not be able to get anything out of.
1407. *Mr. O'Connor.*] Have you your own mills up there? Yes.
1408. *Mr. Hoskins.*] Have you seen the route on the map of this proposed railway from Maitland to Taree? I have seen it on the ground, where it crosses at Port Stephens, near Bulladelah, and I have also seen it up at Camden Haven.
1409. Are you aware that the proposed railway from Maitland to Taree will not go near any of those ports of which you have spoken—either Camden Haven, Port Stephens, or Port Macquarie—but 10, 20, or 30 miles away? Well, the mills are a long way back from the heads; they are 10 or 12 miles up the rivers, and the timber is punted down the rivers to the ports.
1410. But if the timber had to be hauled from the mills to the railway 10, 12, or 20 miles, would not that so increase the cost of production that it would make it still more prohibitive to send timber by railway? Yes; if you had to cart it 10 or 15 miles that would add very much to the cost.
1411. And that would tend to give a preference to sending it by sea? Yes.
1412. For after all said and done, it is not very expensive rafting timber down the river? No; it is much cheaper than sending it by land.

Henry Chamberlaine Russell, C.M.G., Government Astronomer, sworn, and examined:—

1413. *Chairman.*] What is the rainfall in the Maitland district? West Maitland, 46·08; Singleton, 31·68; Peshurst, 48·73; Dungog, 50·94; Stroud, 58·90; Moorland, 68·10; Taree, 50·33; Manning River Heads, 62·90.
1414. 68·10 is a very heavy rainfall? Yes; the rainfall is very heavy at Moorland. I do not know the place. The rain-gauge there is a private one, but judging by the contour of the rivers it must be on a hill.
1415. Then the rainfall from West Maitland to Taree approximately along the line of railway proposed to be constructed is between 50 and 60 inches on a fair average? Yes.
1416. How far back is the table-land? From Taree to Murrurundi is due west, and the distance is about 180 or 190 miles. But immediately north of Murrurundi the main range bends away to the east a good deal, and the distance between the coast and the highlands becomes less.
1417. The Manning River raises a little north of Murrurundi? Yes; it rises just opposite Nundle.
1418. Can you give us one or two rainfalls on the table-land at the source of the Manning? Nowendoc, 48·40. Stewart's Brook is on the other side of the main range to the Manning, and about the same distance from the coast, and the rainfall at Stewart's Brook is 38·19. But I should say, in reference to that, that the Stewart's Brook record extends only over five years, three of which have been dry years.
1419. Would we be justified in regarding the rainfall on the table-land at the source of the Manning as being something over 40 inches? Certainly.
1420. That is on the table-land immediately west from the Manning? Yes.
1421. Would you say 45 inches? Yes, I think so. The observer at Nowendoc is a very careful one, and he makes the rainfall there 48·40 for twelve years, and those twelve years take in a fair percentage of good and bad years.
1422. Will you now take from Taree to Kempsey, and give us one or two rainfalls due west of Kempsey—that is, taking the head of the Manning? I cannot find an observer due west there.
1423. Well, approximately? I have a record taken about 40 miles west from the coast, but not near the mountains at all, viz.:—Wauchope, which is at the head of the Hastings branch, 60·57; then there are Port Macquarie, 63·71; Kempsey, 52·19; Camden Haven, 62·31. The record at Port Macquarie is worth more than the others, because it extends over thirty-four years. Then there is Rolland's Plains, which, judging from the map, is about 25 miles due west from the town of Kempsey. The rainfall at Rolland's Plains is 61·81; the rainfall at Trial Bay is 70·80. Then there is a place west of that about 20 miles called Bowraville, where the rainfall is 59·44. You will observe that there is a great diversity in the records just about here on the coast and the neighbourhood of Port Macquarie. I do not know the country personally, but, judging from the best maps, there seems to be a considerable spur of the mountains that comes down just to the north of Port Macquarie. That is the only explanation that I could ever get that seemed at all satisfactory of the great quantity of rain at Port Macquarie. The same thing happens on the north coast further up—on the Tweed River. The Tweed River has the heaviest rainfall in the Colony, and it is near a very high range. The range comes out to the coast there, and I think that the same explanation must be accepted as the cause of the heavy rainfall at Port Macquarie. If the mountain be there—and I have only the map to go by—that is a good explanation. I do not know the Apsley River and the Apsley Falls. I cannot find anybody to observe there. I have no record west of Rolland's Plains just there, but a little farther north, opposite Armidale, there is a place called Bellbrook, about 20 miles from Armidale east, and the record there is 53·79.
1424. What is the record at Kentucky, Uralla, and Armidale;—the water from just east of those places, or some of it, will find its way to the plain? Yes; the drainage from Armidale, I believe, goes into the eastern waters, but I am not quite sure. The rainfall at Armidale, taking a thirty-one years' mean, is 33·01.
1425. And at Kentucky and Uralla about the same? Yes.
1426. At the source of the Macleay 31 inches, and at its outlet 70? Yes.
1427. Will you now take from Kempsey to Grafton? At a place called Fernmount, on the Bellinger River, there is a record of 80·57, which I cannot explain. At Guy Fawkes, which is about 30 miles west-north-west of Fernmount, the record is 68·90. That is in a line between Woolgoolga and Armidale, just about half-way between the two. Woolgoolga has a record of 72·30.

- H. C. Russell, C.M.G.
4 Mar., 1898.
1428. Can you give us the rainfall of the Nambucca? No, I am afraid I cannot. There is a big strip of country south of Grafton—all over the southern branch of the Clarence River—where I cannot find anybody to observe. For instance, there is no observer at Nymboйда.
1429. They are not much interested in records perhaps, when they have a rainfall of 60 or 80 inches? My experience is that farmers are not such good observers as squatters are. They do not take the same interest in the matter. At the mouth of the Clarence there is a rainfall of 57·46.
1430. Can you give us Coff's Harbour? No; there is nothing between Woolgoolga on the coast and Clarence River. Grafton, inland a bit, comes part way between the two, but that is some distance from the coast. The rainfall at Grafton is 39·80. On the high lands, taking the western branch of the Clarence River, at Ramornie, the rainfall is 49·72.
1431. And on the table-land at the source of the river? That is within 10 or 12 miles of the main ridge. At Copmanhurst the rainfall is 54·45. That is, of course, close to Gordon.
1432. And then right west beyond the farthest source? Deepwater, 37·58. Then there is a place, the name of which is not legible on the map, just a little east of Deepwater. It is on one of the upper branches of the Clarence River, and it has a rainfall of 42·37. That is quite close to the top of the mountain, west of Copmanhurst. Then, going north from the Clarence River Heads, Cowper is the next place. Cowper, which is close to the coast, has a rainfall of 49·23. Cumbalum, just at the entrance to the Richmond River, is 79·09; Lismore is 59·16; and Casino, 46·11. Tabulam, where the effect of the high lands is again begun to be felt, has a rainfall of 49·05; Tenterfield, 34·74. A place called Drake, which is just midway between Tenterfield and Tabulam, has 54·45. The Tweed entrance has 74·39, and Murwillumbah 87·99.
1433. Over how long a period does the Murwillumbah record extend? Six years. It gets the effect of the high ranges there, one of the biggest of which is said to rise 5,000 feet.
1434. The rainfall seems enormous? Well, there is Condong, a place close to the mountain, ten years' record, which has a rainfall of 90·14.
1435. *Mr. Lee.*] What is Cape Byron? I have not Cape Byron; but the records on the Tweed are some thing very startling.
1436. They seem to get the heavy rains that come along the north coast? You may say it has been raining there for the last two months, and heavy rain very often. On the northern coast of Queensland, of course, it is much heavier than that. Thinking that it might be interesting to the Committee, I have brought a record of the heaviest rainfall in any month in the records of those places that I have been mentioning. Some of them are considerable. Guy Fawkes has a record of 36·77 for one month. That was in the great flood-time of 1890. In the big flood-time in March, 1890, Lismore had 31·47 in one month. Casino had 27·82 in one month; Lawrence had 24·38.
1437. The highest is 37 inches? No; there is one which is more than 42 inches—namely, Murwillumbah, 42·78, in 1893.
1438. What is the record for a month at Moorland? 40·23.
1439. Can you give us Wingham or Taree? Taree, 30·24 in one month. That was in 1895. Drake, a little farther north, had 35·35 in one month in 1893. Thinking that it might be interesting, I have brought a record of the rainfall that caused the recent flood in the Hunter. The river got up suddenly at Maitland to 30 feet. The highest recorded flood is 36 ft. 6 in. That is the highest flood at West Maitland. On the 13th, 14th, and 15th comparatively heavy rains fell on the Hunter, and the heaviest fall there in the three days was 6·98, and the fall ranged from that, down to under 3 inches. Dungog had 2·58; Clarence Town, 3·32; Hunter's Vale, 3·83; Wingen, 5·98; Jerry's Plains, 4·65; Dartmouth, 4·54; Dalwood (Black Creek), 5·32; Cassilis, 4·95; Buchanan, 4·58; Aberdeen, 4·56. A rainfall giving about 4½ inches in three days brought the river up suddenly at Maitland 30 feet above its ordinary level. I remember reading the report of the first Royal Commission on the Hunter River floods. They came to the conclusion that an inch of rain per day over the catchment area of the Hunter would keep it level with the tops of the banks. Once the rain had wetted the whole surface 1 inch of rainfall would keep the river in high flood.

Henry Deane, Engineer-in-Chief, Railway Construction Branch, Department of Public Works, sworn,
and further examined:—

- H. Deane.
4 Mar., 1898.
1440. *Mr. Humphery.*] You have brought some information, I think, to complete your evidence, have you not? I was asked to produce a statement as to the surveys. This I have. It is as follows:—

As a result of advocacy of the North Coast railway by both the public Press and deputations to the Hon. the Minister for Works, explorations of the country lying between West Maitland and Morpeth, on the Great Northern line, and South Grafton were authorised by him in 1882.

In October of the same year, Mr. Mansfield was deputed to do this exploration. Between the Great Northern railway and Taree two main routes were examined, namely, from West Maitland and Morpeth, as well as an alternative line to the first portion of the latter from Hexham; and a connecting line, *via* the valley of the Karuah River, joining these main routes.

One main route, after leaving West Maitland, passed through the towns of Paterson, Dungog, and Gloucester, down the valley of Mograni Creek, and proceeded to where the line crosses the Manning River, about 2½ miles south-west of Wingham; thence through that town to Taree, and onwards to South Grafton.

The other main route, after crossing the Hunter River, at Morpeth, passed through Seaham, Clarence Town, and Bulladelah, to a junction with the route from West Maitland, about 14 miles south from its crossing of the Manning River, above Wingham.

As a result of these explorations, trial surveys with ruling gradients of 1 in 40 were made of all these routes with the exception of the alternative line from Hexham, of which no survey has been made. That between West Maitland and Taree was commenced in January, 1884, and completed in February, 1886.

No separate estimate of the original line to Taree has been made; but in 1886 an estimate of the cost of the whole line to South Grafton was made, which gave an average of £14,917 14s. per mile for the whole of the North Coast line to South Grafton, the total length being 305 miles 60 chains.

With a view to reducing the excessive cost, and of improving the whole of the North Coast lines, Mr. T. R. Firth was instructed, in 1889, to examine the surveyed routes, and make explorations to further these objects. Great improvements were suggested by him, the principal between West Maitland and Taree being two extensive deviations. The first, 18 miles in length, commences about 35 miles out from the former town, crossing the Monkerai Range, about 3 miles further south than the previous survey; and then passing down the valley of Sheep-station Creek (or Titcum's Creek), and after crossing the Karuah River, follows up Johnson's Creek to a junction with the original trial survey. This alteration brings the line within 4 miles of the town of Stroud, which is 5 miles nearer than the original route.

The

The second and most important deviation, about 36 miles in length, commences at the town of Gloucester, and following down portions of the valleys of the Gloucester, Barrington, and Manning Rivers, the latter of which it crosses below its confluence with the Barrington, and rejoins the original route at Wingham.

As a result of Mr. Firth's suggestions, an amended trial survey of the whole of the North Coast line was ordered. The portion between West Maitland and Taree was commenced in April, 1890, and completed in April, 1891, a much improved and less costly line with 1 in 60 grades being obtained.

In 1891 the cost of this amended line to Taree was estimated at £1,378,925, or an average of £12,130 8s. per mile. Since then, owing to the reduction of prices, the estimated cost has been reduced to £982,283, or an average of £8,629 15s. per mile.

1441. Have you anything to add to the statement that you have just read? Nothing with regard to that, but I have been asked to give some information as to the floods of the Avon River. I think that a letter on the subject was addressed to the Committee.

1442. A letter from Mr. Wiseman? Yes; I have had the drainage area of the Avon River above Gloucester calculated in the office.

1443. Have you read the letter from Mr. Wiseman, addressed to the Public Works Committee, referring to the flooded condition of the Avon in 1875, and the danger from back-water that would exist if the line as surveyed were constructed? Yes; I have made inquiry into the matter, and had the drainage area of the Avon above Gloucester calculated, and these are the results:—The drainage area is about 130 square miles. According to Professor Kurnot's formula—a formula that is often used in connection with similar cases—the area of waterway necessary to carry the river in flood is 2,500 square feet. The waterway available on the section taken up to the flood-level shown is 11,000 square feet, and consequently more than four times what is actually required, according to the theoretical considerations. The flood-level, shown on the section, above the bed of the river at the bridge is about 22 feet, and at the flood-openings, 15 feet above the ground, the formation level being 4 feet higher. The high flood-level shown is owing to the back water of the Gloucester River, the exit after the junction of the Gloucester, Barrington, and Avon, evidently not letting the water away quickly enough. Mr. Wiseman's letter gives a level somewhat higher apparently than what is stated. I cannot find out in the office whether the surveyor saw Mr. Wiseman and obtained any information from him, or refused to credit the flood-level at all, but I have his report here. The report is dated 12th June, 1891, and talking about this particular section, he says:—

* * * The only bridge of any importance being that required at the crossing of the Avon Creek. As I have already stated, the line, before reaching the Avon, traverses a low flat for a distance of about 30 chains, and as there is no doubt but that this flat is partially under water in times of heavy flood, it would be necessary to have this portion of the line raised some 15 feet. Although the ground on the southern bank of the Avon is low, yet, as far as I can judge, it would not be necessary to go to a great depth beneath the surface before reaching rock.

That is all he says about the flood-level.

1444. Does he say what length of line it would be necessary to raise to a height of 15 feet? He says that the valley is about 30 chains across.

1445. Would that be very expensive? No; I have looked into the matter since I returned from the district, as well as on the spot, and there is no necessity to have a crossing of that length. Mr. Stuart, who went over the waterways some years ago after the survey had been made, and made recommendations as to bridges, accompanied me on my visit to the district, and he pointed out a deviation which he suggested—which I have not troubled the Committee with—by which the crossing of the valley is very much shortened. I think that the Committee can rest very well satisfied that whatever is necessary to be done will be done in the event of the construction of the line being authorised, and that, as Mr. Stuart's proposed deviation is in the direction of cheapening the line, even if the line has to be raised to bring it over the level mentioned by Mr. Wiseman, it can be done for the money included in the estimate.

1446. Have you divided up the whole of the cost of the line showing what the section to Taree will cost, and then from Taree to Kempsey, and then from Kempsey to the next point? The estimates—which I should give the Committee to understand are approximate only, the quantities having been got out very carefully some years ago, but the revision being only an approximate one—are as follows:—Taree to Kempsey—Length, 78 miles 63 chains; estimated cost, £503,849; average cost per mile, £6,394; Kempsey to Coff's Harbour—Length, 65 miles 50 chains; estimated cost, £447,120; average cost per mile, £6,813; Coff's Harbour to Glenrigh—Length, 24 miles 27 chains; estimated cost, £197,047; average cost per mile, £8,096; Glenrigh to Grafton—Length, 26 miles 75 chains, estimated cost, £205,437; average cost per mile, £7,625. Total length, 195 miles 55 chains; estimated cost, £1,353,453; average cost per mile, £6,916. The total estimated cost from Maitland to Grafton is £2,335,736. The length of the section from Grafton to Lismore is 82 miles 28½ chains, and the estimated cost £591,801, making the total estimated cost of the line from Maitland to Lismore, £2,927,537, or an average cost right through of £8,022 per mile. The figures that I have given are exclusive of the cost of the bridge over the Clarence River at Grafton, but the cost of all the other bridges is included. It looks as if the proper place to cross the river Clarence would be a few miles above Grafton, and if you wanted to carry passengers right into Grafton, to do it by means of a punt, but to take the goods across the river 5 or 6 miles up, where the banks are higher.

1447. *Chairman.*] Will the North Coast railway, then, not pass through Grafton? It will pass through South Grafton.

1448. And then follow up the southern bank of the river? I certainly think that is the proper way to do it. I do not see why, if the Grafton station were made on the south bank of the river, a good steam punt or steam ferry-boats should not be used to take the passengers across to North Grafton from the station on the south bank.

1449. *Mr. Hoskins.*] The Clarence is wider at Grafton than almost anywhere else? It would be a very expensive matter taking a bridge across there.

1450. *Chairman.*] How does the width of the Clarence from North to South Grafton compare with the width of the Hawkesbury at the Hawkesbury bridge? The Hawkesbury bridge is a little under 3,000 feet long—a little over half a mile.

1451. How will that compare with the Clarence? The width of the Clarence varies between 1,360 and 2,376 feet.

1452. What did the Hawkesbury bridge cost? I think altogether about £362,000. The cost of the bridge over the Clarence would depend very much on what you want to do. If you want to build a high-level bridge it will be very costly, because the approaches will be very high.

1453.

H. Deane.
4 Mar., 1898.

- H. Deane. 1453. It must be above flood-level? Yes; but to be merely above flood-level it need not be a high-level bridge, for at North Grafton there is a strip of land which has never been flooded. In the town of Grafton itself, I think that the main street has been flooded to the extent of 2 or 3 feet.
- 4 Mar., 1898. 1454. Would the cost of the Hawkesbury bridge—£362,000—be a fair index of the cost of the bridge over the Clarence? I could not say without going into the matter. I do not remember whether any borings have been taken across there, and I should want to know what height you want to go. If you have a high-level bridge it must be sufficiently high to allow the steamers to go underneath it; but if you have a low-level bridge you must have an opening span of some kind, unless, as I suggest, you go higher up the river, which, I think, would be the better way to do it.
1455. You are now dealing with the question of the interception of the traffic? If you were to have a high-level bridge that would allow steamers to go under it, you would be at a great height on the other side of Grafton.
1456. Approximately, what would be the height from ordinary summer level to the top of the bank of the Clarence; would it go 25 feet? I daresay it does. To build a bridge at Grafton of sufficient height to allow the best class of boats, such as the "Kallatina" and the "City of Grafton" to pass under it, is impracticable on account of the low level of the ground on each side of the river—the approaches would be enormously heavy.
1457. Are we justified in regarding it as a fair approximation of the cost of the line from West Maitland to Lismore, in saying that it would cost something over £3,000,000 exclusive of the cost of the bridge over the Clarence, and that that extra amount being left unstated means that? Yes.
1458. The construction cost embraces buildings, or only the running road? Everything you require for the railway and its accommodation.
1459. But not land resumption? No.

TUESDAY, 8 MARCH, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. FREDERICK THOMAS HUMPHERY.	CHARLES ALFRED LEE, Esq.
The Hon. JAMES HOSKINS.	JOHN LIONEL FEGAN, Esq.
The Hon. CHARLES JAMES ROBERTS, C.M.G.	THOMAS HENRY HASSALL, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	GEORGE BLACK, Esq.
The Hon. DANIEL O'CONNOR.	FRANCIS AUGUSTUS WRIGHT, Esq.
HENRY CLARKE, Esq.	FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

John Harper, Chief Traffic Manager, Department of Railways, sworn, and further examined:—

- J. Harper. 1460. *Mr. Lee.*] Would you kindly tell us what would be the rate per ton for the carriage of sawn timber by rail from the Manning to Sydney? From Taree through to Darling Harbour the rate would be 10s. 5d. per ton, with a minimum of 6 tons per four-wheeled truck. I may add that our experience is that they cannot load more than about 4 tons per truck of the class of timber that would come from that district. Therefore the charge would practically be £2 2s. 8d. per four-wheeled truck. If they could load 6 tons per truck they would get it carried for the same as 4 tons.
- 8 Mar., 1898. 1461. Supposing they did not want to send the timber to Sydney, but to Maitland, or some other market, what would be the rate from Taree to Maitland? 8s. 6d. per ton.
1462. From Maitland to Darling Harbour? 9s. 11d. per ton if we charged at the absolute tonnage rate. We charge for the full truck load. It does not cost any more to haul a 6-ton load truck through than a 4-ton load truck through.
1463. But in the case of long timber, do you not use all open trucks? In that case we apply a different principle altogether. We charge for not less than 18 tons; but I am speaking of four-wheeled trucks.
1464. You could not possibly put 18 tons of sawn timber on one of those open trucks? Yes, you could.
1465. Of ordinary sawn boards? Yes.
1466. What would the rate be then? 10s. 5d. That is on the basis of the rate I have taken for the timber—8s. 6d. from Taree to West Maitland, and 9s. 11d. from West Maitland to Sydney.
1467. 10s. 5d. right through by an ordinary four-wheeled truck? Yes.
1468. It would appear then that timber could be brought to Maitland at a much lower price than it could be brought from the river by vessel, and thence by train to Maitland? Yes, I expect it would, if they paid our local rate between Newcastle and Maitland, but I should never anticipate they would do that.
1469. When you were making your inquiries did you ascertain whether there was much traffic of that character between the rivers or any portion of the route and Maitland? There is a good deal of timber grown in the district.
1470. But is Maitland a market for it? I should not say so.
1471. Supposing that you had the timber traffic from Taree, would you consider that 20 tons a week was an item of traffic worth considering? Every item is worth considering, so long as we get enough freight out of it.
1472. But for timber alone, 20 tons a week? I would not think very much of it as a reason for constructing that line, at all events.
1473. Do you think that the timber traffic would have to increase to very much more than that to be of any value to the railway? I have put down what I consider, judging from our experience, is really the outside limit, namely, £3,500 for the timber traffic from that district. If the line were built I should be surprised to see any increase in that volume of traffic if it did take place.
1474. I do not know how you get at your figures, because there is so much more in excess than I have been able to elicit; it is estimated by one very large firm that 60,000 feet of sawn timber—that is 20 tons—are coming out of the Manning River every week, and 20 tons at 10s. 5d. a ton would be £10 8s. 4d. a week, and fifty times that would be £562 10s. per annum? But I think that the evidence you

- you have had has been on the subject of timber that came from the navigable portion of the rivers; but this proposed line runs into back country, where timber has been exploited to a certain extent only. J. Harper.
1475. According to your evidence, the timber traffic would be equal to about £500 a year, but, as a matter of fact, you have estimated a return of nearly seven times as much as that, and therefore you think it is a very liberal estimate? Yes. 8 Mar., 1898.
1476. I mean seven times more than comes out of the rivers now? Yes; and, as I have explained in my report, the estimate is a very liberal one. However, in making the estimate, I had in view the fact that we were exploiting country that the rivers are not exploiting now.
1477. But if your estimate of quantity were reached in the aggregate, would not the cost of freight be considerably less, inasmuch as you would pick the traffic up at intermediate places? Yes, of course; but 10s. 5d. represents the carriage over the maximum distance. And you may practically multiply that seven by two, and make it fourteen. I have been anxious to give a most liberal estimate for that district.
1478. In your estimate you have allowed for timber traffic that may come not only from the Manning, but also from intermediate places? Along the whole of the line practically, and I have taken 10s. 5d. as being the maximum rate for haulage over the 114 miles.
1479. Your estimate is equal to 7,000 tons of timber per annum? It is equal to more than that; it is equal to about 30,000 tons.
1480. But is not that a very large timber freighting? It is about one-twentieth part of what the people of the district claim they would send on the line.
1481. *Chairman.*] It appears that the distance from Sydney to the Manning would be 232 miles by rail; the Secretary of the North Coast Steam Navigation Company has informed the Committee that the freight from the Manning to Sydney, either deadweight or measurement, is 12s. 6d. per ton;—what could you do it at? Our rate for our lowest class of traffic would be 17s. 2d. That includes maize. That, of course, includes the local rate over the line. The rate from Taree to West Maitland is 8s. 6d., and from Maitland to Darling Harbour 8s. 8d. All these lines are asked to bear a local rate until they pay. The estimate that is before the Committee of £18,000 furnished by the Commissioners, represents a rate based on the local rate being applied over the new extension. Of course, if through rates were charged you would have to adjust that estimate by probably dividing it by one-fourth.
1482. If the same rates were charged from Sydney to Taree as from Sydney to Murrurundi? The rate for 232 miles for produce would be 11s. 10d.
1483. That is to say, that if you were to carry grain for some parts of the Colony the charge would be 11s. 10d.; but you would have to reduce your estimate of earnings on this line if you were to charge only that amount? Applying local rates to that line, the charge would be 18s. 5d.; but applying through rates it would be 11s. 10d.
1484. But since your calculation is based on local rates, what would be the result? There is that difference all through. The through rate from Taree to West Maitland would be 8s. 6d., and the difference would be as between 17s. 2d. and 11s. 10d., nearly 7s. If you work that out you will see that we should only get about 1s. 10d. a ton on produce carried at through rates from there. Out of the 17s. 2d. we get 8s. 6d. to Maitland and 8s. 8d. from West Maitland to Darling Harbour; and for through carriage we should get 11s. 10d., as against 17s. 2d. That would be 6s. 4d., which, if we charged a through rate, we should sacrifice out of the 8s. 6d.
1485. That is a non-productive rate? I leave it for you, gentlemen, to form your own opinion.
1486. Along the other lines 11s. 10d. would bring maize to Sydney from a distance equal to that of Taree? Yes.
1487. Supposing that your calculation were made on a through rate, what would the effect be on your estimate? It is just the difference between 8s. 6d. and 1s. 2d. You would practically have to divide it by 7.
1488. There would be no increase in the volume of traffic? I do not think so; for, assuming you had to pay that, our rate for maize would be higher than the present steamer rate.
1489. The steamer rate is 10s. per ton; but of that there is one-fourth drogherage, which the steamer pays? Yes; as long as the steamer pays it. We have to bear a lot of charges in connection with railway freight; but we do not charge them separately on to our customers.
1490. The freight where the railway would compete with the ocean traffic would be only 7s. 6d., of which 2s. 6d. is supposed to be for droghing? I do not know what rate they could carry at. I should think that they ought to do it and be paid well at 5s. I think the present steamer rates are nominal rates.
1491. The distance to Kempsey appears to be 311 miles? The through rate would be 12s. 7d. to Sydney; the local rate would be £1 0s. 1d. at the lowest rate we have.
1492. The steamer freight from the Macleay is 12s. 6d. a ton and 10½d. a bag, or practically 10s. a ton for maize;—how does that come out with your figures? Well, the further you go with the railway the worse you get.
1493. We understand that, if the through rates are taken, the estimate must be reduced by a proportionate amount, and that the volume of traffic will not make it up? That is so.
1494. The distance to Grafton is 427 miles? The through rate would be 13s. 8d., and a local rate would be £1 2s. 2d.
1495. The distance to Lismore is 509 miles? We would charge 14s. for the maize grown there if the charged were based on the through rate; but on the local rate the charge would be £1 4s. 2d.
1496. The distance to the Tweed is 572 miles? The freight would be 6d. more per ton on the through rate.

Cecil West Darley, Engineer-in-Chief for Public Works, Department of Public Works, sworn, and examined:—

1497. *Chairman.*] We want some information with regard to the effect of the rivers on the country through which the proposed North Coast line would run? I have here a statement showing the area of the water-shed, the total length of each river, and also the navigable length. C. W. Darley. 8 Mar., 1898.
1498. Take the Tweed? 418 square miles water-shed; length of river, 46 miles, of which 23 miles, up to Byangum, is navigable.
1499. But the Tweed is really navigable for a certain class of ocean-going boats to Murwillumbah? Yes.
1500. Beyond Murwillumbah the river is only fit for droghing? Yes. 1501.

- C. W. Darley. 1501. What would be the draught of a boat that could trade to Murwillumbah? At present a boat cannot go there safely drawing more than about 8 feet.
- 8 Mar., 1898. 1502. Putting it at 6 feet, I think, would be better? Well, it is according to the tide. There is only one flat that is stopping boats from going up.
1503. And there is a possibility of a boat drawing 8 feet going to Murwillumbah where the North Coast line would meet it? It is only a matter of dredging to let a boat drawing 8 feet up.
1504. What about the Richmond River? The Richmond River has 2,683 square miles of water-shed; the total length of the river is 149 miles; and it is navigable up the south arm for 68 miles, part of the way by ocean boats, and the rest of the way by small droghers to Casino, and up the north arm for 60 miles to Lismore; but navigation ends at present at Irvington wharf, 2 miles below Casino—that is on the south arm.
1505. An ocean-going boat can proceed to within a few miles of where the North Coast line would be at Casino, and a boat drawing 8 or 9 feet could reach the North Coast line at Lismore; that would give us the competition of the Richmond as regards, say, an 8-foot boat? Of course, a boat drawing 4 feet—a drogher—can go up above Lismore a considerable distance. The Clarence River has 3,505 square miles of water-shed; the total length of the river is 240 miles, and the river is navigable for a distance of 42 miles to Grafton by ocean-going steamers of large tonnage, and to Copmanhurst, a distance of 67 miles, by droghers. It is open to navigation by 10 and 12 foot boats up to Grafton.
1506. *Mr Hoskins*] Large-sized droghers go above Grafton? Yes, droghers of good size, but drawing only 4 feet of water.
1507. *Chairman*.] Can you say anything about Coff's Harbour? At Coff's Harbour there is an ocean jetty, where vessels in moderate weather can either load or discharge.
1508. Up to what depth? About 15 feet.
1509. The same applies to Byron Bay? Yes; the same applies there, and also at Woolgoolga.
1510. The competition at Byron Bay, Coff's Harbour, and Woolgoolga would be with boats drawing up to 15 feet? Yes. Of course, that depends very much on the weather. In bad weather they cannot go there.
1511. What about the Bellinger? 479 square miles of water-shed; total length of river, 76 miles; and the river is navigable for 14 miles up to Cahill's, for punts and light vessels, and up the south arm for 15 miles; but only small-class boats can go in there.
1512. Boats of 6 feet draught? Five or 6 feet.
1513. Therefore, the competition at Bellinger would be with 5 or 6 foot boats? Yes, at present; but there is no doubt that the works now in progress may improve that.
1514. As the result of your works, do you expect a much greater depth? We ought to get up to 8 or 9 feet.
1515. Is it reasonable to believe that in the near future a boat drawing 8 feet will be able to enter the Bellinger? I think so.
1516. What about the Nambucca? 552 square miles of water-shed; total length of river, 58 miles up Taylor's Arm, and 56 miles up Bowra River; but the river is navigable only to Bowra—a distance of 9½ miles.
1517. What class of boat? About 6 feet.
1518. And there are the same conditions at the Nambucca as at the Bellinger? Yes; at times the bar is very bad indeed.
1519. At present there is an uncertain communication with 5 or 6 foot boats, but you believe that the works that have been suggested will make it possible for 8-foot boats to go there? The river can be improved up to 8 feet.
1520. What about the Macleay? 4,581 square miles of water-shed; length of river, 200 miles; the ocean-going steamers can go up to Kempsey, 32 miles, and droghers can go about 7 miles further—to Green Hills wharf. Good-sized droghers go to Green Hills wharf, and then the navigation ceases. There are rapids there. The Macleay is a good river for 7 or 8' foot boats now, and can be permanently improved, making it not difficult to get 10-foot steamers in there.
1521. What about Trial Bay? Trial Bay is practically the same as the Macleay. At present we have no wharf or means of landing goods in Trial Bay.
1522. You believe that it may furnish competition some day, but at what date you are not prepared to say? It is uncertain.
1523. Then we come to the Hastings? 1,398 square miles of water-shed, and 109½ miles total length of river. The river is navigable up to Morton Creek wharf, a distance of 19 miles, for 7 and 8 foot vessels. As to Port Macquarie, I may say that ocean boats do not go above Port Macquarie, but only droghers.
1524. What about Camden Haven? 238 square miles of water-shed, and the total length of the river is about 18 miles. The river is very fair for navigation at present, but only for small sailing boats, of 4 or 5 feet draught.
1525. Are there any possibilities of improving the Camden Haven? It can be improved and made suitable for 8 or 10 foot boats.
1526. Is there any local reason for its improvement;—is the district a good one? It is a fairly good district, but it is very limited, and at present the trade is chiefly in timber.
1527. Is the Camden Haven likely to be improved in the near future? Yes, at moderate expense. We can improve it up to an 8-foot port. It has a good south head, and is favourably situated for opening; it only wants the river to be properly trained.
1528. Does the district justify it, in your opinion? It justifies a reasonable expenditure.
1529. An expenditure that, in your opinion, will be likely to bring about the result you have suggested? Yes.
1530. What about the Manning? It has 3,164 square miles of water-shed, and is 141 miles long, and it is navigable for 29 miles up to Wingham; but the ocean-going boats only go about 22 miles to Taree.
1531. What class of boat? About 7 or 8 feet.
1532. And you believe that your works will enable a draught of 8 feet to be fairly well maintained? It will take considerable expenditure to improve it.
1533. You can keep it up to 8 feet by a considerable expenditure? Up to 10 feet by a considerable expenditure.

1534. What about Cape Hawke? Cape Hawke is just an inlet, but it has a water-shed of 514 square miles. There are two small streams—the Gooloongolok and the Wollomba—but the river is only navigable for punts about 20 or 30 miles. It is at present navigable for boats drawing 4 or 5 feet of water inside the entrance only, and not further. C. W. Darley. 8 Mar., 1898.

1535. Is there any probability of improvement? Not of very great improvement. It could be improved by a little expenditure, but there is nothing to justify any large expenditure.

1536. What about Port Stephens? There is a water-shed of 1,179 square miles, and there are two rivers, the Karuah and the Myall. The Karuah is about 67 miles long, and the Myall about 60 miles, and navigable to Booral, a distance of 27½ miles. Of course, considerable-sized vessels can go into Port Stephens. But, after that, the Myall River is navigable only for very small vessels.

1537. Almost any vessel can go into Port Stephens? Yes; almost any vessel can go into Port Stephens and get shelter there—can go a considerable distance up into the port; but the Myall River is navigable only for shallow-draught lighters.

1538. What about the Hunter River? 8,269 square miles of water-shed; total length of river, 500 miles. The river is navigable 34 miles, to Morpeth, and the Paterson and the Williams are respectively navigable for 18 and 20 miles above their junction with the Hunter River.

1539. A boat drawing how many feet of water can enter Newcastle? Twenty-three feet into Newcastle; but up the river only 10 or 12 feet.

MONDAY, 14 MARCH, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Richard Atkinson Price, Esq., M.P., sworn, and examined:—

1540. *Chairman.*] You represent the Electorate of Gloucester, in the Legislative Assembly? Yes.

1541. *Mr. Black.*] Would you like to make a statement by way of introduction? Perhaps it would be the better plan. Taking the district as it is now, although there is a considerable industry in the way of dairy-farming and agriculture, yet for want of proper facilities in the shape of roads and other means of communication, large areas of land exceedingly rich in quality are, at the present time, comparatively speaking, fallow. Of course it may be urged that the district has communication by water; but with bar-harbours, such as exist on the coast, it is impossible to send perishable stuff away, such as butter, farm produce, and live stock, and the progress of the district is retarded in consequence. In considering this line, you must not only take the portion of the country marked on the map, but must also include all that country running across to the county of Hawes. From some of those ridges I have sent specimens of soil to the Government Geologist, for analysis, and no doubt he will give the Committee the result. On those ridges at Rawdenvale and Curracabark, and towards Nowendoc, and right on the dividing line, the land is well adapted for wheat-growing, and also for the growth of the finer qualities of tobacco. Land nearer to the coast is adapted for producing the description of tobacco used as wrappers for cigars, and some of the better cured tobacco has brought as high as 2s. 6d. per lb. in the English market. The line would tap the whole of the county of Hawes. Owing to the number of cattle about there, it is probable that some attempt would be made to slaughter cattle and freeze them there. That would obviate the necessity of sending the stock over the stock route to Maitland, or across to Nowendoc over Hungry Hill, and on to Walcha Road. They now very often send the cattle across to Aberdeen, and, if a railway were constructed, this would be obviated. Perhaps, with the exception of some portions south of the Manning, the land in the district is suitable for dairy farming. There are large flats here and there where green stuff can be grown for winter feed. There exists a sufficient number of little hillocks protected by trees where cattle could be run, and the dairying industry, already pretty large, would become very extensive. I should like to take a few figures from the last Statistical Register, applying to the three counties of Macquarie, Gloucester, and Hawes, and also a portion of Durham. The actual area under crop in Gloucester was 13,452 acres; Macquarie, 25,906 acres; and Hawes, 178 acres. In the county of Hawes there is a large quantity of such land as I have just described. There is also an auriferous belt, a belt of diorite which goes across from Wallis Lake, and passes through Bulby as far as Cell's Diggings. It is about 5 miles wide. Then there is another auriferous belt running across to Nowendoc; that is about 7 miles wide. Then, coming across to Copeland, you meet a geological change, and leave the carboniferous formation. Here you have deposits of copper and limestone. These have not been worked to any great extent; but there are deposits both at Curracabark and Nowendoc. From samples I sent to the Mines Department we have had returns giving as high as 42 per cent. Until the lodes are opened up and developed, it is impossible to strike a fair average. The whole of that stuff would be brought down if facilities were given for cheap transit. The character of the country is adverse to the formation of roads, as a large number of small mountain ranges extend in spurs from the Dividing Range, and there are a number of creeks which render expensive culverts and other works of that nature necessary. A great deal of that land which is now used merely for grazing is so rich in character—I am speaking more particularly with regard to the county of Hawes—that, if facilities of transit were given, it could be utilised for dairy-farming and agriculture. I find on page 2 of the Statistical Register for 1895 that in the counties of Durham and Hunter the total area under cultivation on alienated holdings was 22,393 acres and 3,394 acres respectively. The number of male persons employed in agricultural pursuits was 1,384 in Gloucester, 1,673 in Macquarie, and only 17 in Hawes. For the reason I have already pointed out, Hawes cannot afford under present conditions to employ a very large number of persons in agriculture. Turning to grazing and dairy-farming, I find from the Statistical Register that in Gloucester there

R. A. Price,
Esq., M.P.

14 Mar., 1898.

R. A. Price, Esq., M.P.
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there were 6,419 horses, 6,946 dairy cattle, and 44,974 ordinary cattle; in Macquarie there were 7,542 horses, 5,792 dairy cattle, and 25,865 ordinary cattle; in Hawes there were 1,245 horses, 329 dairy cattle, and 19,879 ordinary cattle. Under the head of live stock in the sheep district of Port Stephens, which includes the greater portion of the district in question, there is an acreage of 942,368; 7,052 horses, and 46,841 cattle. I may say here that, of course, this line is only proposed as part of a north coast line, and in dealing with it many matters other than those of a local character have to be taken into consideration. For instance, this is to be a portion of a line which some day will make a connection right through to Queensland. In that sense it is a national line as well as an alternative line, and a line with advantages from a defence point of view. Turning to the Statistical Register for 1896, I find that the area of alienated land occupied, cultivated, enclosed, and unenclosed, &c., in the county of Gloucester, was 1,985,640 acres; in the county of Macquarie, 1,635,200 acres; and in the county of Hawes, 1,051,520 acres. I do not wish to include in my figures the county of Durham, as I presume that Mr. H. H. Brown, the member for that electorate, will give such evidence. An alternative route has been suggested branching across from Booral through Bulladelah. There is a quantity of very good timber on the other line. On the ranges at the back of the rivers and in the brushes towards Berrico, trees can be seen of a length of nearly 200 feet before the first limb branches out. The timber includes quantities of cedar, abundance of turpentine, and spotted gum. Another matter to be considered is this: Fruit being a perishable commodity, very little comes from that locality, although at Johnston's Creek, at the Monkerai, and also around Copeland, where some seedling oranges were put in some twenty-five or thirty years ago, a large quantity of this fruit is grown. Although not properly attended to, and grown in the natural state, these trees have produced some of the finest oranges in the Colony. The same may be said of other fruits. In the higher parts of the ranges we get colder weather, and there is an admirable class of apple produced. The land on nearly all these ranges is capable of producing exceptionally good fruit. The same remark applies to a lot of the country lying near Bulladelah and Booral.

1542. You spoke of the interference with sea communication by bar-harbours as being a reason why railway communication should be provided;—would that objection be taken away if, by some proposed harbour work, entrance was rendered easy at all times to the rivers of the coast? No; by reason of the amount of perishable stuff sent down, and the uncertainty of getting it out over the bars. Even though improvements were made to the entrance, a period of a week, or sometimes perhaps a fortnight, might elapse before communication would be possible.

1543. But I mean if the bars were removed? It is problematical whether you could remove them so as to ensure certainty of transit, even though you incurred enormous expense.

1544. But if it were done? A lot of country would be tapped by the railway, irrespective of that. For instance, at the Barrington, they have to take maize and other produce a distance of 70 miles to the harbour.

1545. You think that if the bars were entirely removed, there would still be a necessity for railway communication? Railway communication would develop the country, and facilitate dairy-farming and agriculture.

1546. Where would you find your market? You would find a market largely in Maitland, largely in Sydney, and largely in Newcastle.

1547. But which of these would be the market? It would depend entirely upon the fluctuations in the fat-stock market. Probably you would go to Muswellbrook with stores by train. If the market were good for fats at Aberdeen, you would send them there. It would depend entirely upon how the market fluctuated as to whether you would send to Maitland, to Sydney, or to Aberdeen. Then, in the case of produce, there is a big market at Newcastle, and a big market at Sydney.

1548. You are aware, of course, that it would be a good deal further by rail to Sydney than by steamer? That would be compensated for by the quicker transit in the case of perishable stuff. Suppose, for instance, you had a lot of pigs and cattle; by being able to truck them down, you would economise, even though you had a longer journey. People in the country do not mind a little extra expense, if they can get their produce quickly to market.

1549. You think that, provided they had a rapid steam service with no bar obstructions, they would prefer to send their produce to Sydney and Newcastle by the railway, and pay very much higher freight? With regard to the people in Hawes, and on the western side, I should say yes, because they would get their stock to the Maitland market by railway; while if they had to send them to the coast, they would have to drive them and knock them about.

1550. You do not anticipate that a railway would capture the traffic on the lines between the proposed route and the sea? Yes; it would catch all the traffic from the central portions. People would send farm produce by rail even though it cost twice the money.

1551. I infer from your remarks that you recommend the construction of the railway because of the capabilities of the district more than because of its existing sources of supplying traffic? The figures I have quoted show that the existing source of supply is very considerable, even comparing this district with the South Coast; for instance, in Gloucester the number of horses in 1895 was 6,419, and the number of cattle over 50,000; while the figures in the case of the county of Macquarie were also very large.

1552. Is there much land there available for farming purposes? Yes; there is a considerable area of Crown land not yet alienated. I think only 29 per cent. of the land has been alienated. In Gloucester the proportion of land alienated to the total area is 29.54; in Macquarie the proportion is 19.73; in Hawes the proportion of land alienated to the total area is 9.27. So that there is a large balance of Crown land available. Many of these lands have been set apart by the Crown as special areas, for which as much as £3 15s. an acre is asked. This land will grow good wheat and oat crops, and it still belongs to the Crown. There is also a large area under timber reserves.

1553. Of what does the chief timber consist? On the higher ranges you have brush box. On the Avon and around the brushes you have tallow-wood, spotted gum, and ironbark; and going over towards the coast line you have red and grey mahogany and woolly butt. Towards the coast line, the geological formation of the country changes, and you have entirely different description of timber. You then lose the forest box, but you come across some varieties of oak and rosewood, and other timbers useful for ornamental purposes—for veneering and for the manufacture of furniture. You have abundance of gray gum, ironbark, tallow-wood, spotted gum, and cedars.

1554. *Mr. Trickett.*] I suppose you are aware that this railway is estimated to cost nearly £1,000,000? Yes.

1555. And also that the railway Commissioners estimate that it will be run at a loss of £31,468? Yes. R. A. Price, Esq., M.P.
1556. Do you advocate a line to be constructed at the present time with such a prospect as that? The question is upon what data did the Railway Commissioners base their figures. For instance, they do not take into consideration the fact that it is only portion of a national line, that already one portion has been constructed, and it can only be considered a success as a whole. Then, again, owing, I suppose, to the limited time at their disposal, the Railway Commissioners examined the route in a very cursory manner, obtaining only a small amount of evidence. They went along in traps from Dungog to Gloucester. They went along the main road to Taree, and the only opportunity they had of judging of the country was a cursory glance from the top of a vehicle. They were not able to see that the country, being ridgy, is amply provided with water. There is abundance of water supplied by the tributaries to the Manning. Neither did they take into consideration the fact that behind each ridge there were large areas of good land in flats along the banks of the rivers—land capable of growing green stuff for the stock, and suitable for a prosperous dairying industry. Under these circumstances, I am inclined to think that the calculations made with regard to the probable traffic are somewhat misleading.
1557. Are you not a little mistaken as to the mode adopted by the Commissioners of getting evidence; did they not go a little more deeply into the matter than you seem to indicate? Some of the questions show that there was not that amount of information at their disposal which there might have been.
1558. We have had Mr. Harper before us, and he and the Commissioners have assured the Committee that they not only visited the route and the surrounding country, but also inquired as to the existing traffic and probable traffic? I think you will find that no analysis was made of the soil. They only visited the centres, and in ridgy and broken country like that, it is impossible, no matter how observant a surveyor or other officer may be, to ascertain the character of the country unless he rides through and sees it. It is sheer nonsense for a man to say he can go through a country which is one series of ranges and ascertain its character from a glance at one place and another.
1559. How would you regard this aspect of the case: The freight charges and fares by the steamer, taken as a whole, are much less than those which could possibly be quoted by the railway—how do you think that would affect a large amount of the traffic? I think the increased facilities would cause an increase of traffic. Where a man has perishable stuff he will pay more for its carriage. For instance, if you have a mob of fat bullocks, and want to catch the market, it will pay you better to truck them than to have them delayed and knocked about on the steamer. In the case of perishable goods and live stock, the advantages of rail transit are very great. Then again, the railway would be used for the carriage of general merchandise required by the people for consumption.
1560. Do you not honestly believe that the people would still adopt the mode of transit which was cheaper? No. If you had a quick means of transit, it would bring into existence a large amount of dairy-farming. This particular country is specially adapted for that industry. In the first place you have the rainfall, then you have a lot of rich country, providing shelter for the cattle, and you have small fertile flats where you can grow green stuff.
1561. You set up your opinion then on the conflicting question of water-carriage *versus* railway carriage against what is the experience everywhere—that where you have water-carriage, and it can be availed of, it is adopted in preference, because the price is cheaper;—is not that the general experience, not only here, but elsewhere, and why should not the same principle apply in this particular case? For the simple reason that all along that coast you have bar-harbours, and even though you may spend enormous sums of money, I think you will find the bars forming again. All along our eastern coast line we have that difficulty to contend against.
1562. Would you, then, advocate the abandonment of these harbours? Certainly not.
1563. You want money spent on a railway which would be run at an enormous loss, and you want also money spent to improve the harbours to compete with the railway? Because there is a large bulk of trade which could also be utilised for the harbours.
1564. *Mr. Clarke.*] Mr. Trickett has stated that water-carriage is cheaper than railway-carriage;—is not that a fact? Certainly; in every case.
1565. You stated that you would like to have the improvements carried out at the Manning River Heads as well as a railway to Maitland? Yes.
1566. Would not that be very costly to the country? There is a lot of heavy lumber traffic which could be carried by water. The railway will tap a good deal of country apart from the Manning. It seems to me that all that portion of the district in the county of Hawes, and all over that portion where it is exceptionally ridgy, is not taken into consideration at all. They have to go 60 miles to get to the water-carriage. What I want to impress upon the Committee is that there is a lot of back country beyond, and the people there are so situated that they have to go 60 miles to the water, and have to carry their stuff across the ranges.
1567. Assuming that to be the case, would the produce grown on the land which you now describe give a large amount of traffic to the railway? Yes, an enormous amount. The people there do not now grow produce to the extent they would do if they had means of getting it away.
1568. That would apply, I suppose, mostly to live stock and butter? It would apply to wheat and oats and straw crops, which on those ridges will grow exceptionally well.
1569. I thought wheat cultivation in that part of the country had been abandoned for many years. No; more wheat has been grown during the last two years, and there have been some fine specimens, without rust.
1570. Is not maize the chief product of the Manning River District? There is a quantity of maize grown.
1571. Is not maize grown on the whole of the rich flats of the Manning? Yes; and also a good deal of artificial grass, such as rye and clover for dairy purposes.
1572. Still maize is their heaviest item of trade? Yes.
1573. If this railway were constructed, you think that the maize would come by steamer in preference to the railway? It would come by steamer.
1574. It would not come by the railway? Not all of it—a good portion would come by the steamer, unless of course, there was a fluctuating market.
1575. Live-stock and fruit and other goods of that kind would come by rail? Yes.
1576. Are they going in for dairying in that district? Seven new creameries have been started there.
1577. Would that cause a great deal of freight—as much as the maize at present grown? Taking the number of cattle in the district, it will be seen that the freight in butter would be very considerable.
1578. Butter being in a small compass would not pay the railway or the steamer so well as maize? The Barrington maize would come down by rail, because now they have to travel 56 miles to get to the water.

TUESDAY, 15 MARCH, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

George Charles Yeo, draftsman, Stock Branch, Department of Mines, sworn, and further examined:—

G. C. Yeo.
15 Mar., 18981579. *Mr. Lee.*] The return you furnished to the Committee on a former occasion included the whole area from the extreme northern boundary of the Colony right through the north coast district to Maitland? Yes.1580. And you were asked to furnish a reduced return showing the area that would be affected by the line as proposed? I gave that information on the last occasion. I split the country up into three different districts. I have to-day a return showing the stock travelling from Taree to Maitland. There is only one route by which stock travel. They travel *via* Wingham, crossing the Manning River at Washpool, thence *via* Gloucester to Maitland. The stock traffic by this route from Taree to Maitland last year comprised 30 horses, 2,000 cattle, and no sheep. Mr. Hoskins asked for some information concerning the A.A. Company. The extent of their area at Gloucester is 116,480 acres; and for 1896 they returned 126 horses, 8,180 cattle, and no sheep; and for 1897 they returned 127 horses, 9,273 cattle, and no sheep.

1581. In your return for travelling stock from Taree, would the Gloucester traffic be included? Yes.

1582. That return included stock from all sources? Yes; they would all come from the Manning and intermediate places.

1583. How many animals are carried in a railway truck, as a rule? I could not say.

1584. Taking ten cattle to the truck, the figures given would represent a total of 200 trucks? Yes.

1585. *Mr. Wright.*] Is there any country at the head of the Manning and about Port Stephens, outside the A.A. Company's land, which is occupied by pastoral holdings? I do not know of any.

1586. Is there not some on the eastern fall of the mountains on the coast side of Armidale? Yes; those would be about the most easterly pastoral holdings, and would include the station of Guy Fawkes. Of course, further towards Armidale there would be some pastoral holdings.

1587. With these exceptions, there are no pastoral holdings other than the A.A. Company's land between the table-land and the head of the rivers? No; only small holdings.

1588. *Mr. Hassall.*] Can you give the Committee any information as to the class of cattle embraced in your returns? I know they have started the dairy industry up there lately, and a good many of the cattle, I suppose, would be dairy cattle; but most of them would be small lots of "fats" from small holders about there—small lots coming into the Maitland market from farmers.

1589. Are there any large returns from stockowners in that district? There may, perhaps, be two or three.

1590. Can you give approximately from memory the number of stock returned by some of the largest owners in the district? I think one owner returned about 2,000 cattle. The largest number is that returned by the A.A. Company, namely, 9,000 odd. Then, I think, there was one owner who returned 1,000, odd. The balance is made up by small holders.

William Edwin Tunks, Land Valuation Branch, Department of Public Works, sworn, and examined:—

W. E. Tunks, 1591. *Mr. Roberts.*] You are an officer of the Valuation Branch, Department of Public Works? Yes.

1592. Have you prepared a statement with reference to the proposed railway? Yes. I have prepared an estimate of the probable cost of the line in connection with the resumption of the necessary land? The estimate is as follows:—1,360 acres, £10,500; severance, £8,000; buildings, £4,500; forced sale, £1,500; cost of transfer, £500; total, £25,000; less betterment, 6,500; leaving, £18,500.

1593. Does that include the whole of the land that will be required for the railway all the way from Maitland to Taree? Yes. It provides for a width of a chain and a half and also for a station at each of the towns, and at intervals of 10 miles between the towns.

1594. Have you been over the line yourself? Yes.

1595. Where do you propose putting the stations? At each of the towns of Paterson, Dungog, Gloucester, Wingham, and Taree, and also at intervals of 10 miles between those places. This was done under instructions from the Engineer-in-Chief.

1596. Is the area mentioned the usual area of land taken? Yes, I think so in lines of this description:

1597. What is the width on either side of the line? Forty-nine feet on either side, or 1½ chain right through.

1598. What portion of the line do you regard as the most valuable? The portion between Maitland and Dungog, for the reason that there are more town lands there.

1599. Then you go through the Municipality of Dungog? Yes.

1600. After leaving Maitland, where do you first pick up the A.A. Company's land? The A.A. Company's land is the other side of Dungog—the other side of the Williams River. It is about 10 miles the other side of the Williams River before you pick up the A.A. Company's land.

1601. Does it extend to the Manning? No; the line only passes through the A.A. Company's land for a distance of 35 miles altogether.

1602. Roughly speaking, what is the average value at which the A.A. Company's land is assessed? At an outside value of £1 an acre. The railway passes through the better portions along the creek flats and nearer to the road.

1603.

1603. What is the average value of the land per acre from Maitland to Taree? The average value of the country land is about £3 an acre. That is exclusive of damage by severance, and including improvements, such as clearing and ringing. The average for the town lands is about £77 an acre. A good deal of town lands will be taken for this line. W. E. Tunks,
15 Mar., 1898.

1604-7. Where will they be situated principally? In Dungog, Maitland, and Paterson, and to a small extent in Wingham.

1608. Then I understand that the A.A. Company's land averages £1 all through? Yes.

1609. Speaking generally how would you describe the land through which the whole of the line will pass;—as fairly good country? Fairly good country for grazing, and along the river flats there is some splendid agricultural land.

1610. There are large areas of fine agricultural land? Yes.

Richard Atkinson Price, Esq., M.P., sworn, and further examined:—

1611. *Mr. Clarke.*] Is the country through which this line would pass thickly populated? No; in the central portion it is sparsely populated. R. A. Price,
Esq., M.P.

1612. Can you give the Committee any idea as to the quantity of goods that would be carried by the proposed railway if it were constructed? Do you mean the quantity with its present development, or the quantity if the capabilities of the country were developed. 15 Mar., 1898.

1613. I mean the quantity of goods at present, so as to give an idea of what the return would be from the carriage of those goods? I could not give that information, because the line will create its own traffic in live stock.

1614. You cannot then give any information as to the probable quantity of goods that will go over the line, so as to form some idea of the revenue that will be derived? Yesterday I gave you the figures as to the number of cattle we have there at the present time, and I also quoted the area under crop. Those figures would show the actual quantities in the central portion that would be carried by the railway.

1615. Do you think, in the event of the line being constructed, there will be a large increase? Undoubtedly.

1616. On the Manning, and right through from Maitland to Taree? I am dealing more with the central portion of the district. I am not touching the Manning so much. The whole of my argument deals more with the central and western portion of the line.

1617. If all the produce would go by rail instead of by steamer, can you give us any idea whether there would be sufficient traffic to make up the estimated loss of £31,000? If the whole of the produce for which the country is adapted, and which would be developed, were passed over the line—taking a high state of development—I think it would. I have not worked out the figures, so I cannot say for a certainty; but there would be an immense amount of traffic. For instance, at one place near Barrington, there is a flat locally known as Avon Flat, on which I should say 3,000 families could be profitably employed in farming.

1618. You are aware that a very large sum will be required for the resumption of the land to be taken for the railway, the total amounting to £18,500? I should imagine an arrangement could be made with owners of the land. In the estimate given, I suppose the cost of severance is included. Considering the immense improvement that would be given to the adjoining land belonging to the large holders in the district, I should take it for granted that under the Public Works Act these large valuations will be much reduced. That is a point which should be taken into consideration.

1619. Do you think it possible that the people who own the land through which the line would pass would give it free of cost? I certainly think an arrangement could be made with the A.A. Company, and I think it would be only a fair thing that, the line passing through their land, they should give the greater portion free of cost.

1620. As to this you have no direct evidence, but merely, I suppose, speak on hearsay? Yes, on hearsay; but I believe the land would be given free of cost.

1621. It was stated yesterday that the proposed expenditure on the breakwater at the Manning Heads would be about £100,000? Yes.

1622. The interest on that at 3 per cent. would be about £3,000, and that would be an additional item which the country would have to pay? I think you misunderstand my argument. I have referred to good land in the back country, comprising part of Gloucester, and part of the county of Hawes. Between these lands and the Manning River there is a journey across a series of ranges—including the Brush Mountains and others—of about 50 miles, and the traffic from that part of the district would not go to the coast at all.

1623. But would not the greater part of the heavy traffic still go by sea? Certainly not. A lot of the traffic I speak of would go by land.

1624. Would the maize grown on the Manning River flats go by rail? I am not speaking of the Manning River flats; I am speaking of another portion of the country. The cost of conveying goods to and from Nowendoc and Wingham is £7 a ton. The rate is the same from Rawdenvale and Berrico to Wingham. You have to go over all these ranges I speak of.

1625. Do you think the produce grown on the Manning River flats would go by rail? Some of it.

1626. On the whole, you think the railway would be more useful for perishable goods and live stock than for heavy goods? Yes; that is my contention.

1627. Would there be a considerable passenger traffic? Undoubtedly. There is coal at Stroud which would create a traffic, and there is a series of gold-reefs at Kurraki which are capable of supporting a large population. A yield of 40 oz. to the ton has been obtained at a level of 260 feet. There is an extensive belt of auriferous country, some of the reefs having been proved at various depths, which promises great possibilities in the future.

1628. Do you consider that if this railway were constructed from Maitland to Taree it would be in the public interest? As a national line ultimately, and if the resources of the country were properly developed the traffic would be such as to ensure a sufficient return. I take it that this is only a section of the north coast line.

1629. *Mr. Hassall.*] You know the country very well? Yes, every inch of it.

1630. Do you look upon the land held by the A.A. Company as highly improved land? No; there is no improvement upon it at all.

1631. None whatever? Well, comparatively little.

- R. A. Price, Esq., M.P.
15 Mar., 1898.
1632. Practically, then, it is as they got it years and years ago? There is a good deal of clearing done here and there, but practically it is as they got it.
1633. The land, in your opinion, is not very valuable? A lot of it is valuable, and would be suitable for dairy-farming if cut up.
1634. In view of the extent of country belonging to the A.A. Company through which the proposed line would pass—and I think I understood you to say there was a considerable demand in the locality for land suitable for settlement—do you not think it would be advisable for the State to resume the whole of that land and make it available for closer settlement before constructing a railway? I anticipate that the Government will carry out their intention, in connection with the Bill they introduced, called the Lands for Closer Settlement Bill. I anticipate the Government will push on that measure—they have had it dangling a long time now before the people—and that they will resume the land around the Avon Flats, and the land around Gloucester—lands adapted both for cultivation and dairy-farming.
1635. But it does not seem justifiable to incur such a large expense in the construction of a railway through that country, unless some different conditions prevail? The A.A. Company have subdivided the greater part of it, and they grant leases at a lower price than the Crown does. They will sell the freehold or the greater part of it, and if facilities were given I take it that dairy-farming would be established on a very extensive scale.
1636. In view of the proposal now before this Committee to improve the mouth of the Manning River, do you think the country would be justified in going to the expense of constructing a railway through that country, under existing conditions, and also incurring the expense of improving the navigation of the Manning River in order to serve the same district? Yes; because a large portion of the traffic which would be served by the opening of the Manning River would not be affected by the railway, owing to the ranges lying between the coast and the country referred to.
1637. Then, is the country through which this line passes practically inaccessible from the coast? Well, it would cost you about £7 a ton to take your stuff from Nowendoc to the harbour, or to the head of the navigation of the Manning.
1638. In view of the estimated loss upon this line, do you not think it would be necessary to impose higher rates than are imposed upon lines of a better paying character? This line would be a great feeder to the Northern line.
1639. I want to find out if there is a loop-hole by which we can come to the conclusion that the estimate of loss is too high? I am inclined to think it is too high. I have already pointed out that an officer visiting the district and going along the main road would not be able to get a correct idea of the character of the country. In order to see the country, it is necessary to go off the road, and then it becomes almost inaccessible. I may say that the main road passes through the worst of the land.
1640. As an alternative, which do you think would be the most beneficial to the district along the coast—the improvement of harbour accommodation and river navigation, or the construction of a coastal line of railway; because it must be evident that if the railway is constructed from Maitland to Taree it cannot stop there for ever? I think that the two things could go on *pari passu*.
1641. But, provided you were not able to obtain both these schemes, which do you think would be the more beneficial to the district—the improvement of the navigation or the construction of the railway? We have got the improvement of the navigation, so I do not think we need enter into the calculation.
1642. *Mr. Roberts.*] Have you been over the whole of the proposed line from Maitland to Taree? I have ridden over every square inch of the country.
1643. You are perfectly familiar with what is known as the alternative route, by way of Seaham? Yes.
1644. Have you formed any opinion as to which line you prefer, or as to which would be the best in the interests of the community? I have not gone particularly into the question, as it relates to that part of the district surrounding Seaham and Dungog. I have dealt more with the upper portion around the county of Hawes, and towards the north-west corner.
1645. Would not the eastern line interfere with the navigation of the rivers over which the line would pass? No; I take it you could throw up the banks in places sufficiently high, or you could construct a draw-bridge.
1646. How is the produce from different parts of this district now taken to market;—it is all taken by river, is it not? The produce from Barrington has to be taken 72 miles for shipment or to get it to rail, and this costs a lot of money.
1647. But a large amount goes down the Paterson, does it not? Yes; that would go from the Dungog side. It would go down the Williams.
1648. The traffic is done principally by way of the Paterson, the Williams, and the Manning? The Williams, the Manning, and the Hunter.
1649. If a railway were constructed, do you think a large number of people would cease to use the river? For perishable stuff, yes. Bulky stuff, such as maize, would still go down by the river. There would be a great advantage in sending by railway as regards loading. Without a railway, you have first of all to load your dray, send your team to the harbour, and unload the produce on the steamer. Then there is the delay, and when the steamer reaches the wharf in Sydney the stuff has to be again unloaded into drays, and from there afterwards unloaded. On the other hand, sending by railway, you simply truck your goods at the station, and in the case of live stock they are landed at the Homebush market without any further handling. The value of live stock carried to market by steamer is much depreciated owing to the knocking about the animals receive. If you had a good market for “fats” at Maitland, they could be conveniently sent there by rail, whereas if they had to be shipped on the coast they would have to be driven along the roads and taken on a sea voyage. Under these circumstances it would be really more profitable to send live stock by rail, even though the freight were higher. Our farmers suffer much from delay in getting their produce to market. It has frequently happened that great loss has occurred among consignments of fish and poultry shipped at the Manning.
1650. Is it not a fact that the great delay which takes place in getting produce to the market has caused the agitation for the North Coast railway? Yes, to a great extent. The present state of things retards the progress of the district. On the Barrington they grow maize, and not being able to send it to market they feed pigs with it.
1651. Have you any regret that the whole of the North Coast line from Maitland to Grafton was not sent on at once to this Committee? I have. The line should have been sent as a whole. I do not think that you can consider the question fairly, dealing with it piecemeal. I think it should have been referred to

to the Committee as a national work. Independently of its commercial aspect there is the question of national defence. You have not a fortification along this part of the coast, where there are places of access and some valuable towns, and in the event of a filibustering expedition—though I do not suppose there is much danger of that—you would have no means of rapidly transporting troops and guns.

R. A. Price,
Esq., M.P.
15 Mar., 1898.

1652. As a public man, and a Member of the Parliament of the country, you look upon this proposal, do you not, as an instalment of what is termed the North Coast line, running from Maitland in a northerly direction to Grafton, and possibly right on to Brisbane? That is the aspect in which I look upon it. I look upon this line as only a section, and though from a commercial point of view it might be an expensive line, still we must consider the question of the North Coast line as a whole, and recognise that it would be necessary to carry out that line sometime or other. It would even pay to incur a loss upon this section in view of the great advantage which would accrue from the total length of the railway when constructed.

1653. Do you know the North Coast district? Yes, every part of it.

1654. How does the North Coast district compare with the South Coast district as regards the resources of the country, the natural beauties of the place, and the adaptability of the soil for farming purposes? On the South Coast, having an easy get-away for their stuff, they have cleared a lot of land, and have planted it with rye grass and other artificial grasses, and have carried out drainage improvements, and obtained appliances for dairy-farming. But I think that if properly developed the resources of the North Coast district are greater. They have a greater extent of back country not touched by a railway. Owing to the position of the coastal range in the south, there is there a comparatively small area of land. Speaking of the North Coast as a pleasure resort, you have there a chain of lakes 80 miles long. There is one lake 13 miles by 7 miles, the best fishing-ground in Australia. There are Wallis Lake and Myall Lakes extending down to Port Stephens.

1655. And you have in that part of the country every known mineral? Yes; that is a point I omitted. There is a deposit of alum there quite phenomenal in character. It is larger even than the Italian deposits. I myself on the Myall have obtained sulphide of antimony containing as much as 80 to 100 oz. of silver to the ton. I have had assays made of copper from the country round Carracaback which have given as high as 42 per cent. of copper down to 2 per cent. Then, according to Professor David, there are iron deposits there, some being sedimentary, and others consisting of large ironstone blows, which, owing to the absence of titanitic acid, compare favourably for industrial purposes with any ironstone found in Australia. One defect in the ore is that in some cases it is too rich. In one portion of the district, the cheapest kind of road metal they can get is a brown hematite ironstone, similar to that which is imported by England from Spain. Then at Stroud you have the coal on edge, and we do not know what experiments might prove with regard to some decent deposits there. The coal has been used for forge and other purposes, and I have no doubt that some of it would be suitable for railway purposes. Then going up further you have contiguous belts of limestone. An analysis of the limestone at Bulladelah showed a result as high as from 80 to 86 per cent. Then lower down we have the same thing. In fact, the country is one mass of rich minerals.

1656. You think it only wants a railway to develop these vast resources? Yes; and judicious administration on the part of the Mines Department.

1657. Do you think a large population would quickly settle there if a railway were built;—is not the land all the way from Maitland to Taree admirably adapted for settlement? Yes; because you have there what does not exist in any other part of the Colony, not even in the South Coast. You have a network of rivers or creeks. At Rawdenvale, at Carracabark and at Bawman, and also at a place called Cobokh, you can drive batteries by water power which is never-failing. At the Buchans, looking from the road, you see nothing but immense cliffs which everywhere stare you in the face, and you think the country is all barren; but, crossing the range, on the next ridge past Berrico you come to Rawdenvale, at which place Mr. J. T. Laurie, J.P., one of the oldest residents of that district, experimented in growing arrowroot, with the result that samples which he sent to the exhibition in Paris obtained a gold medal. He was also successful at the Philadelphia exhibition, and altogether received high diplomas for his arrowroot at seventeen different exhibitions. Then again, on the authority of Mr. Sutherland, a Government expert, it has been established that parts of the district will grow tobacco successfully. Both the soil and the humidity of the atmosphere are favourable to the growth of this product, and tobacco can be grown similar to that produced in the Levant, in the Mediterranean. On the coast cigar-wrapper leaf is grown, and on the plains the land will produce tobacco suitable for plug. I should like to say that I have received this morning a letter from Mr. J. Fenning, of Kurraki, an extract from which I should like to read to the Committee, as the reef to which it refers is indicative of a hundred and one other reefs which have been proved to a small depth and abandoned:

“The south drive is showing splendid gold. Main reef crushing about 36 tons. When done will furnish splendid stone. If the north and south reefs keep as good as they now are, the next crushing will be a sensation.”

THURSDAY, 17 MARCH, 1898.

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. JAMES HOSKINS.

The Hon. CHARLES JAMES ROBERTS, C.M.G.

The Hon. WILLIAM JOSEPH TRICKETT.

HENRY CLARKE, Esq.

CHARLES ALFRED LEE, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Bartholomew Martin Corrigan, shipowner, sworn, and examined:—

1658. *Chairman.*] You are a shipowner trading to the northern rivers? Yes.

1659. What is the freight between the Tweed and Sydney? On an average about 10s. per ton at the present time.

1660. If the river be improved according to the design, at what rate would you be able to carry goods? At from 7s. to 8s. per ton.

B. M.
Corrigan.

17 Mar., 1898.

TUESDAY,

TUESDAY, 22 MARCH, 1898.

Present:—

THE HON. FREDERICK THOMAS HUMPHERY (VICE-CHAIRMAN).	
The Hon. JAMES HOSKINS.	CHARLES ALFRED LEE, Esq.
The Hon. WILLIAM JOSEPH TRICKETT.	GEORGE BLACK, Esq.
The Hon. DANIEL O'CONNOR.	FRANCIS AUGUSTUS WRIGHT, Esq.
HENRY CLARKE, Esq.	FRANK FARNELL, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

William Edwin Tunks, Land Valuation Branch, Department of Public Works, sworn, and further examined:—

- W. E. Tunks.
22 Mar., 1898.
1661. *Mr. Lee.*] I asked you to furnish some additional information the last time you were here; have you obtained it? Yes; it was with regard to the A.A. Company's property. I have a tracing showing the portion of the property which has been sold. Those portions appear to be the only ones on the estate suitable for agriculture.
1662. And they have been sold by the company? Yes; the portion of the tracing edged yellow shows the A.A. Company's property; the portions coloured pink have been sold by the company; the portions comprise about 20,000 acres adjacent to the railway.
1663. About where would they be situated? The road goes through the centre of the purchased land, and the railway runs near the road. Most of the land sold is between the railway and Stroud. For about 16 miles along the railway line the land has been sold commencing from portion 639.
1664. Is there any arrangement between the Lands Department and the A.A. Company to exchange land upon this estate? I could not say.
1665. Have you any other information with regard to this particular estate? No, only that the sold portions appear to be the only portions fit for agriculture; the rest is simply fit for grazing.
1666. Is it used by the company for that purpose? Yes.
1667. You think the company have sold all the best portions? I believe that inquiry will elicit the fact that all the best portions of the estate have been sold.
1668. Do you think the Committee would be right in inferring that the construction of the proposed railway would not add largely to the agricultural area? Not through that estate. There are good patches of agricultural land along the creeks on other portions of the estate, but they are only here and there.
1669. Are there any reserves for villages or townships along the estate? Only at Gloucester, near the railway line.
1670. The Church and School Lands bound the estate on the western side? Yes.
1671. Do you happen to know how the bulk of that land is held at the present time? It is held under lease at rentals based, I believe, on an average capital value of 6s. per acre.
1672. The proposed railway passes through the A.A. Company's estate for a distance of about 52 miles? Yes. As I have already explained, a good deal of the estate has been sold.
1673. Have you estimated the possible claims for severance which would arise from injury to the A.A. Company's property and to the property of those who have purchased from the company? I have dealt with the other owners separately and distinctly from the company. I have dealt with the A.A. Company for about 35 miles on the line.
1674. You are aware that the Maitland end of the line passes through two or three valuable estates;—have you taken into consideration the claims that are likely to arise for severance in respect of those estates? Yes, the whole thing has been taken into consideration.
1675. Have you any recognised principles guiding you in forming an opinion of the possible damage by severance? Yes, there is loss and inconvenience of working through the railway passing through property. The conservation of water has also to be allowed for. Supposing an estate is divided, for instance, in such a way that one portion will lose its water, in such a case we would allow for conservation. In the case of the A.A. Company's estate there would be very little severance; the railway would divide the property into paddocks, which would be an advantage in a way.
1676. Suppose it were decided that the line should not be fenced, how would you then estimate the loss from severance? In that case the owners would have the means of crossing. The crossings would be allowed at convenient places. Wherever possible, level crossings would be constructed to mitigate the claims for severance.
1677. Considering that a large amount of private land is involved in the proposed railway construction, do you think that you have so estimated the claims which might arise as to prevent the possibility of a largely increased amount of subsequent claims? Our estimate has been made to cover everything. The opinion of the Acting District Surveyor at Maitland was that the country lands all through should average about £2 an acre. That would be the value of the land only. My estimate is based on a higher rate than that. Severance has been allowed all through. In many cases, as I have explained, instead of involving a loss, it is really a betterment, because it has the effect of dividing the property into paddocks.
1678. The department has to consider many claims of this kind? Yes, they are constantly cropping up.
1679. Then you ought to be in a position to give us authentic information upon this point;—do you see in this proposal anything of a character different from that of other proposals with which you have had to deal? No; it is similar to most country lines.
1680. There is not much land held under conditional purchase on the route? I do not think there is any land which has been alienated from the Crown within the last five years.
1681. Your estimate, then, is really upon the basis of actual freehold? Yes.

MONDAY,

MONDAY, 23 MAY, 1898.

[The Committee met at the Chamber of Commerce, Newcastle, at 2 p.m.]

Present:—

FRANCIS AUGUSTUS WRIGHT, Esq. (TEMPORARY CHAIRMAN).

The Hon. DANIEL O'CONNOR.
JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

The Hon. Alexander Brown, M.L.C., merchant, Newcastle, sworn, and examined:—

1682. *Mr. Black.*] Perhaps you would prefer to make a general statement in regard to this proposal? The purpose, I understand, for which the Committee are met is to consider the desirability of constructing a railway from West Maitland to Taree. If the proposal is confined purely to a railway from West Maitland to Taree, I look upon it as practically commencing at a datum point, but ending nowhere, and unless it were the basis of a continued North Coast line, I could hardly say that there would be any warrant for its construction.

Hon. A.
Brown,
M.L.C.
23 May, 1898.

1683. Of course, in constructing a railway of that character, you must always take into consideration the possibility of its extension? Yes, certainly. It would all depend on the point it is to start from and where it would end, but I suppose it would be, as you say, an element of consideration that finally it would be extended from its present point so as to reach all the large centres on the North Coast. Assuming that this is to be a portion of a North Coast line to be extended to the line already in existence in the northern portion of the country—the Lismore line—I should say from what I know of the country that I think it is very desirable to construct it. There is a fairly large population already settled, and because of the productive character of a large portion of the country, it would be capable of supporting a very large number of inhabitants, to whom the proposed railway would give means of communication with a large market in the Newcastle district, where there is a very large consuming population; and it would also bring that portion of the Colony into direct touch with Sydney, whose market is not now available to them, because of the spasmodic steam service by which they are necessarily served at present.

1684. Has Newcastle a trade of any dimensions with the North Coast? Newcastle has not such a trade with the North Coast as it would have if it had the opportunity of supplying the requirements of the people there. At present the boats that serve the North Coast do not call in at Newcastle, except only now and again. They make a direct service to the north instead of calling in at this port.

1685. That is to say, there are no local steamers trading from Newcastle northerly? No. The service is between Sydney and the northern rivers. A steamer calls in here occasionally when required. I am referring now more particularly to the North Coast Steamship Company; but I think that a gentleman named Yager has steamers trading between the different places, and if I remember rightly they make Newcastle a continuous port of call.

1686. The chief products in the north, I understand, are timber and maize? Yes.

1687. There is, I suppose, a large market in Newcastle for both those products? I think so. I should fancy that that country on the coast is capable of growing almost anything, especially when you get farther north to the rich flats on the Richmond and the Tweed.

1688. Do you think that timber or maize brought from the North Coast by rail, especially maize, could compete in the Newcastle market with water-borne maize or timber, or with maize grown in the immediate vicinity of Newcastle? No; I do not think so, not at the present rate at which the Railway Commissioners' tariff is fixed for the carriage of these products, but I can hardly look upon the settlement of these rates as the laws of the Medes and Persians, especially when you take into consideration the facilities offered for the carriage of grain and other produce to the seaboard in America and other large countries.

1689. You think, then, at prevailing rates, they could not compete, but that under a rate which you think would be a more just one competition would be possible? I think so. For instance, I doubt very much the prospect of doing anything in regard to the harbours on the North Coast, except merely making them accessible for small craft. I do not think it is possible for those ports to assume the importance of Newcastle or of Sydney, and while they are entitled to be served to a reasonable degree out of the expenditure of public funds, I do not think the time is ever likely to arrive when they will come into competition with a place like Newcastle or Sydney, which has the world for its market.

1690. In other words, the Northern ports are likely to be only places of collection of goods which will find their market elsewhere? I think so; intermediate depôts.

1691. Places of collection and distribution? Yes; places of collection and distribution. I do not think that we, for instance, shall always be confined at Newcastle to the shipment of coal. We have already developed a direct shipping trade in wool and general merchandise, and so we will in wheat and other produce, to other parts of the world from here. That never can obtain, I think, at the northern rivers.

1692. Do you think it would not be possible to so improve the northern ports as places of entrance that you could have a more regular service than you have now? I think so. I think that the expenditure of public money which is going on at those ports now ought to give them extra facilities, but it will not give them facilities for merchandise that has to be sea-borne in the class of ships and steamers which are gradually being built.

1693. If those ports were made more accessible—if a larger class of vessel could enter them, and if the bars which are now shifting and always dangerous could be to some extent permanently removed, do you think that the steam-shipping trade would not be put in such a position that it would be almost impossible for the railway to enter into competition with it? I should not think so. I should think that the land-carriage on a large portion of the material that is produced would be benefited by its proximity to the railway line—in other words, that it now has to be carried to the rivers, and when you put the rail-carriage on to it at a reasonable rate, I do not think that a large portion of the produce, at any rate, would be affected by it; that is, looking at the possibilities which there are in the north with the fertile lands on the North Coast.

1694.

Hon.
A. Brown,
M.L.C.
23 May, 1898.

1694. I suppose that the producers of the more perishable goods—such as butter, bacon, and so on—would prefer the railway? Yes; I think that the want of some kind of communication like that has retarded the great settlement that would have taken place on those rivers if they had had an opportunity of access to market which they have not got to-day. The possibilities of some of these fertile lands are almost marvellous.

1695. You think that it would open up the country for settlement? I do. I happen to know, of my own knowledge, a couple of acres of land that have been well cultivated on the Hunter River, and the produce from that land during the last twelve months, after paying for every expense, has represented £80 divided between two men.

1696. I suppose that under any circumstances the coal which is sent north from Newcastle would go by steamer? Yes. For the purpose of coal transit, I do not think that any railway can compete with water-carriage.

1697. Do you know of your own knowledge if there is any trade between Newcastle and the northern districts in cattle? I cannot say of my own knowledge, but I should think that there would be a good deal of stock come from the north-east.

1698. You have not had any opportunity of examining the proposed route of the railway, have you? No; I have not had any opportunity of examining it. I know something of the locality in which it would go.

1699. You are aware, of course, that it would be rather an expensive railway to construct, because of the number of rivers which run from the dividing range towards the sea? It would be an expensive railway. I have always understood that a North Coast railway was likely to be an expensive railway, but I have also understood that the estimate has been based on the heavy expenditure we have hitherto borne for all our railway lines; but I presume, judging from authorities, that the expense might be considerably minimised. A light line of railway is at all times infinitely preferable to a road.

1700. No doubt it would cost less to make, and also less to maintain? Yes; and it is also a better means of transit, and likewise a source of revenue.

1701. Being informed that the cost of constructing the North Coast railway from West Maitland to Dungog would be £8,440 13s. per mile; from Dungog to Gloucester, £7,572 12s. 8d. per mile, and from Gloucester to Taree, £9,784 6s. 4d. per mile, or a total of £982,283 for the whole construction, with an average throughout of £8,629 15s. 4d. per mile—do you think that under all the circumstances such an expenditure is warrantable? I do not. I should say let it wait, if those figures are correct. They must build railways a good deal quicker and better in America than we do. It was only last night that I read of a contract signed in America for the construction of a railway in Mexico for 350 miles, and the contractors undertook to have 150 miles of it built and in working order in November. In the face of the figures you have given me, I should be disposed to let the project wait.

1702. Do you think if it were possible to construct this railway at the rate of about £2,500 per mile such an expenditure would be justifiable? I do, most decidedly. With an expenditure of from £2,500 to £3,000 per mile, a light line of railway to serve the people of the north would be justified in every sense.

1703. But when you come to figures three or four times as much as that, you hesitate and say it would be better to pause? I think so. We cannot afford to do otherwise.

1704. *Mr. Fegan.*] In 1891 the original estimate of cost was £1,378,925; another survey was made, with the result that the estimate was cut down by £396,642;—still, you think that £982,000 is too high? I do.

1705. And that any line constructed at a cost of £8,400 per mile could not be expected to pay for a considerable time? I do not think that such an expenditure would be justified.

1706. Do you think that the primary reason for constructing a line should be to make it pay? No; that does not necessarily follow, because if we had attempted to carry that out we would never have constructed any railways in the Colony.

1707. You think that the primary idea is to give people facilities to get a market and to open up the country and settle population? Yes, when eventually the railway will pay for itself; but when you come to unwarrantable expenditure it is another thing.

1708. You cannot support the proposal now before the Committee, seeing that the cost would be so great? On those figures I cannot support it.

1709. You know that at the present time we are spending some thousands of pounds in making the approaches to the various rivers on the North Coast much better than they are now? That is the object, I understand; but it is all Government money, and it is being spent principally by the Government, and I know what Government expenditure is.

1710. Is there a possibility of getting that money back, or any percentage on it? Not unless the Government collected port dues, or something of that kind. Indeed, I think that the small amount that they would collect there would be infinitesimal.

1711. Instead of doing that at some of the ports to which this railway, if it were constructed further on, would be contiguous, do you not think that the railway would supply those people even better than the harbour and river works that are being carried out now? Then you deprive them of all means of water-carriage.

1712. You say that you cannot support this line on account of the enormous cost, but as you know that the Government are carrying out works on the northern rivers, and do not propose to charge the people there a penny for carrying out those works, how are you going to get a return for the thousands of pounds spent on those rivers? You will get no return at all, so far as I can see; but we have spent large sums of money there already, and we cannot get it back.

1713. But there is no doubt that ultimately this line would be only the commencement of the North Coast railway? We must be connected with the North Coast by rail; but the question is whether on those figures the time is now expedient for it. I do not dispute those figures—that would be setting my judgment against that of the Engineer-in-Chief—but I have very grave doubts whether in America they would not get some one else to verify them.

1714. But, pending a better survey than we have at the present time, do you think that the people of the North Coast should have some facilities to get their produce to market? I do.

1715. Therefore, the money now being spent on harbour works you do not disapprove of? I do not. As a section of the community the people there are entitled to some consideration.

1716.

1716. *Mr. Hassall.*] Do you think that the country would be justified in spending money on the construction of the proposed railway and also on the improvement of the harbours and rivers? I do—a reasonable expenditure. Hon.
A. Brown,
M.L.C.
1717. That is only on the assumption that the railway could be constructed at a reasonable expenditure? 23 May, 1898.
1718. You are aware that the principal part of this railway runs through private property—the A. A. Co.'s Estate? I am not aware that it does.
1719. Over 50 miles of it traverses that estate? From what I remember of that part of the country I do not think it is of very great value.
1720. Do you think that the construction of a railway through it would open up that country or make it more densely populated? I think so.
1721. Have you any knowledge of that country at all? Yes, I know something of it.
1722. Would you give the Committee your opinion in regard to the country that you know which would be traversed by the proposed line of railway? Some of it is shockingly poor land. It is not very valuable—all of it.
1723. What proportion of it would be suitable for settlement? A very small percentage, indeed, would be suitable for closer settlement, and that would be in the neighbourhood of Taree.
1724. So, practically, the line would have to traverse the greater portion of the country before coming to country—that is, in the Taree district—suitable for closer settlement? Yes; I think so.
1725. *Temporary Chairman.*] Can you tell the Committee if much of the produce of the northern districts is consumed in the city of Newcastle and its environments now? A good deal.
1726. How does it reach here? By rail and by water. It comes by water by means of droghers on the rivers, and then by boats from the North Coast rivers.
1727. Do the North Coast districts supply Newcastle with much butter? I think not. I think that the butter is produced locally; but maize and potatoes, and that kind of produce, find their way here in large quantities.
1728. And there is in Newcastle and its surroundings always a large market for such commodities? The Newcastle people are a consuming population entirely. They are engaged in enterprises which take up all their time, and they depend for produce on the North Coast districts.
1729. There are practically between 40,000 and 60,000 mouths to be fed in this district by the North Coast districts? Yes.
1730. I think you said that you think the small settlers in the north should have reasonable facilities given them by the improvement of their rivers? I do.
1731. It is proposed to spend £50,000 at Port Macquarie, and £50,000 at the Manning River Heads, and a smaller amount at the Bellinger and also at the Nambucca Heads for the purpose of giving those people a certain and ready means of transit;—do you think that the country is wise in undertaking that expenditure? So long as the money is judiciously spent, and is not thrown away as it was at Lake Macquarie, to give them facilities they want, they are entitled to it.
1732. Will there be any prospect of the railway successfully competing for the produce of those districts if we give them fairly good harbours; nearly all the cultivatable land is on the banks of the rivers, and steam droghers go up and down and collect the produce almost at the farmer's door, whereas the produce would have to be carried to the railway;—do you think that under those circumstances any large proportion of the produce would be carried to this railway if it were constructed? I do. I think that a railway there would be practically the same as a railway on the Hunter, where a large proportion of the produce is collected on the banks of the river from certain settlers, but a large proportion also goes down by rail to the metropolis and to Newcastle.
1733. What proportion of the heavy produce of the Hunter goes by rail;—what proportion of the maize, lucerne, and hay is carried by rail as against water freight? A very considerable proportion.
1734. And of other products? Yes.
1735. Are you aware that the products of the northern rivers consist very largely of maize and timber? Yes.
1736. The steamers at the present time do not bring the timber, but they bring the maize? Yes.
1737. Do you think that the railway could successfully compete with water-carriage for the maize? I think it could if the rates were reasonable.
1738. Summing up your evidence it amounts to this, that if a railway could be constructed on the North Coast for a moderate sum the possibilities of the development of that coast are so great that you think the State could undertake the responsibility? You have summed up my evidence in those words.
1739. But you think that the construction of the railway would not be satisfactory unless its objective point were Queensland? That is so.
1740. *Mr. Fegan.*] Do you think that the estimate for goods and passenger traffic, and everything else from Maitland to Taree, about £18,000 per year, is a fair one? I think it is a low estimate.
1741. The annual cost is estimated at £49,468, and the traffic receipts from live stock, goods, coaching, &c., is estimated at £18,000 per year, leaving a deficit of £31,000 a year;—do you think that the estimate of £18,000 for passenger traffic and everything else is too small? I think it is a very careful one.
1742. Careful in what direction? In the direction of economy.
1743. You think it is rather low? I think so.

William Lowe Kidd, Mayor of Newcastle, sworn, and examined:—

1744. *Mr. Fegan.*] Are you acquainted with the country from Maitland to the proposed terminus of this railway—Taree? No; I am acquainted with the country about Maitland and towards Dungog, but no further. W. L. Kid .
23 May, 1898.
1745. Will you kindly give us a description of the country so far as you know it? So far as that, it is very good for general agricultural purposes.
1746. What is it utilised for? Growing maize to a great extent, and hay and general farm produce.
1747. No wheat grown there? No.
1748. There was a time when a great portion of that country was under wheat? Yes; at one time.

- W. L. Kidd. 1749. What is the reason why the people ceased to place it under wheat? On account of rust.
 23 May, 1898. 1750. But the question of rust has been got over to a considerable extent lately by scientists? I know they now have wheat that will to a certain extent stand against the rust.
 1751. Therefore, there may be a possibility, with greater facilities than the people there have at present, of opening up that country for wheat-growing again? There might be, but I question whether it would pay them to grow wheat instead of what they are growing.
 1752. They are growing maize chiefly? Yes; maize and hay.
 1753. And cattle and dairy produce? Yes; and my opinion is that they are much better-paying products for farmers than wheat.
 1754. That greatly depends on the prices? Exactly.
 1755. Do you think that the construction of a railway there would give them better facilities than they have at the present time? Undoubtedly.
 1756. Do you think that it would be the means of inducing closer settlement there? Not in the district that I know. I think they are pretty well served by the river at present, and I question if the railway would be of much more service to them.
 1757. Do you know the estimated cost of the proposed line? I have heard it stated while Mr. Brown was being examined.
 1758. In round numbers, £1,000,000? Yes.
 1759. Do you think that is a very high estimate? I think it is.
 1760. Do you think there is no possibility of the line paying under those conditions? I do not think it could possibly pay.
 1761. Are you acquainted with the estimate of traffic for the proposed line? Only what I have heard mentioned while I have been here.
 1762. It is something like £18,000 per year? Yes; for the whole length of the line.
 1763. Considering the great cost of construction, and considering the working expenses will be about £49,000 per annum, and the estimated traffic receipts only about £18,000 per annum, you cannot see your way clear to support the scheme as at present before the Committee? Not at that expense.
 1764. That is just your present position? Yes.
 1765. Do you think it is wise that the terminus should be at Taree instead of further on? The answer to that question would, of course, depend a great deal on the facilities the people have on the seaboard in the shape of harbours. If they have good harbours farther north I think it would be a mistake to make a railway to compete with them.
 1766. You are not personally acquainted with country farther than Dungog? No, I am not.
 1767. Therefore you do not know the country the line is to pass through except so far? No. I have only read of it.
 1768. You think that under present circumstances the cattle and dairy produce and the other produce grown in the district at present pay them better than wheat-growing would? I feel certain that they do.
 1769. *Temporary Chairman.*] You heard Mr. Brown's evidence? A great deal of it.
 1770. You heard him say that if a railway could be constructed between Maitland and Taree and along the North Coast at a moderate cost, (say) between £2,500 and £3,000 per mile, he believed it should be constructed? I think so too. I am very much of the opinion which he expressed, viz., that it is better to construct a railway at a moderate cost than to make and maintain a road.
 1771. Do you think that if the State could construct a railway from Maitland or some point near that town to the Queensland Border through our coast lands at a cheap rate, it should be constructed and the State would be justified in its expenditure? I think so.
 1772. You hold the same opinion that Mr. Brown does, that it is really premature to construct a railway at the enormous sum which this line is estimated to cost? Yes.
 1773. You think that we should wait until the population is more dense on the northern rivers, and which would justify the construction of a railway there? I think that the expenditure is too much for our present population.

Alfred Francis Hall, civil engineer and licensed surveyor, Newcastle, sworn, and examined:—

- A. F. Hall. 1774. *Mr. Hassall.*] Have you heard the evidence given by Mr. Brown and Mr. Kidd? I heard all Mr. Kidd's evidence.
 23 May, 1898. 1775. Do you agree with him? I have a better idea of the country beyond where he speaks of.
 1776. Under these circumstances, would you kindly make a statement to the Committee in regard to the character of the country traversed by the line? Yes. I have surveyed land all through the A.A. Co.'s Estate and up about Underbank, Dungog, Copeland, the Barrington, Gooloongoolook, and the Port Stephens district generally. I know the proposed line of route for this railway from Dungog up to the Manning River very well, and I think that if a light line were constructed it would give a good return. By a light line, I mean a line of about 52-lb. rails and a narrower gauge than that proposed.
 1777. Costing what? I have estimated that it would cost about one-fourth less than the estimate for the 4-foot 8-inch gauge. I would propose a light line with a 3-foot 6-inch gauge. I know the "Gloucester" Estate very well—the A.A. Co.'s property—and I estimate that there are about 20,000 acres of land there equal, perhaps, to the medium Hunter River lands. I know it was intended to cut that up at one time or another to make farming lands of it, but I made an estimate of what it would cost at present, and I estimated that 33 bushels of corn to the acre would have to be grown to pay freight to Raymond Terrace or the Karuah River. Consequently that to do any good with that area of land you would have to make it into poultry-farms or pig-breeding runs, and drive your produce to market. You can never look upon it as an agricultural area, although in itself it is one. I know the country to the North Coast. There is a very heavy traffic in cattle. I have often seen 5,000 head going down to Maitland, to be sent thence to Homebush, both store stock and fat stock. But the fat stock was not in such large mobs as that.
 1778. Is that fattening country up there? I think they come from the New England district by way of the Barrington. There is an unlimited supply of limestone and ironstone within 10 miles of the proposed line on the east side. Within a couple of miles of it, close to Dungog, there is limestone, and I think that if there were a railway there that might all be brought into use in Newcastle. I think that the A.A. Company have about 130,000 acres of land in their estate that would be suitable for settlement, and there is some very valuable timber which, under present circumstances, does not pay to cut on their land, and also east of their eastern boundary. 1779.

1779. What description of timber? Ironbark chiefly, hardwood and cedar. It does not pay to bring timber down to a water-course there beyond a limited area. Nothing beyond Stroud could go down by water. In surveying land for the A.A. Company I always reserved this trial survey line. Whenever a person selected land on the A.A. Company's estate the instructions to me as contract surveyor were to reserve the railway line as surveyed, and we reserved a chain and a half in width wherever we found the railway survey line. Going up the Karuah River, and from Stroud to Gloucester the country is undulating and there are a good many water-courses running into the Karuah, and it is difficult country from Dungog to the Monkerai, and also pretty difficult going towards Krumbach; but I certainly think that a light line with rails such as I suggest could be run over that country for about £5,000 per mile at the very outside. I have surveyed about 150 miles of light lines in New Zealand, and comparing this with one particular line I know of, I think this ought to return a fair profit on the outlay. I cannot speak of the country beyond the Manning River; but there is a good deal of fair country on the Manning which cannot be touched by droghers, and the produce of which would have to find its way down by teams to Tinonee or Cundletown, and perhaps there it might get a drogher to Taree, and go out through the Heads by steamer. That would certainly, in my opinion, embrace 15,000 acres of land on the Manning that must be 20 miles from a steamer. It is outside the A.A. Co.'s estate, of course, and up the Manning. There is a good deal of good country up the Monkerai, on the Church and School Estate, and also a lot of bad country. The same may be said of the A.A. Co.'s land. 300,000 acres of the A.A. Co.'s land is not worth owning. That remark would apply to a good deal of the area coloured yellow on the plan, lying to the east. I should say that a strip of land north-west of the Gloucester River, comprising 30,000 or 40,000 acres, is practically valueless. The same remarks applies almost to the whole of the eastern boundary of the A.A. Co.'s land for a distance of 5 miles, and from 3 to 5 miles westerly from the eastern boundary towards the proposed railway line is also valueless; and a strip down to the western boundary of the A.A. Co.'s land for a mile, may also be classed as being the same kind of country. The Crown land lying east of the A.A. Co.'s land, and painted yellow on the map, is very similar country. Practically, with the exception of the land along the banks of the water-courses, it is similar land to that which I have described on the A.A. Co.'s Estate. The A.A. Co. let their land. They have sold about 30,000 acres of the estate. They retain about 140,000 acres for a run. They will lease you any of the rest of the run land that is outside the township of Stroud, and near the Karuah River, for about $\frac{1}{4}$ d. per acre per annum. You can get about 20,000 acres of the A.A. Company's land for about £12 per annum. I made an estimate of how many acres it took to run a head of cattle on that part of the estate, and I estimated 70 acres per head. That applies to about 300,000 acres of the A.A. Company's land. There are about 120,000 acres which might be settled upon. Any land that is good is inclined to be close to the railway.

1780. The land lying along the route of the proposed railway is fairly good; but when you get 3 or 4 miles from that it is practically valueless? Exactly. As I had said, the "Gloucester" land is very excellent, and a good deal of the reserve of 15,000 acres is very good grazing land—to the west of the Church and School land,—and then the gold-field's area lying to the north-west of Dungog is very superior grazing country.

1781. *Mr. Black.*] You think it would be advisable to construct a light line in this locality; but when you speak of a light line, you mean light, not only as regards sleepers and rails, but also light in the matter of earthworks, do you not? Yes; I am speaking of a narrow gauge line.

1782. But if the country is undulating will it not require earthworks whether the line is or is not light? Yes. Every 4 feet 8 inch gauge has 17 feet at the base of the cuttings; and I think the reason for that is that they anticipate duplicating the line at some time. That appears the system adopted in New South Wales, and I do not think in this case there is any occasion for it. I think that a 3 feet 6 inch line along a 10 feet base-cutting would answer all the purposes required in this place for the next hundred years, and give very great facilities not at hand to-day.

1783. Do you not think that the character of the country and the rainfall are such as would necessitate a heavily-ballasted line? I am speaking only from my own experience, and I have been in New Zealand, where I think they can give you a start for grades, and their lines do not cost anything like the money you speak of. They, of course, go in for a different class of station, and do not put up such buildings as you have at Armidale. People laugh at the New Zealand railways with their 3 ft. 6 in. gauge, though they put in fair average time with their express trains, and they run 20 miles an hour with many stoppages.

1784. But a heavy rainfall necessitates heavily-ballasted lines? Yes; but I surveyed 40 miles of line, and it cost £2,100 per mile complete. That was done as a district railway. I certainly think that if £5,000 was the limit, you could put in a light line of railway from West Maitland to Taree which would answer all the purposes for many years to come.

1785. *Mr. Egan.*] What kind of a road have you from Maitland to Taree? The best "bike" road, I believe, in the colonies.

1786. Therefore there is not very much inconvenience to the people residing there in getting their produce to market? Except as to expense. It costs £3 per ton to get produce from Gloucester to Raymond Terrace or the Karuah River.

1787. How many miles is it from Gloucester to Raymond Terrace? Sixty-four.

1788. They pay £3 per ton on a macadamised road? Yes, they do.

1789. Do you not think that is a very high rate? I know that is the price that I was charged. The mode of conveyance is chiefly by bullock-teams. They go about 10 miles per day with a load of 4 tons. The country is not rough, but that is all they can bring down.

1790. You say you have had experience in New Zealand in railway engineering? Yes.

1791. What is the gauge there? 3 ft. 6 in.

1792. That is the standard gauge throughout that colony? Yes.

1793. Do you not think that the position materially differs when the standard gauge is 4 ft. 8 in. here? I admit that it would be necessary to re-truck at West Maitland, and it would cost 4d. per ton to re-truck.

1794. But seeing that we have not got a 3 ft. 6 in. gauge in this Colony, and seeing also that there is a notion prevalent that there should be a uniform gauge, do you not think that it would be very objectionable to the Railway Commissioners and the travelling public to alter the gauge to 3 ft. 6 in.? I should not advocate it on the main line, but for a feeder.

- A. F. Hall. 1795. But would not that be a main line in time to come? If it is intended to be a main line of course my contention falls to the ground. If it is intended to carry this line eventually to Queensland most of what I have said I withdraw. I am speaking of a line from Maitland to Taree.
- 23 May, 1898. 1796. But would you propose a terminus at Taree;—what have you got there to supply your terminus? I do not believe at all in dead-ends on the railway.
1797. Very well, then, you must take it further on? Yes.
1798. Where would you propose to stop? I do not know the district beyond Taree.
1799. But this really means the beginning of what may be termed a North Coast line? Under these circumstances, what I have said would be of very little assistance to you. I am treating it as a branch line from West Maitland to Taree.
1800. According to your evidence a great portion of the country is of inferior quality, and the line would not pay a return on £900,000? I do not think you could have dumped down 500,000 acres in any part of New South Wales as bad as the A.A. Co.'s Estate.
1801. Therefore the Committee cannot look forward to opening up a large tract of country upon which to settle population there? I think that the railway might open up about 250,000 acres altogether—that is, within that limit-line.
1802. Fair land? Yes.
1803. The other is entirely inferior land? Yes, as far as my judgment goes. There is some very good land around Gloucester, and almost as good along the Barrington River up as far as a township called Barrington, and a strip right down the proposed line of route. You may say for the whole length of the railway you get 80,000 acres of good land on the A.A. Co.'s Estate.
1804. What kind of land is there around Dungog? They have some very excellent land there—land that has been assessed under the Land Tax at £15 per acre—agricultural land. Whatever becomes of the proposal to construct a railway right through to Taree, I do think there ought to be a railway as far as Dungog. Dungog is a flourishing township, and has a good back-ground.
1805. It is how many miles from Maitland? Thirty-six or 37, I think. I have seen them carrying milk in the coach from Wangat to Clarencetown. They do it three times per week. It is 34 miles to Clarencetown.
1806. Is it good country at Clarencetown? There is not much good country immediately at Clarencetown; there is a little good on the Williams River. The country is good along the Williams River for a narrow strip. I should certainly advocate this line going as far as Dungog, even if nothing further were done, and if it cost over £8,000 per mile, I think it would pay handsomely.
1807. From your knowledge of the country, you think that a railway should be constructed from Maitland to Dungog, as it is a more thickly-populated country than the other portion of the line now before the Committee? Yes; and I should advocate extending gradually as population increases. I advocate the American system—sending out a feeder first, and seeing how much it would pay.
1808. You have no doubt that a line to Dungog would pay? Yes; even on Mr. Deane's figures amounting to £300,000.
1809. Were you a land valuer under the Land and Income Tax? I was.
1810. Was this part of your district? I did all the A.A. Company's Estate, and about 300,000 acres lying to the north-west, but I also know the Dungog country very well, and I feel confident that a railway to Dungog would pay, even on Mr. Deane's estimate.
1811. *Temporary Chairman.*] You speak about a construction of a narrow gauge railway;—is it your opinion as a gentleman having some knowledge of what has been done in the other colonies, that New South Wales might profitably construct cocks-pur lines on the narrow gauge principle? I do think so.
1812. Do you think there are many districts in New South Wales where the requirements of the district and its productiveness would justify the construction of a narrow gauge line, whereas by waiting for a broad gauge line those people would be deprived for many years of the advantages of railway communication? I unhesitatingly say so.
1813. You think that if it is determined to construct this line for the purpose of serving the North Coast districts as far as the Manning River, the country would be justified in constructing a narrow gauge line at an expense not exceeding £5,000 per mile? I do.
1814. Whereas if it is proposed to construct a standard gauge railway at an expense of £8,000 or £9,000 per mile, you do not think the country is justified in doing it? Yes; I cannot see where it would get any return.

WEDNESDAY, 25 MAY, 1898.

[The Committee met at the Council Chambers, West Maitland, at 2 p.m.]

Present:—

FRANCIS AUGUSTUS WRIGHT, ESQ. (TEMPORARY CHAIRMAN).

The Hon. DANIEL O'CONNOR.
JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Alexander Wilkinson, Mayor of West Maitland, sworn, and examined:—

- A Wilkinson. 1815. *Mr. O'Connor.*] How long have you lived in this district? Since 1832.
- 25 May, 1898. 1816. You know the route of the proposed line of railway from near Maitland to Taree? During my travels I have come across several surveyors' marks which, I believe, indicated the trial survey route.
1817. Have you ever been from Maitland along the route? Yes, a good many times to the Manning.
1818. You have been from Maitland to Taree along the proposed line of route several times? Yes.
1819. You know the country well? Fairly well. I have been to the Manning River from Raymond Terrace and by Seaham, and also by Clarencetown and by Dungog.
1820. Would you kindly tell the Committee what you think of the proposal to construct a railway to connect the Metropolis, *via* Maitland, with Taree? I think it would open up a good deal of new country that

that is barely populated at present, because they have no means of getting to market except by a long route along the road. It is very precarious, I think, going by steamers. I have been two or three days going from the Manning to Sydney by steamer—in the "Rosedale" and the "Murray"—and we stuck on the bar twice in one day going over it—not very badly. We were drawing about 6 ft. 6 in., and I think there was about 7 ft. 6 in. on the bar, and the sea was calm, and yet we stuck twice on the bar. I remember being at Taree when the steamer "Rosedale" was bar-bound for more than a week, and the passengers had to go by coach. I had difficulty in getting away on account of the seats being rushed. We crossed the river at Tinonee, and came on by way of the Brushy Mountain to Gloucester, and so on to Raymond Terrace. The country beyond Raymond Terrace, at any rate as far as Booral, is poor land—ironbark ridges, I think, principally—but after you get to Booral the country improves very much, and a mile or two, or perhaps a little more, out of Stroud you come to the Karuah River, and the land there is excellent, but it is rather patchy. The Karuah River is east of the range which divides the Williams River from the Karuah River. It is not a very high range, and on the eastern side of that slope there are very nice patches of land. The river is like all other rivers—it is very crooked—and in those patches there is fine cultivation land. I think it commences about 8 or 10 miles from Stroud, but I believe that most of that land that I am now describing is Church and School land, or was Church and School land. I think it runs up 8 or 10 miles—I am not certain—but the A.A. Company's land runs from somewhere on the Raymond Terrace-Irrawang road to past Gloucester. When I was at Gloucester I was detained there one day, and I spoke to some of the old residents. I think Mr. Hooke was one. He lives at Dungog, and he told me, I believe, that the whole of that area of land was a cattle run, and that only three or four people were employed as caretakers, and that there was quite room enough there to settle 1,000 families upon good arable land—that is, on the A.A. Company's estate. The traffic from the Copeland diggings up to the end of the table-land of New England—Giro—all the traffic up that way and on the Barrington must come down by this road either to Raymond Terrace or to Morpeth. The country from Maitland towards the Paterson and right up the Allen is fine land—a good deal of farm land and excellent pastoral land—and so it is in the county of Gloucester generally. The Paterson is in the Durham district. The Gloucester is the best-watered district I was ever in, the rain there is evenly distributed, and a great deal more of it falls there than about Maitland. It is a fine timber country, the upper end particularly, from the Gloucester to the Manning. It is 45 or 50 miles, I think, from Gloucester to Tinonee, and there are many farms there. The farmers can take their produce only by pretty long water-carriage to Tinonee, and then the difficulty is to get it to Sydney. My brother used to reside on Oxley Island—that is on the south arm of the Manning River. I have been there several times from Tinonee, and the land there is splendid—equal to that on the Hunter. I mean the land on the river flats east from Tinonee. On the west side of Tinonee it puts me in mind of Morpeth. Tinonee is on high land, and on the opposite side of the river is the Taree land, and on the west there are fine, rich bottoms right up to Wingham, which is at the head of navigation. I have been to Wingham, and it is a fine agricultural district. There is fine timber there, and a little to the north of Wingham there is what is called Cedar Party Creek. There is good land upon that, and also good timber. That is 6 or 8 miles from Wingham. Cundletown is 4 or 5 miles below Taree, and the country on the Cundletown side as far as Cooperbrook, which is about 10 miles farther down—and that has been the extent of my journey—is splendid grazing land, something similar to Miller's Forest land, between here and Raymond Terrace. It is rather subject to floods, but that does not injure the grass land. There are several dealers in stock there, who get cattle from the New England district, fatten them there, and bring them down to market here. The difficulty they have to contend with is that the expenses are so heavy that it would not pay them to send small lots at a time; but if they had more conveniences of carriage they would, perhaps, be more regular in sending their cattle to market. They might also send pigs and sheep. Pigs, in particular, they cannot send now. It is a splendid fruit country too. I cannot give you any statistical information as to the amount of crops raised; but they told me, and I know from my brother's experience when he was there, that 50 or 60 bushels of corn to the acre was only a fair average crop.

1821. What is the particular place where you say 1,000 families might be sustained? That was on the A.A. Company's land, from Gloucester towards the Manning; but that is, of course, agricultural land, and would have to be purchased, I suppose.

1822. What would be the distance from the place you speak of to the Manning? The north part would be about 20 miles; but from the bottom it would be about 50 or 60 miles. Forty or 50 miles of that country is owned by the A.A. Company alone. The A.A. Company's land comes within 20 miles of Taree.

1823. Is your statement as to the extent of that country, which you say would sustain 1,000 families, based on your own personal knowledge? No; from information I obtained the day I was stopping there.

1824. What is the quality of the country from Maitland to the Paterson? On both banks of the river Paterson it is good agricultural land, whilst the land on the higher part, away from the river-bank, is first-class pastoral land—that is, for dairying purposes or anything of that kind I do not think that better land could be obtained anywhere. From the Paterson township the land is splendid agricultural land; but it is not of such large extent as is the agricultural land about Maitland.

1825. Is that land at present under cultivation? On the banks on both sides of the river Paterson it is utilised, and crops are being grown upon it.

1826. Do you mean that at some distance back in both cases the land is not utilised at present? Only for grazing it is.

1827. If there were better facilities of transit do you think that that land would be lucratively employed? Certainly. It is better watered—there is a greater rainfall—than it is further west, up the Great Northern line.

1828. There is a large quantity of land there—several hundred acres, I suppose—at the present time utilised only in a middling kind of way? It could be better utilised—not so much between here and the Paterson, because they are not so far away from the market; but the farther you go up the more expensive the carriage.

1829. Can you speak from personal knowledge of the country about Gloucester? It is flat about Gloucester. Between the Gloucester township and what they call the mountains—the Gloucester "Buckets"—it is a very fine flat—fairly good land.

1830. How is it principally utilised at present? It is utilised only for grazing purposes by the A.A. Company.

A. Wilkinson.
25 May, 1898.

- A. Wilkinson. Company. Very nearly 500,000 acres of land affords employment to about only half a dozen people who look after the cattle, but if put into the market that land would support a large number of families. ^{25 May, 1893.} 1831. If there were facilities to get to market there would be numerous families there? Yes, if they could get the land.
1832. From Tinonee to Gloucester what is the country like? There are a good many farms there after you get over the Brushy Mountain, and, in fact, alongside the Brushy Mountain on one side there are settlers taking up land there.
1833. Summing up your evidence, it means that if there were better facilities, which you think would be found in railway communication, hundreds of thousands of acres that to-day are practically waste lands, only a little utilised, would be very valuable? Yes.
1834. *Mr. Black.*] Is that part of the country you have been referring to connected in trade with Maitland? Very little trade with Maitland, except in the Paterson district. The people of Dungog go down to Clarencetown, and thence by steamer to Newcastle. Further up, about Stroud, there is a trader or two, I think, in Port Stephens' Harbour, and they get out from there, and they trade with Sydney and with Newcastle. They are Newcastle steamers—small ones, I think—that go there. Farther up, on the Myall Lakes, is nearer the coast. I do not think the railway would go near there. There is a large trade done in timber. The next place is the Manning River, and the people there trade by steamer with Sydney.
1835. Then the only part that does much trade with Maitland is the Paterson, and that is only a few miles from here? Yes; the Paterson and Allen River, which runs up to the table-land of New England, about 30 miles or so, and whose trade must come here. The difficulty they labour under in trading with Maitland is the expense of the teams. When they are camping anywhere about a large town like this it is not like in the country, where you can turn them into a paddock.
1836. Under those circumstances, do you think it is likely that if a railway were constructed the trade would come this way? Certainly.
1837. But you say the market is in Sydney and Newcastle, and the produce goes to those ports by sea? Yes.
1838. Well, water-carriage being so much cheaper than land-carriage, do you think it is at all likely that if a railway were constructed it could offer rates so favourable as to take the produce away from the sea route? I think so, because they would be able to get it away quicker and surer and more frequently, particularly from north of Port Stephens. They cannot get out of the other harbours at all half of the time.
1839. But providing those harbours were so improved—the entrances improved and the channels deepened—that they could run larger vessels, and more regularly? Yes; but look at the cost.
1840. There is now before this Committee a scheme for the improvement of all those harbour entrances? One proposal is antagonistic to the other—that is certain.
1841. You think it would not be fair to ask the country to improve those harbour entrances and to construct a railway as well? It would hardly pay, I think.
1842. You think that one of the two would have to be abandoned? I should think so.
1843. That it would not pay to construct the railway merely as an alternative means of communication? I do not think it would.
1844. *Mr. Fegan.*] You know the district of Dungog very well? I have been there two or three times.
1845. What portion of the district through which it is proposed this railway should pass will give the greater amount of trade to Maitland? I think the Paterson and Dungog.
1846. What is the chief trade of Dungog with Maitland? There is not a very great direct trade with West Maitland, for this reason: That by going 15 miles or so, they can get their goods up by steamer from Newcastle to Clarencetown, and it is, I suppose, 30 miles from Clarencetown to Newcastle, and 15 to Clarencetown from Dungog by road.
1847. And there is really not so much difference as regards carriage between the rail and the water and road carriage—that is to say, you have a longer distance, and even if the railway were taken part of the way, it would not help Maitland very much? I do not know that. I think the best country would be west of the proposed line as far as I can understand it, and the trade of all that country would come to Maitland.
1848. The people are 35 miles from Maitland at Dungog, and only 15 miles from water at Clarencetown? Yes.
1849. What is the difference between freight by rail and by water? I do not know.
1850. What is the freight per ton from Newcastle to Maitland for various goods;—do you purchase many of your goods in Newcastle? Not very many, and I could not give you any idea of the rail freight. I am not in business now.
1851. Where did you buy your goods when you were in business? Sydney. They came up principally—in fact, wholly, except perhaps something that was wanted very smartly—by steamer to Morpeth.
1852. And from Morpeth you carted the goods? Yes; the cartage would be 3s. 6d. or 4s. per ton. The steamer's charge was perhaps 12s. 6d. per ton, with a liberal discount.
1853. What would you call a liberal discount? Ten per cent.; it ranged from 10 per cent. up to 50 per cent., according to the amount.
1854. Have you bought anything in Newcastle and trucked it to West Maitland? Flour.
1855. How much per ton did you pay for flour? I could not tell you.
1856. *Mr. Hassall.*] You are aware what this proposed line is estimated to cost? I heard it was a very large sum indeed. It surprised me, although I know the country is rather rough in some parts.
1857. The construction of the line from Maitland to Taree, exclusive of compensation, would amount to nearly £1,000,000;—you do not know of the difficulties that would have to be encountered, and which would necessitate the expenditure probably of £9,000 per mile in the construction of this line? I know there is some rough country between the Gloucester road and Dungog. The road from Dungog comes in about 10 or 12 miles on the Gloucester road from Stroud.
1858. Have you any idea of the traffic that would probably result from the construction of a railway into that locality? I could not say.
1859. Therefore, you could not offer any opinion as to the probable result of the traffic, or the return that might be expected from a railway constructed at a cost of something like £9,000 per mile? I have no idea. The only thing I know is that it would be a good thing for this end if we got that traffic, and it would be a growing traffic.

1860. Do you think it would be a good thing for the country if it had to pay too dearly for it? That is A. Wilkinson. another thing. I am in favour of a North Coast railway right up to the Clarence.
1861. Do you think it would be advisable to construct a railway to Taree only, and to let it stay there? ^{25 May, 1898.} No, I should not think so.
1862. Therefore, the only justification for the construction of this portion of the line would be its ultimate extension to the north? Yes.
1863. *Temporary Chairman.*] I see that the A.A. Co.'s land on this route—the "Gloucester" land as it is called—is 116,480 acres, and the railway passes through it for 52 miles;—will you be surprised when I tell you that those 116,000 acres carry only 9,273 head of cattle and 127 horses? I thought it carried very few, because the land wants clearing, and they will never clear it.
1864. Does it not strike you that the land must be very poor in its natural state if 116,000 acres carry only 9,273 head of cattle and no sheep? That is so. I have here a letter from Mr. Holmes, of Oaken-dale, which I desire to hand in to the Committee.

Carl Frederik Söiling, solicitor, West Maitland, sworn, and examined:—

1865. *Mr. Black.*] You are a resident of West Maitland? I am. C. F. Söiling.
1866. How long have you been in the district? Since 1854—since the days of my schoolboyhood. 25 May, 1898.
1867. Is there any particular point on which you wish to give evidence before the Committee? No; I was asked by His Worship the Mayor to attend here to-day, I being a frequent visitor to Clarencetown, Dungog, Paterson, Gloucester, Port Stephens, and that neighbourhood.
1868. Do you think that there will be a large amount of traffic over the proposed railway if it be constructed? That will depend very much on the length to which you extend the line; the proposal from here to Dungog, or to Gloucester, would not be sufficient.
1869. The proposal is from Maitland to Taree? That would not command a very great deal of traffic. The traffic would come in after that.
1870. Do you think that the construction of a line which ended at Taree would not bring a large amount of traffic to the main line? I do not think it would.
1871. That would be only the first link? Yes; in the extension of a very important line, in the opinion of a great many people, between here and Taree.
1872. That is to say, the 113 miles of railway would be valuable only as the first stage of a line to be afterwards constructed at much greater length? That is my opinion.
1873. If that first link is to cost nearly £1,000,000, do you think that such an expenditure—which in itself is not, according to your own idea, going to prove remunerative—is justifiable? If it went only as far as Taree and stopped there, I do not think it would be justifiable.
1874. I go further than that. I say, even if it be part of a scheme, and nearly £1,000,000 is to be expended upon a piece of railway which in itself is not likely to be remunerative, do you think the expenditure is justifiable? With a view of ultimate extension I do—as part of a scheme I do.
1875. Then your reply is that, even if this first section, at a cost of nearly £1,000,000, should not prove remunerative, or have the effect of bringing new traffic to the main railway, when viewed as part of a much larger whole that would be productive, you consider the expenditure is justifiable? Yes.
1876. In what direction can you support that opinion? First, by reason of the products that will be brought from those regions; and, secondly, by reason of the difficulty that seems always to exist with reference to communication by water.
1877. What are the products to which you refer? In the first part of the line agricultural and timber, as far as Gloucester, and occasionally stock. You have some of the best timber country to the north-west of Dungog that, I suppose, exists in the whole of Australia—comparatively speaking, virgin forests.
1878. Do you think that a railway, under any circumstances almost, can successfully compete with water-carriage? At certain times of the season, most undoubtedly, because the delays are both frequent and vexatious.
1879. But do you think that a traffic which is merely intermittent—which you have only at certain times of the season—warrants a vast expenditure of public money? Supposing that the traffic were to become regular and reliable along the line, the other, to my mind, would become less reliable. Less money would be spent upon them if they were less used.
1880. But you said at certain times of the year? As they are now.
1881. Then your answer is, that only in the beginning would the railway have an intermittent trade—that within some period after its establishment, some period which is uncertain, the sea would be less availed of, and railway traffic would be more in vogue? Information from people all along in that direction has led me to that conclusion.
1882. Side by side with this diversion of traffic from the sea to land carriage, would come about, I suppose, a development of the district? It would—there is no doubt whatever about that.
1883. The land is of a character, I understand, that invites settlement? Yes; it is of a character that invites settlement at places. The A.A. Co. constitute one of the special drawbacks at present. Land is not obtainable from them as favourably as from the Government.
1884. Under those circumstances, land being held by that company, and they not parting with it very readily, do you think it is altogether a justifiable expenditure of public money to so increase the value of that alienated property that a still more prohibitive price would be placed by them upon it? With regard to that question, I should say that when the line once gets through their property, and on to the rich lands beyond it, then the inhabitants of the coastal district anticipate a great benefit from the line.
1885. Referring again to one of your earlier replies, is one of the reasons why you think that the proposed section from Maitland to Taree will not be remunerative that it runs through this privately-owned land? That would be one of the reasons certainly—one of the reasons tending to make it less remunerative, for instance, the A.A. Co.'s terms for cutting timber are excessively higher than the terms of the Government, and once you get through on the other side the carriage becomes too expensive.
1886. Are the Government's terms too low, or are the A.A. Co.'s terms too high, or is it a little of both? The Government's terms with regard to some timbers are too high, but the A.A. Co.'s terms are very much higher.

1887.

- C. F. Sölling. 1887. Then, generally speaking, the ownership of this land by the A.A. Co. is an obstacle to the growth of the timber trade, and an interference with settlement? Yes, it is, if one compares that which has been settled under their grant with that which has been settled on the Government land adjoining it—most undoubtedly. The Government land around the borders although infinitely inferior in many respects has been taken up in many places, whereas good land on the company's estate has remained unoccupied by reason of the terms.
- 25 May, 1898. 1888. Then, inferior land owned by the Government has been readily taken up because settlement was barred on much superior privately-owned land? Yes. You say "barred." I mean barred in the way that the terms are too high.
1889. Do you know the character of the country between here and Taree? Between here and Gloucester I know it more intimately.
1890. It is an undulating country? Portion of it undulating, and some of it very rough.
1891. Intersected by water-courses to a very great degree? Yes.
1892. With a heavy rainfall? Yes.
1893. Do you not think that all these facts which you have just mentioned, as to the contour of the country and its climate, render it impossible to construct in this direction a cheap railway? I do not know that I can answer that question, except I say that for 10 or 20 miles near Dungog no light line could be constructed on account of the uneven and mountainous nature of the land; but excepting that little piece it seems to me that a light line could be constructed the whole of the way.
1894. But where so many water-courses necessitate permanent bridges and culverts, and where there is a heavy rainfall, you require ballast, or your line will be washed away? I know nothing about the expense of constructing a line.
1895. *Mr. Hassall.*] Are you aware how much of the A.A. Co.'s land the proposed line would run through? The greater part, if not the whole of their land.
1896. Can you give the Committee any idea of the relative proportion of the good country to the bad country in that estate? No, I cannot.
1897. Do you think that country 116,000 acres of which carries only in round numbers 9,000 head of cattle is suitable for closer settlement? I should not think it was suitable for closer settlement. But my answer would not convey any information at all in regard to the actual facts, for the greater portion of the rich alluvial flats round about Stroud have been alienated by the A.A. Co., and they themselves have gone away to Gloucester, where the lands are not so rich, and have taken their cattle there. For many years past the A.A. Co. have been alienating the rich alluvial flats around Stroud and right away in the direction of Gloucester, and that renders their estate less valuable for the purpose of keeping stock.
1898. They have practically alienated the better portion of their land? Yes.
1899. And retained inferior portions for themselves? To a certain extent they have done that. Immediately around Gloucester there is some good land, and they keep young stock there, and I believe their habit is annually to take them away to Liverpool Plains.
1900. Can you give the Committee any idea of the character of the country lying along the survey line running through their estate? The land they have now is chiefly poor grazing land.
1901. Mountainous in its character? In places.
1902. Practically, when 2 or 3 miles from a water-course it is all mountainous country? Between Dungog and Stroud there are some of the most mountainous and precipitous hills, from 200 feet to 400 feet in height, which until a few years ago were impracticable to any horseman or pedestrian.
1903. Then, practically, you have a large tract of country that the proposed line would traverse which is really of a very inferior character, and you would have to get towards Taree in order to get on to what you would call fairly good country? That is hardly a fair way to put it, for when you get to Gloucester you have very good grazing land, and there is also good grazing land between that and Taree.
1904. Right alongside the eastern boundary of the A.A. Co.'s estate there is a very large area of vacant Crown land; on the north of that company's estate there is an enormous area of vacant Crown land, and following the various water-courses running through this country you see a narrow strip of land which has been alienated and which is under occupation, which evidently goes to prove that the balance of the country is not suitable for settlement or otherwise, it being available for so long a time someone would have taken it up, and the question arises, do you, as a business man, think that the State would be justified in spending something like £9,000 per mile in constructing a line of railway through that country to tap the trade about Taree only? Certainly not.
1905. Then the only justification for the extension of a line through that country would be a probable extension further north in order to bring the coastal traffic down to Maitland and Newcastle, or Sydney, as the case might be? That is so.
1906. But you would have to traverse a very large area of practically poor country in order to get at the richer lands along the northern rivers? That is so.
1907. *Mr. Fegan.*] Can you describe the land from Maitland to Dungog? The land from here, 12 miles, to Paterson is rich agricultural land.
1908. What kind of country would it be to construct a railway through;—is it ridgy? I think you could get almost a level track. But from Paterson to Dungog the land is undulating, with one intersecting or dividing range called the Wollarobba Range.
1909. How far is that towards Dungog? Perhaps 10 miles from the Paterson.
1910. That makes 22 miles of almost level country? Excepting Wollarobba, there is fairly level but undulating country from Maitland to Dungog—that is, about 35 miles.
1911. Therefore, to get to Dungog, you would have only one serious range to cross? I would not call it a serious range; you can drive your buggy across it now at full trot, with the improved roads across it.
1912. Considering that distance, 35 miles, do you think that a light line could be constructed—not a line of the character represented here, costing £8,400 a mile, but a line from Maitland to Dungog of light construction which would assist the people of Dungog to bring their produce to Maitland? I am of that opinion.
1913. Do you think that £8,000 per mile would be much above the cost of this portion of the line, under those circumstances? That would be too much to pay for the construction of a light line.
1914. Could it not be constructed to Dungog, and to give the people of Dungog and neighbourhood facilities to get to market which they have not at the present time? That is my opinion.

1915. You think that the first length could be constructed to Dungog without very heavy cost? I do. C. F. Sölling. My thoughts on that matter are very much guided by what I have heard from people in the neighbourhood, and also by my own knowledge of the country; but I rely more on what people there told me with regard to these matters. 25 May, 1898.

1916. But you do not rely more on the people's opinion as to the kind of country through which the railway would be constructed? No; I know that from personal observation.

1917. *Temporary Chairman.*] The Engineer-in-Chief has divided this railway into three sections—the first being the line you are speaking of from Maitland to Dungog, and he estimates the cost of that portion of the railway at £8,440 per mile? But that is not for a light line.

1918. Can you tell the Committee what benefit is likely to accrue to Maitland and district from the construction of this railway? I think that we should have a very great deal of the trade from a considerable portion of that district centred in Maitland instead of going elsewhere.

1919. If the railway were constructed as proposed, do you think that the trade of Dungog and Stroud and Gloucester would come to Maitland? Not from Stroud and Gloucester, but from a little on this side of Dungog; a great deal of the trade for 14 or 15 miles this side of Dungog would probably come to Maitland.

1920. I suppose you have the Paterson trade at the present time? To a certain extent. A little goes by steamer down the river.

1921. Although only 12 miles from Paterson, you do not secure the whole of that trade? A steamer calls, and naturally takes some of the trade.

1922. Would not the steamer also call there if the railway were constructed? No doubt it might.

1923. And a steamer would call at Clarencetown also, and compete for the Dungog trade? Probably.

1924. Is there any degree of certainty that if this line were constructed it would capture most of the traffic between here and Dungog. Judging from the result of railways generally, I should say that a great deal of the traffic would come up the line to Maitland.

1925. The lighter portion, I suppose? I think a great deal of the heavy portion also, such as timber.

1926. If this line were constructed along its entire length, do you think that the farmers of the Manning and neighbourhood would send their timber and maize over the line when they had a seaport almost at their door? Not unless we gave them very low rates for long journeys.

1927. But the ordinary steamer freight for maize from the Manning is 10s. per ton, whereas the railway rate for maize would be about 13s. per ton;—which would be likely to capture the trade? It would come by the railway if there were only a difference of 3s. Sometimes vessels are kept waiting for several days.

Oliver Kay Young, auctioneer, West Maitland, sworn, and examined:—

1928. *Mr. Fegan.*] How long have you been in Maitland? I was born in the district, and have been here all my lifetime. O. K. Young.

1929. Where does the greater portion of your stock come from? I think that a great portion of it comes from the coast district, particularly in dry seasons. 25 May, 1898.

1930. Along the route of the proposed railway? Adjoining the route of the proposed line.

1931. You were in Court while Mr. Sölling was giving his evidence? Yes.

1932. Do you agree with what Mr. Sölling said with reference to the land? I think he was fairly correct with reference to the state of the country between Maitland and Taree. More particularly he was questioned closely with reference to the land between Maitland and Dungog, and he said there was only one very large piece of very heavy country—the Wollarobba Range—between Maitland and Dungog, and he is correct in saying that.

1933. What is the distance that the railway contractors would have to cut through that range? I think they would skirt the hill. The railway would have to pass over about 4 miles of hilly country.

1934. With the exception of that, the country is fairly level? Yes, with the exception of Wollarobba Hill the country is very level between here and Dungog, and that hill is about 4 miles across.

1935. We have been told that from Dungog to Gloucester the country is rather inferior land? Yes; that is correct. From Maitland to the Paterson it is good agricultural land.

1936. What are the chief products of that portion? Maize, lucerne, wheat, oats, barley.

1937. Do they grow much wheat? A good deal of wheat has been grown on the Paterson and the Allen Rivers; not a very great quantity of recent years, but much more has been grown, and could be grown in that district.

1938. What is the chief reason why the people gave up cultivating wheat;—was it because it does not pay as well as lucerne? No; the rust for many years attacked the wheat here, and the crops failed, and they gave up growing it, but the last two or three years wheat has grown without rust.

1939. What is the country like from the Paterson to Dungog? It is fair land, excepting the big Wollarobba Hill. It is principally grazing land along the route of the railway; but on the outskirts, from the Allen River going to the west, there is a good deal of small agricultural flats, used principally for growing maize, and now for dairying purposes.

1940. You agree with Mr. Sölling that it is very inferior land from Dungog to Gloucester? Most of it is inferior land.

1941. Do you know the land better from Gloucester to Taree? Yes. When you get to Taree, on the Manning, all the Manning flats are good, and extend back. There is good land upon the Manning, back up the Little Manning, to the Barnard River. The principal agricultural land, after you leave the Hunter, is on the Manning River. There is no land as good between the Hunter and the Manning as there is upon the flats of those two rivers.

1942. Do you think that the condition of the country at present is such as to warrant the construction of a railway which would cost something like £980,000;—do you think that the State could look for a return during the next twenty years sufficient to pay the interest on that outlay? I do not think that a section to Taree should be made if it will cost that amount of money; but it seems to me an extraordinary expenditure for that line.

1943. You would not support just an extension to Taree, with a probable termination there? No; I could not.

1944. It must be a North Coast line, I suppose? Yes, if it is anything.

O. K. Young. 1945. And under present circumstances, seeing the cost would be so great, you could not support a railway of that description? Not to say that it would be a reproductive work for the Government, for I do not think it would be.

25 May, 1898.

1946. You know that the Government are spending money in improving the entrance to the Manning River, so as to give the boats going there a better means of access? I understand that the Government are clearing the rivers, and spending money altering the bars.

1947. It is not likely that the produce would come by the railway if the Government afford the people facilities for water-carriage? It would not come from near the mouth of the river and be taken up the river (say) to Taree, and then brought in this direction by railway; but anything within reasonable distance of Taree would be brought to the railway in preference to being sent by boats.

1948. Of course, perishable goods would go by the route by which they could get to market the soonest? Yes. A large number of stock are reared and fattened between Taree and Gloucester.

1949. Maitland is the sale-yard for this portion of the North Coast district? Yes; nearly all the stock comes to Maitland, either to be sold here or to go on by rail to Sydney. Owners of stock in that locality would prefer to truck the cattle than to send it by steamer. All the stock from the Manning intended for Sydney would be trucked through.

1950. *Mr. O'Connor.*] You say there are only two difficulties in the way of this railway;—what might be the extent of the difficult country? I think there are about 4 miles of rise on the Wollarobba Hill.

1951. Would that mean tunnelling? I have not seen the sections. The railway may, perhaps, skirt the hill. The road skirts the hill right round. There is a very fine road made in the side of the hill.

1952. Is there a possibility of the railway skirting the hill? From a good road being taken round, it seems quite possible to skirt the hill with a railway. The same could be done in regard to the Monkerai Range, which is now skirted for road purposes.

1953. You think with those two exceptions the country is comparatively level? Yes; it appears at any rate to be level in riding or driving over it.

1954. *Temporary Chairman.*] Do you notice the portion marked yellow on the plan? Yes.

1955. It is waste Crown land, and that land is open for occupation now on payment of £12 per annum for 21,000 acres, and yet no one in the district thinks it worth taking up;—does that bear out your statement that this land is good for stock-raising? It looks as though it is not worth taking up when it has been lying idle. But the A. A. Company have nearly 250,000 acres of land in the Gloucester district.

Richard Windeyer Thompson, solicitor, West Maitland, sworn, and examined:—

R. W. Thompson.

25 May, 1898.

1956. *Mr. Hassall.*] How long have you resided in Maitland? Over thirty-eight years.

1957. You have some knowledge of the proposal before the Committee to construct a railway from Maitland to Taree? Yes; but it is only right to say that my attention has not been directed to the matter until just before lunch to-day for a very long time past, and I have not had time to think the matter out as I would like to do; but I will willingly give all the information I can. I should like to start by saying that if the expenditure is to be at the rate that I have heard mentioned I do not think it would be justifiable. I do not think that the return would be anything like what it ought to be for many years. If there is to be a loss of £31,000 a year, although I would like to see the railway made, I do not think its construction would be justifiable.

1958. The calculations have been made by officers of the Department, and no doubt received every consideration before being placed before the Committee, and I may say that the former estimate was considerably over £1,000,000, but a revised estimate has been made, and the estimated cost is now reduced to a little under £1,000,000. This has been done after careful consideration of the character of the country that would have to be traversed by the proposed line, and the work that would be necessary to construct such a line as would carry the probable traffic;—I presume that the officers of the Department have made themselves thoroughly acquainted with every circumstance connected with the matter, and they say that the average cost would be a little over £8,000 per mile? Yes. I see that the three sections—West Maitland to Dungog, Dungog to Gloucester, and Gloucester to Taree—will cost respectively £276,748, £299,119, and £406,416, or an average of £8,629 per mile. I have not the slightest doubt that a great benefit that would come from a line to Taree would be in increasing the value of the property of the A.A. Company to an enormous extent, because they have aggregated to themselves by far the largest area of country between Dungog and Taree. They have an immense area of country there, and I doubt very much if any outside people know how much there is of what is really good. There are thousands upon thousands of acres of good wheat land, covered now thickly with oak, scrub, and box. Through neglect in ringbarking and allowing the timber to grow, it has gradually got worse and worse, and the cattle-bearing capacity of the country has got less and less from that very fact; but there are thousands upon thousands of acres of what you may call second-class agricultural land—limestone ridges, volcanic ridges, and ordinary humus, vegetable-mould ridges; but, while the land will grow a large crop of wheat, we have always to consider the extreme humidity of the climate, and no doubt there it is worse than it is in Maitland. The rainfall there is greater than it is here, although we are nearly 20 miles from the coast. So long as we had such dry seasons as during the last three years, we could grow wheat, but if a humid season came again it would mean certain destruction of the wheat crop, and that is the reason why wheat-growing has gone out here.

1959. You heard the evidence given by Mr. Young and Mr. Sölling? I did not hear all Mr. Sölling's, but most of Mr. Young's.

1960. Have you a knowledge of the country? Yes, an exceedingly good knowledge of it. I have not only travelled along the road, but have also been on both sides of the road, very considerable distances both ways, about Gloucester and Stroud; and I have been farther up about Copeland, and also up Curricabark Creek, which runs into the Barnard River. I have been very far up the Barnard, and over the ranges to Couplicurrapa. There is one thing to be said which I have not heard either of the witnesses who have been examined allude to much, and that is the gold-bearing capacity of all that upper country. There is scarcely a range after you get past Gloucester that has not an abundance of gold-bearing reefs in it; but the difficulty of access, even by road, is so great, that the gold-bearing capacity is not made as much use of as I think it would be if a railway were there. It would entice people to that neighbourhood, I have no doubt, and would create settlement in that way; but I do not think it justifies the proposed expenditure.

expenditure. I have been over hundreds of miles of that country on foot, and have examined it carefully, and I have not the slightest doubt that there are thousands upon thousands of acres there belonging to the A.A. Company, the Church and School lands, and the Government which is gold-bearing, and would pay to be worked if the means of transit were a little easier for getting their stores and taking their quartz to batteries, and so on. I have not the slightest doubt that it would increase the value of the A.A. Company's land very much, and that would be the greatest benefit that I see. I think it would induce settlement in that way, because the company, while it is looked upon as a conservative company, has never, as far as I can judge, been averse to selling land if it could get a reasonably good price for it.

R. W.
Thompson.
25 May, 1898.

1961. Do the company lease any land at all? They lease a good deal of land in small grazing portions about Ward's River, and about Gloucester, and even about Stroud too—that is land that does not interfere with the great block of land which they keep for their own cattle-raising. In many instances the leases have been for a good time, for otherwise they would not be of much value to the people on them—they could not ringbark the timber if they had limited tenures. As regards the large area of Crown land, it is, as a rule, very wretched land—third-class grazing land. It wants an immense deal of sapping and opening up before it could be utilised. It is very thickly timbered in many instances, and the grass is exceedingly sour and poor.

1962. To put it into anything like decent order it would necessitate the expenditure of a very large sum of money? Undoubtedly, because the country is of that character that if you sap it you are bound to have an immense crop of suckers and of saplings for many years, as far as the saplings are concerned; and to take advantage of the grazing capabilities of the land you must keep both suckers and saplings down, otherwise the mischief which existed in the first instance is intensified. If the Government would let some of that land upon long leases, for agricultural purposes, it might be taken up. It is at present unoccupied, because if people want it they have to take it up upon the ordinary terms. I think that the terms should be more than twenty-one years, for you would want at least ten years to clear it, to make it anything like what it should be. It is so thickly timbered in some places that it would be some years before you could get the block timber off. It is very good timber, but very inaccessible on account of the extremely steep ranges. You would have to make roads in many directions to get the timber out; but there is some of the best timbered country there that I know, short of the other side of the Little Manning. You can see plenty of trees 70 or 80 feet high, without any branches, which people however do not cut, as they cannot get them to market, and the A.A. Company have an immense area of good timbered country. There are thousands of trees going to waste merely for want of cutting, and there is younger timber growing up still.

William Hope Mackay, grazier, West Maitland, sworn, and examined:—

1963. *Temporary Chairman.*] You are aware of the proposal before the Committee? Yes.

1964. Have you an intimate knowledge of the country between here and Taree? Yes; I travelled over it several times, many years ago.

W. H.
Mackay.
25 May, 1898.

1965. Will you say what you think of the scheme, remembering that the proposal is to construct a railway from Maitland to Taree, to cost practically £1,000,000, with land compensation;—will you tell the Committee what you think of that proposal, and also the country through which the line would go, and if you think the country is justified in spending such a large sum of money to attain that object? I certainly think, in the first instance, the line is not likely to pay. The country is only very moderate in quality, with the exception of the river flats, which are better. The grazing land, as a rule, is only second rate—some good, and some very poor. I do not think that there would be very much trouble in getting across the hilly country.

1966. There would be no trouble, but a good deal of expense; after examining the country on several occasions, and after careful revision by the Railway Construction Branch, the cost of the line was estimated as follows:—Between Maitland and Dungog, £8,440 per mile; between Dungog and Gloucester, £7,572 per mile; and between Gloucester and Taree, £9,784 per mile; and the total cost of the railway is estimated at £982,283, giving an average of £8,629 per mile,—that is, exclusive of any cost of land; that is the reduced estimate after the matter had been gone over three or four times, and the Engineer-in-Chief says that it is the lowest sum at which we could construct a line? I think that the country would be very much more improved than it is at the present if the railway were taken there; but the bulk of the land would be used for grazing purposes only.

1967. Grazing land does not produce much traffic for a railway? There is a good deal of farming on the rivers, or there would be, if there were means of getting the crops away.

1968. Fifty-two miles of the line would pass through the A.A. Company's land;—would they be likely to throw open their land and sell it cheap? I do not know whether they would throw it open; but it would be to their advantage to do so.

1969. Would they sell it cheap, or would we construct this line for their benefit? I do not know if they would sell it cheap; but the bulk or a great portion of the available land is on their property.

1970. And they would derive the principal benefit from the construction of the line? They certainly would.

1971. Do you think there would be much traffic between Dungog and Maitland if the line were constructed? No, I do not think there would be.

1972. You think that the traffic would still follow its present course down to Clarencetown? I should think the bulk of it would.

1973. Well, if there is not much prospect of traffic at this, the most populous end of the line, is there much prospect of traffic as it goes farther away to the north? I do not know anything about the country beyond the Manning River.

1974. Well, is there much prospect of traffic from the Manning River—the line competing with the river and coast steamers? I fancy that all the live stock would come this way.

1975. Does much live stock come through that country? Not a great deal; but I think there would be if the railway were made there.

1976. I gather from what you say that you think that the cost of constructing this line will be very heavy, and you see no prospect of much revenue being derived from it either in this neighbourhood or at the farther end of it? No, I do not at present.

Christopher

Christopher Eipper, journalist, West Maitland, sworn, and examined:—

- C. Eipper.
25 May, 1898.
1977. *Mr. O'Connor.*] Which paper are you connected with? I am the editor of the *Maitland Mercury*.
1978. How long have you been in Maitland? Since 1852.
1979. Do you know the route of the proposed line of railway? I do not know the route. I only know that it is between Maitland and Taree.
1980. Have you ever been over the ground yourself? No.
1981. Would you in your own way kindly give the Committee any information you can to help us to arrive at a conclusion? I have no information as regards the value of the land, nor any very accurate information as to the character of the country. I can only give you information as to the general policy of the construction of the line. I understand that the cost of the line is to be nearly £1,000,000. It seems to me that that is an expenditure which the Government would scarcely be justified in undertaking unless there were a clear view in their minds as to what their policy as regards opening up the country is to be; and also what the objective point of the railway is to be. I understand that the Government intend to continue the improvement of the bar-harbours. If they continue to improve and expend money largely on the bar-harbours, and also construct this expensive railway they will establish two competing lines of communication and that policy is scarcely a justifiable one I think. They ought to decide which method is to be employed to open up the country. Then with regard to the remunerative character of the railway, apart from any consideration about the bar-harbours, the question arises whether the railway, which will always be costly of construction, might not as well be constructed now as hereafter—whether we should wait until the country develops under a good many restraints or whether the railway should be used to develop the country—whether the railway should precede settlement or settlement should precede the railway.
1982. You would not recommend that the railway should be constructed to Taree as the terminal point; and your remarks imply that you think it should be continued to the Queensland Border? Yes; I understand that this is part of a scheme for a North Coast railway.
1983. Although we have no power to consider it; that is what is said; is there anything else you would like to say? I think that, supposing it were warrantable to construct the railway at the estimated cost, it would eventually become a very valuable asset to the country. It would tend to increase very largely the trade of the town of Maitland which is already a considerable commercial centre, and most certainly help in promoting settlement along its course.
1984. And it would also much improve the prospects of Newcastle as a great shipping port? Yes; it would carry traffic to Maitland, and through Maitland to Newcastle.
1985. *Temporary Chairman.*] I take it that your evidence means this, that you think that the State, before undertaking a work like this, should decide whether they intend to carry the produce of the North Coast by rail or to give such facilities as would enable the people to have it carried by sea? Yes.
1986. And consequently you think that if the objective point of the railway is Taree the expense is too large, whereas on the other hand, if the objective point is the Queensland Border, for a North Coast railway, the scheme is much better? I think that something more might then be said in favour of the line.
1987. And you think that the railway although it might not immediately pay would largely develop the country, and lead ultimately to results that might justify the expenditure? Yes.

Henry O'Sullivan White, licensed surveyor, West Maitland, sworn, and examined:—

- H. O'S.
White.
25 May, 1898.
1988. *Mr. Black.*] On what particular aspect of this question would you like to give information? I was a licensed surveyor for the Government for eleven years for that part of the district near Gloucester, Dungog, and the Paterson, and I know the country.
1989. You know the proposed route? As far as Bowman's Creek.
1990. Are you aware of the estimated cost of the railway? I have heard it stated while I have been sitting here.
1991. The estimate is that it will cost somewhere about £9,000 a mile—a total of £982,283; have you given such consideration to the matter as would enable you to say whether such an expenditure would be a justifiable one? The expenditure would not be justifiable in the present state of the country; but it is open to improvement, and the railway might be the cause of its being improved.
1992. Do you anticipate a betterment of present conditions? I fancy so, for there is a lot of available country which could be turned to good account.
1993. How would that be brought about? A great deal of it would be fit for agriculture.
1994. But when is that agricultural development likely to take place? If they have greater facilities for getting to market, no doubt it would take place.
1995. Then you mean that the railway is to precede, and be the cause of the development—not that the railway is to await the development? Yes. After leaving Dungog the line goes through Church and School lands for about 20 miles before it touches the A.A. Co.'s land.
1996. Of what character are those Church and School lands? Where the river Karuah is you find nice agricultural land all along that river.
1997. But it is not of very great extent, is it? The Church and School Lands Estate is 8 miles by 30.
1998. What portion of that is good land? Some of the flats on the river are $\frac{1}{2}$ a mile wide—some more and some less—and some of the ridges there are fit for agriculture. Between the Karuah and Ward's River there is what is called a black soil. It has got its name from being rich black soil which could all be cultivated.
1999. It would not require the construction of a railway to Taree to open up that part of the country? No, I do not think it would. I know nothing of the country beyond Bowman's Creek. I have never been as far as Taree.
2000. Where is Bowman's Creek? A short distance north of Gloucester.
2001. After you pass the Karuah River and Stroud, what about the land then? I know nothing about the A.A. Company's land. I have been to Stroud twice or three times only. I know the land where the road running up to Copeland crosses. The A.A. Company have some very rich land about Gloucester—very large flats there.
2002. Is there much of it? There are very large flats, similar to the flats about Singleton on the Hunter.
- 2003.

2003. A wide extent of open country? Yes; and they run up a tributary of the Gloucester to Rawdon Vale.

H. O'S.
White.

2004. Have you formed any opinion as to whether it would be desirable for the Government to construct this railway? My idea is that in the end it might turn out a success through opening up the country. I have no other reason. There is very good timber to be cut there, and most of that country is auriferous. Beginning at the Karuah, all those ranges are auriferous in a measure, and in some places patches are to be found which are very rich. I was for a time a mining surveyor, and I have some knowledge of that.

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2005. What do you think of the gold prospects there? I have known of some rich patches being found, but only a few.

John Rourke, manufacturer and importer, West Maitland, sworn, and examined:—

2006. *Mr. Fegan.*] You know the proposal before the Committee to construct a line from Maitland to Taree? Yes. The only information I can give you is, that I do a fair amount of trade with Paterson, Dungog, and Stroud. Those three places, I presume, would be served by this railway.

J. Rourke.

25 May, 1898.

2007. What business do you do? Saddlery, ironmongery, leather, and general. I have a large manufactory in West Maitland. I do a fair volume of business with those places, and I believe that we would do a great deal more if the train went there. A great deal of the trade now goes to Sydney. The means we have of getting goods to those places are so tardy that some of the people will not deal with us; but I believe that with a railway to Dungog, we should have a very large business in that way.

2008. You think that a railway would develop a much larger trade, not only in your line, but also in other lines, as regards the town of Maitland? I am certain it would.

2009. The estimated cost of constructing this line is £982,000, and the annual loss, after making a liberal allowance for traffic, is estimated at £31,000? I think that on £980,000 you would not get any interest; but perhaps a lighter line could be made. There is not the least doubt that if there were a railway a large volume of trade would come this way, and population would increase, and the country would be opened up to a great extent.

2010. It would give a better return to the railway than the estimated return? I suppose it would.

2011. There is no doubt in your mind that if this line were constructed it would be the means of settling a larger population, and will give greater facilities in connection with the town of Maitland, and therefore greater trade? Yes.

THURSDAY, 26 MAY, 1898.

[The Committee met at the Municipal Council Chambers, East Maitland, at 2 p.m.]

Present:—

FRANCIS AUGUSTUS WRIGHT, Esq. (TEMPORARY CHAIRMAN).

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

George Thomas Chambers, solicitor and ex-Mayor of East Maitland, sworn, and examined:—

2012. *Mr. Hassall.*] How long have you resided in East Maitland? Fifty-four years—I am a native of the place.

G. T.
Chambers.

2013. Have you any knowledge of the scheme before the Committee for the construction of a line from Maitland to Taree? Only what I have seen in the newspapers.

26 May, 1898.

2014. Do you know the country through which the proposed railway would pass? Nearly as far as Gloucester.

2015. Have you any idea what the effect of the construction of that line would be on trade from that part of the district to Maitland, Newcastle, or Sydney? Only under certain circumstances do I think it would affect the trade materially.

2016. Have you any idea of the estimated cost of the line? No.

2017. With regard to the character of the country which you know between here and Gloucester, would you kindly give the Committee the benefit of your information, commencing from Maitland, running out to Dungog, and from Dungog to Gloucester, following the course of the line? That is not the route that I should propose by any means.

2018. Well, with regard to the country through which the proposed line would pass, you may speak first, and then you can give information as to what you think would be a better route? Between this and the Paterson it is in a great measure pastoral country along the proposed line. At the Paterson you reach the head of navigation. Round about the Paterson there is a certain amount of agricultural country. It is very limited because the mountains come down close to the flats, and from there to Dungog, with one or two exceptions—a few selections—it is almost altogether pastoral country.

2019. And in the vicinity of Dungog? It is much the same as near the Paterson—a limited area of agricultural country surrounded by pastoral country of a sort. There are brushes and other country that does not carry much stock.

2020. Then the first-class pastoral country would be limited in area? Until you get back a bit.

2021. There is a considerable quantity of inferior grazing land? Yes.

2022. With regard to the country beyond Dungog in the direction of Stroud? It is much of the same character. There are selections on the creeks here and there, but it is much of the same character. It is pastoral country, speaking of it generally.

2023. What about the land running through the A. A. Company's estate right through to Gloucester, and from there on west? I cannot speak of the land beyond Gloucester.

2024. The country lying between Stroud and Gloucester is similar in character to the country you have already described? It is very rough from Dungog to Gloucester you may say.

2025. Scrubby in its nature? Brushy more than scrubby, with hills and valleys; and beyond Dungog there is the great Monkerai Range.

2026.

G. T.
Chambers.
26 May, 1898.

2026. Is there much settlement about Dungog? All the selectors have their little homesteads.
2027. Are there many of them? A good few, and in the neighbourhood for 7 or 8 miles out.
2028. At Dungog, and neighbourhood, there is a considerable amount of settlement on comparatively small areas? Yes; or if the area is large, a small part is agricultural and a great deal grazing-land.
2029. Does that also apply to the country and settlement about Gloucester? Yes, very much the same. At Gloucester the agricultural areas are not so large in proportion.
2030. Now, with regard to the route you say would be the better;—what would that be? I would suggest that it should commence at the termination of the present line at Morpeth, the head of the navigation on the Hunter, cross over the river at Morpeth where the bridge now crosses, and thence go along the bank of the Paterson until you come to a place called Wallalong. There you would cross the Paterson, and from that point you would be out of all flood reach. After crossing the Paterson you get to moderately high land. You would then go almost straight to Clarencetown, in a direct line, not near Seaham. There is a range there which eventually runs up to the Wollarobba Range—that is, between the Paterson and the Williams—and there is a point between Hinton and Clarencetown, going in a direct line, where you would want a short tunnel; but by following up the gully on one side, and then taking the gully on the other side, you would go almost in a straight line. Clarencetown is the head of the navigation on the Williams. You could join where the bend is above Stroud. You would then serve all the agricultural land up the Williams. The people there now send all their produce down to Clarencetown by drogher, and the railway would catch all that trade, which, if you went by the proposed route to Dungog, you would not get. After joining the proposed line beyond Stroud you follow it as surveyed as far as Gloucester.
2031. Have you any idea of the trade done up in that direction with Maitland? There is a steamer runs every day from Clarencetown to Newcastle, and I think another runs every other day from the Paterson; but the droghers take everything on the river down to Morpeth, where it is put on the Sydney steamers and is taken away by them.
2032. How far can the droghers work up the river? Right up to Paterson.
2033. Is the country at all rough between here and Dungog? Yes; there are two ranges—Little Wollarobba and Big Wollarobba.
2034. Now, with regard to the country to be traversed, and the possible trade to be obtained from that part, do you think that the State would be justified in the expenditure which would have to be incurred, amounting to something like £8,440 a mile, in constructing a line of railway (say) to Dungog? No; I certainly do not think so, because the river traffic would interfere with you so much.
2035. Under any circumstances, the river traffic would compete with the railway traffic? Yes; and coming from Dungog you would lose the produce of all the agricultural area, which is fairly considerable, between Clarencetown and Dungog, because that would go to Clarencetown for water carriage, instead of going back to Dungog to be put on the railway there.
2036. Practically, Clarencetown is a better point for that traffic to go to than Dungog? Yes.
2037. The only traffic that you could expect to come in there would be from the settlement north-west of Dungog, following the course of the Williams River? Yes; and the farther you go the less agriculture there is after you get to Underbank, which is a cattle station.
2038. Practically cultivation ceases there? Quite.
2039. And the ranges run pretty close to the water? Down to the river. There are thirty crossings, I think, over that river. You keep crossing at point after point. I think there are thirty crossing-places between Dungog and Underbank, although I have never counted them.
2040. The matter narrows itself down to this, that the agricultural portion of the country about Dungog, following the course of the river, gradually becomes smaller until it finally runs out altogether? Yes.
2041. And the balance of the country is rocky ranges—scrub which might be suitable, I suppose, for cattle? Yes; very good for that.
2042. But for nothing else, you think? For nothing else.
2043. Do you think, if there were a possibility of constructing the lines at a cost of £2,000 or £3,000 a mile, the expenditure would be justified? I doubt it.
2044. Considering the opposition that would have to be encountered from water-carriage, you do not think the expenditure would be justified? No; I do not. The only way to make the line at all payable would be to connect the heads of navigation with railway communication. By that means, if there were a desire to get quickly to market, instead of sending the produce by river to Newcastle, it could be put on the train and sent. Butter and lots of things I could mention would be sent by train instead of by steamer as at present.
2045. Are there any other points you would like to bring out? No.
2046. You have pretty well stated the case from your point of view? Yes. I do not think that between this and Dungog the present proposed line would pay in the smallest degree—that interest on the capital outlay would never be obtained, or anything like it.
2047. You do not think that the traffic would justify the construction of the line? No; and I think that the portion of the line between Dungog and Gloucester is worse.
2048. From your knowledge of the country, you can practically corroborate the estimate of the Railway Construction Department, who say that they would expect, if the railway were constructed to Taree, there would be an annual loss of over £30,000? I think so. I am certain the line between Dungog and Gloucester would be a dead loss. It would go through fearful country—much worse than the country between here and Dungog; and it would be a very expensive line, on account of the character of the country that it would go through—it is very rough.
2049. *Temporary Chairman.*] You say that there is only a limited agricultural area near the Williams and the Paterson Rivers? Above the Paterson, and round about the neighbourhood of Paterson township.
2050. Is there much dairying done in the district? It is increasing up the Paterson.
2051. Is Newcastle the market for the sale of their produce? Yes; they send it down to Paterson, and it goes thence by steamer to Ireland's at Newcastle.
2052. Do you think that the whole of the products grown in the district around about Dungog and Clarencetown is consumed by the large population round Newcastle? Not solely, because Ireland exports. He has a large butter factory.
2053. At all events, its consumption takes place there in some degree? There is some consumption, but nothing like all the local produce is consumed in Newcastle; there is a great deal more produce than is consumed there.

2054. A portion of it finds its way, I suppose, to Sydney? Yes; quantities of it—not of milk or cream. None of the dairy produce goes to Sydney, except in the form of butter.

2055. So, in the event of the railway being constructed, there would practically be two markets for this district, a portion of the produce going by river to Newcastle for local consumption there, and possibly some going direct by rail to Sydney? Yes; or direct by rail to Newcastle.

2056. *Mr. Black.*] You have said that butter and lots of other products you could name would be sent to Sydney by rail;—what are the other products? Calves would go that way, and also fowls and ducks, and anything perishable—such as fruit and vegetables. I do not suppose that corn or anything of that sort, or green feed, would go that way.

2057. You do not think that they would send vegetables all that distance by train, do you? If you catch the market they are very valuable. If you can get cucumbers in before anybody else you can get your price for them.

2058. *Temporary Chairman.*] Does the district produce much fruit? Yes; there is a great number of oranges grown. The country is more fit for oranges than anything else in the way of fruit.

2059. The principal product of Dungog is timber, is it not? At present; but it is getting less every day.

2060. And that would go by water under any circumstances? Yes; unless it were carried to some local saw-mill, it would go by water to be cut up in Sydney, or it might even go after being cut up. In Maitland we get timber from near Gosford which is brought up by rail to be cut up by the mills here.

FRIDAY, 27 MAY, 1898.

[The Committee met at Paterson, at 11:30 a.m.]

Present:—

FRANCIS AUGUSTUS WRIGHT, Esq. (TEMPORARY CHAIRMAN).	
The Hon. DANIEL O'CONNOR.	THOMAS HENRY HASSALL, Esq.
JOHN LIONEL FEGAN, Esq.	GEORGE BLACK, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Theophilus Cooper, pastoralist, Gostwyck, Paterson, sworn, and examined:—

2061. *Mr. O'Connor.*] How long have you lived in this district? Between twelve and thirteen years.

2062. Do you know anything of the proposed route of this railway? Not beyond Dungog.

2063. You know it up to Dungog? Yes.

2064. Would you kindly tell the Committee in your own way the character of the country from Maitland to Dungog? The character of the country from Paterson to Dungog is undulating. I do not think there are any serious engineering difficulties. The largest range between here and Dungog is Wollorobba, situated about 6 or 7 miles from here.

2065. What is the extent of that range? I suppose that from the foot of the range to the other side it is about 2 miles.

2066. Would it be possible to take the railway along the outskirts without tunnelling? I fancy that by making a slight deviation there would be no occasion to tunnel whatever.

2067. What do you think of the proposal to construct this line? I think that if we construct a railway for a moderate amount it will be very beneficial to the country further on, but certainly it would not benefit the people on the Paterson one jot. We have river communication up as far as here, and we can get our goods from Newcastle for about one-fourth or one-fifth of what you could afford to carry them by rail for.

2068. You get your goods by water carriage? Yes, from Newcastle or Morpeth. I think we can get them up at about 4s. a ton, and I understand that you could not carry them by rail under £1.

2069. Have you any idea of the estimated cost of constructing a line from Maitland to Taree? I cannot speak of anything beyond Dungog.

2070. It is estimated that it would cost £9,000 a mile at least? My candid and firm opinion is that it might be constructed for one-third of that amount, so far as Dungog is concerned. I travelled many years ago along this route, and although there may be very great difficulties there I do not see why there should be.

2071. If it cost £1,000,000 to construct a railway to Taree, do you think it would be a good speculation in the interests of the country? No, I do not. I think it would be paying a lot for very little advantage.

2072. Then, knowing as you do this country very well, you could not advise the expenditure of so large a sum of money for a railway to Dungog? I certainly could not.

2073. What is the nature of the country between here and Dungog, say, for 10 or 15 miles on either side of the proposed line? It is all undulating country and grazing country. Along the river it is just as it is here, nice flats and agricultural land, but I cannot see where the produce will come from to pay the expense of the railway with the slightest chance of profit.

2074. It is 33 miles from Maitland to Dungog? Yes.

2075. Even supposing that the time came when you could construct a railway for (say) £5,000 a mile, would you think that justifiable? I consider nothing over £3,000 a mile will be justifiable under present circumstances. In Queensland they construct railways for £2,000 a mile. If we could construct a railway for about £3,000 a mile, then I should say do it by all means. That is all we want in this district. There would never be any heavy produce carried except grain, and a light line of railway would answer every purpose; and I believe it ought to be constructed for about £3,000 a mile.

2076. You think it could be constructed for about £3,000 per mile from here to Dungog? Decidedly so.

2077. *Temporary Chairman.*] This is a very old settled district, is it not? Yes; one of the oldest in the Colony, I suppose.

2078. How is the land principally held? Principally freehold, I think.

2079. Do most of the farms we saw on the river belong to freeholders? I do not think that where you came along there are any but freeholders. There may be some selectors further back.

2080. Is much of the country held in large estates and as tenant farms? There is the Tocal property which you passed through. I think that is about 10,000 acres.

2081. Are there many tenants on that estate? No; it is held by the Reynolds family.

2082. They utilise it themselves? Yes. 2083.

G. T.
Chambers.
26 May, 1898.

T. Cooper.
27 May, 1898.

- T. Cooper.
27 May, 1898.
2083. All the holdings we saw along the road are freeholds? Yes, all of them.
2084. This railway is divided into three sections: from Maitland to Dungog is to cost £276,748, or an average of £8,440 a mile; from Dungog to Gloucester the estimate is £299,000, or £7,572 per mile; from Gloucester to Taree the estimate is £406,416, or £9,784 per mile; while the total estimated cost of the line is £982,283, or an average of £8,629 per mile; you say you think that a railway could be constructed from Maitland to Dungog for £3,000 per mile? Yes, a light line.
2085. This estimate was prepared by the Engineer-in-Chief for Railway Construction, and it is not the first or second, but a revised estimate, and he assures us as a professional man on his oath that he cannot construct a railway on a lower estimate than that? Well, I am not a professional man; it is only my private opinion, but I consider that a light line of railway might be constructed from Maitland to Dungog for £3,000 a mile.
2086. Supposing that a railway were constructed, is there any justification for believing that it would get traffic enough to pay its expenses? So far as Dungog is concerned, I doubt that even.
2087. From what you say about this district, I gather that your means of transit are by river, and will be by river no matter what other facilities may be offered? Yes; Dungog is only 14 miles from Clarencetown, to which place steamers run.
2088. And in all probability, if a railway were constructed to Dungog, the bulk of the freight would still go by steamer? Yes, of course. Farmers would not pay three times as much for the carriage of their produce in order to send it by railway.
2089. You are acquainted only with the district between Maitland and Dungog? Yes.
2090. And your impression is, that were a railway constructed between those two points, it would not capture the traffic, and would not pay? It would not pay. It could not capture the traffic. We have a steamer almost to our door. The Dungog people have a steamer to Clarencetown, which is only 14 miles from Dungog. It is preposterous to suppose that people would send their produce by rail for £1 instead of by water carriage for 4s., and the passenger traffic would be very trifling.
2091. As an old resident of the district, who knows a good deal about it, you are under the impression that a railway is not wanted, and that if constructed it would not pay? That is my firm conviction.

Ebenezer Doust, retired civil servant, Paterson, sworn, and examined:—

- E. Doust.
27 May, 1898.
2092. *Temporary Chairman.*] Have you resided long in this district? I have been here twenty-two years.
2093. You know the proposal before the Committee to construct a railway from Maitland, *via* Paterson, Dungog, and Gloucester, to the Manning River? Yes.
2094. This railway is estimated to cost £982,000 for the total distance, and £276,000, or £8,440 per mile, between West Maitland and Dungog; do you think there is anything in the district to justify that expenditure of public money? I was a resident on the Manning for twenty years before I came here.
2095. First take the district between Maitland and Dungog? I question whether the railway would pay expenses between Maitland and Dungog; but I believe that if it were taken through to the Manning it would at all events pay interest on the capital outlay.
2096. You formerly resided on the Manning? Yes; and I have been there twice since I left, and that district has gone along by bounds and strides.
2097. What traffic do you think the railway would secure from the Manning River to Newcastle or to Sydney? I believe that the passenger traffic alone would amount to about £50 per week. I judge from the papers. I get the Manning paper, and I see what a number of passengers the steamers have. I believe that the railway would average quite £50 a week for passengers alone.
2098. Anything else? Then there is an immense cargo of things, such as eggs and poultry, which they would never send by steamer, provided they had railway communication.
2099. The coaching traffic is put down by the railway authorities at £6,000 per annum, which is much more than £50 per week? Yes.
2100. Yet this railway shows an annual loss of £31,000 although the Traffic Manager puts down the coaching traffic at double what you say? I only judge from the papers that I see every week.
2101. In view of the estimate prepared by the Railway Department, showing an annual loss to the taxpayers of New South Wales of £31,000, do you think that there is anything to justify the construction of this railway? Of course, I suppose that that loss is only a matter of conjecture.
2102. The railway officials have visited the district and inspected the books of the various steamship companies. They know the estimated receipts for mails. They know the freight charged by the steamers for the conveyance of butter, poultry, eggs, pigs, live stock, maize, &c., and after making the fullest possible allowance for everything that the railway would be likely to carry, they say that there would be an annual loss of £31,000 on the line? That, certainly, is a great loss.
2103. The cost of construction amounts to nearly £1,000,000, and interest would have to be paid on that, and also the working expenses of the line;—in face of the information that I have supplied to you, would you, as a taxpayer of New South Wales, recommend the construction of this railway? No; I could not do so in the face of such a loss as that; but, as there is a line to the southward, I think that if it were possible to get a north-coast line it would be a good thing.
2104. You think that the exigencies of the country demand a North Coast railway? I think they are entitled to it.
2105. You mean a railway right through, connecting with Queensland? Yes; I think that if it connected there it would, perhaps, pay interest at all events.
2106. But what effect would it have on the existing line, do you think? I do not think it would make much difference to that.
2107. You do not think it would draw traffic away from that? It might to some extent, but not much.
2108. It would not draw the local traffic, but through passenger traffic? Yes. Of course, they would not send heavy cargo by the railway if they could get it carried so much more cheaply by water—maize, hay, and that kind of thing.
2109. The Manning River people would be in the same position as you are in here;—you would use the line for light goods and passengers, but the heavy goods you would send down the Paterson River by the steamer? Yes. I could not recommend the construction of the proposed line in view of such a heavy loss as that which is anticipated.

Edward John Cann, storekeeper, Paterson, sworn, and examined:—

2110. *Mr. Black.*] How long have you been a resident in this district? Twenty-five years, but our business has been carried on here for thirty-seven years. E. J. Cann.
2111. Continuously in this town? Yes; and in a smaller town further up in the district. 27 May, 1898.
2112. You have a branch store there? Yes—at Vacy.
2113. Do you get your goods by water from Newcastle? Yes; Newcastle and Sydney.
2114. How much per ton do they charge you for carriage? Ordinary heavy goods, such as iron or flour, we have paid 7s. 6d. for from Sydney, and 3s. 9d. to 4s. from Newcastle. For measurement goods the charge is about 10s. per ton from Sydney, and half that rate from Newcastle.
2115. I suppose you deal in the produce of the district? Yes; we buy three parts of it, I suppose, and that is leaving out dairy produce.
2116. You buy the corn? Yes; we buy maize and wheat.
2117. Any timber? No timber; there is not any timber except hardwood.
2118. To what market is that sent? Sydney and Newcastle.
2119. By water? Yes.
2120. What do you buy besides corn? Eggs, poultry, and all sorts of grain.
2121. How much per ton does it cost you to send your maize to Sydney? Seven shillings and sixpence.
2122. Half that to Newcastle? Yes.
2123. Fowls per crate? It does not matter how many pairs we put in a crate, but it costs us 4d. to send a pair of fowls to Sydney, and half that to Newcastle.
2124. Supposing that a railway were constructed in this direction, do you think that you would be able to make use of it at rates in any way resembling those? Certainly not.
2125. And you would not be likely, as a rule, to use the railway? Supposing that the railway entered into competition with the river we should feel it our duty to support the river boats.
2126. Have you any particular reason for that? Yes; looking at the other towns in the northern district, we, from a storekeeper's point of view, believe that this railway communication would do us more harm than good.
2127. Then you are not in favour of the construction of this railway? Certainly not.
2128. No matter what it might cost? No.
2129. Do you know of any widespread heart-devouring desire on the part of the inhabitants of the district for a railway? I think I can speak very well for the majority of the people, and say that they certainly are against the proposed line.
2130. There has been no agitation for a railway? No; when some gentleman has been putting up for Parliament, he may have been asked a question upon the matter, but the people seem to take no interest in it. Their idea of it is, that it is never likely to come here.
2131. Do you ever by any chance get any goods from Maitland? Very rarely.
2132. When you do, what does carriage cost you per ton? The Maitland merchants ship at Morpeth, and you can reckon one-quarter of the Sydney freight for carriage from Morpeth to Paterson.
2133. *Temporary Chairman.*] This railway from Maitland to Taree is estimated to cost £982,000, or nearly £600,000 between Maitland and Gloucester;—do you, as an old resident of the district, think that it will be unwise, in the interest of the country, to expend so much money in constructing the railway? I do not believe that it would be a good thing at all to construct the railway.
2134. You do not think that the State would be justified in spending nearly £1,000,000 to connect Taree with Sydney by rail? No.

SATURDAY, 28 MAY, 1898.

[The Committee met at the Municipal Council Chambers, Dungog, at 10 a.m.]

Present:—

FRANCIS AUGUSTUS WRIGHT, Esq. (TEMPORARY CHAIRMAN).

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

George Studdert Waller, grazier and dairyman, Wollarobba, Dungog, sworn, and examined:—

2135. *Mr. Hassall.*] Have you resided long in this district? I have known this district since 1853. G. S. Waller.
2136. What area of country have you? 5,000 acres. 28 May, 1898.
2137. What is it principally devoted to? Fattening cattle, dairying, and farming generally.
2138. What area have you under cultivation? Altogether about 300 acres, because I have some tenants.
2139. Where do you send your produce to? We send a great deal of it to Sydney.
2140. In what way? We send fat cattle to Maitland, and sometimes to Sydney when the market suits us.
2141. And your other produce? We send our other produce to Maitland and Sydney.
2142. How do you send it? By drays to Maitland—I mean the farm produce. We send our cream to the factory in this town, but other produce and the fat stock we send to Maitland, and on to Sydney sometimes by rail.
2143. With regard to this proposal to construct a railway from West Maitland to Taree, have you a particular knowledge of the country through which the railway would pass? A superficial knowledge of the country after leaving here.
2144. Will you tell us what you know about it? In my opinion the country is first-class. My reasons for saying so are the good average and regularity of the rainfall, and because the land is good, and it is permanently watered. I think the country will improve very much indeed, and it will carry a very large population.
2145. What is the principal form of occupation now? Dairying and farming generally. They are principally small holders.
2146. With regard to the country held by the A.A. Company, have you any knowledge of that? I have a very good knowledge of it.

G. S. Waller. 2147. What sort of country is it? My impression for many years has been that when a railway went through, the A. A. Company, like every other individual, would find it to their interest to throw their land open. It is not what we would call a paying property at present, and if a railway went through, they would do as others have done under similar circumstances, and would cut it up into blocks and dispose of it.

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2148. That would be making their property valuable at the expense of the general public? Yes; it may be taken in that way.

2149. Do you not think that the Government might resume the land, and get the benefit of it for themselves? Quite so.

2150. Do you know the taxable value of their land? No, I do not; but I believe that they have sold blocks at £2 an acre—that is, alluvial land, agricultural land, and grazing land.

2151. Do you know the length of the country held by them which this proposed railway would traverse? Not exactly, but it is considerable.

2152. It is about 52 miles? I suppose it would be something like that.

2153. With regard to the trade round Dungog, have you any idea what trade is carried on, or the extent of it? About fourteen or fifteen years ago there was an agitation, and I prepared some statistics then; but I was told it was useless to do so on the present occasion, because you were so well furnished with all statistical information, and all I can give you now is general information as to the district.

2154. Will you give the Committee your reason for thinking that a railway should be constructed, or why it should not be? Before I do that I should like to show you a little plan that, through the courtesy of the District Surveyor, was prepared for me. It shows the area of land between here and the Paterson which would be served by this railway. I produce a map, the tinted portion of which shows the land that will be served by a railway between Paterson and Dungog. Starting at the Paterson, and following the Dividing Range practically between the waters of the Paterson and the Hunter Rivers, and running to the head of the Paterson River, and then embracing the country lying between the Paterson and the Williams, running back to Dungog, and the intervening country, of course, between Dungog and Paterson, would be served by the proposed railway. The alienated land within the watershed of the Williams and the Paterson Rivers on the north-west of the trial survey line amounts to 230,356 acres. The unalienated—that is, Crown land—between the trial survey line and a line parallel thereto amounts to 186,000 acres, going 2 miles south of the proposed line, which would embrace the country that would be served by the railway; whilst along the proposed line, within 2 miles of it, there are 257,032 acres of alienated and 5,243 acres of unalienated land; making altogether 448,000 acres to be served by the proposed railway.

2155. That is alienated and unalienated land? Yes; the alienated land amounts to about 256,000 and the unalienated land to about 191,000, the total area being 448,000 acres. We have no black-soil plains; but from my knowledge of the country I should say that it is one of the most fertile spots in New South Wales, for many reasons. It is watered by the Williams River, the Allen River, the Paterson River, the Chichester River, and the Little River, as well as by numerous creeks running into those water-courses. From my knowledge of this country I have no hesitation in saying that the greater portion of it will be settled upon. It is not to be supposed that because all that land is unoccupied now it is useless land. There is no access to market from it now. The encouragement is not sufficient, and people are slow to go on to the land. Strangers will not come here. People now here will take up land they want; but strangers will not come, because the facilities are not sufficient. I had five farms to let; but I could not get tenants for them, because there were not sufficient facilities to get the produce to market. I have no hesitation in saying that with railway facilities the greater part of the present unoccupied land will be utilised for agricultural purposes and for dairying.

2156. What do you grow here principally? Corn, wheat, barley, oats, vegetables of all kinds, wine, and fruit. This district is noted for its oranges. I do not know anything that will not grow here except sugar. The district has been noted for tobacco, but of late years, owing to the excise duty, the people have not gone into that industry much, and there is less tobacco grown here than there was at one time. Compared with the western or north-western portion of the country and with the Riverina, this district does not suffer from drought; in fact, I may say that it is well watered, and has an ample rainfall. I think that if we had railway facilities the land here would be taken up in small holdings by dairymen, and *bona-fide* farmers. My opinion is that it would carry about 400 families with 500 acres each—I mean the unalienated land. In dry seasons numbers of stock are brought to this country from Singleton and other places for refuge. Something like 8,000 head of cattle were brought last year to this district for that purpose, and in times of drought I think that cattle might be trained to Maitland, and then brought by rail from Maitland into the district, more particularly between here and Gloucester. Along the coast the grass is permanent, and I cannot understand why it should not pay people to send their stock to this coast district for they would do well here, at any rate for a few months. The timber is very fine on the Crown lands, and there is also a good deal of it on the private lands. People have been cutting timber in this district for a very long time and sending it to New Zealand, but there is still a great deal of old timber on the unalienated lands.

2157. After the most careful consideration, and a large reduction of the former estimate of the cost of construction, the officers of the Railway Construction Branch say that a line between West Maitland and Dungog could not be constructed for less than £8,000 per mile; as a citizen of the State, would you be prepared to enter into a speculation of that kind, and have to bear your share of the loss of £30,000 a year, which it is estimated would accrue from the working of the proposed railway? If Dungog would have to be the terminus, I should pooh-pooh the idea at once but with my knowledge of the North Coast I should say that the conditions are much better further north.

2158. Would the matter resolve itself into this, that you do not think that the Government would be justified in putting the country to the expense of constructing a railway from West Maitland to Dungog, and letting it stop there? Certainly not.

2159. You think that in order to make the line a payable one, and of national benefit it would be necessary to extend it into the North Coast district? Quite so. On no other condition would I advocate the construction of the line.

2160. *Mr. Fegan.*] You say that you had five farms to let, and could not get any tenants? Yes.

2161. And the chief reason was that there were not sufficient facilities here to get the produce to market? Yes.

2162. Did the applicants for those farms find any fault with the land? No; but their first question was how far was it from the railway, and when I told them that we were not served at all by railway I heard no more about the matter. G. S. Waller.
28 May, 1898.
2163. You think you are badly served here so far as means of communication are concerned? I do. Some of us are practically without a steam-service, for we have 15 miles to go to it.
2164. Can you send produce by the Williams River? We can.
2165. How far are you from the point of navigation? 14 miles.
2166. Can you send produce by the Paterson? We can send farm produce.
2167. How far are you from that river? 12 miles.
2168. Considering that you are only 12 miles from one river and 14 miles from another, and that river-carriage as a rule is much cheaper than railway-carriage, do you think there would be any possibility of the proposed railway getting sufficient produce to carry to make it pay? Well, the steam-service is not considered sufficient. There are serious objections to it.
2169. What are the objections? That it is uncertain in bad weather, and that you cannot get to market as quickly as you otherwise could. I always send my cattle to Sydney by the railway. I drive them to Maitland, 25 miles, and train them from there.
2170. Have you ever got goods from Maitland or Newcastle by road? We get our goods from Maitland.
2171. What is the road-carriage? We have our own teams.
2172. If you had to hire teams from other persons, what would the cost be per ton? It would cost me about 15s. a ton at the very least.
2173. That would be for 24 miles? Yes.
2174. How far are you from the Paterson? 12 miles.
2175. And how far from Clarencetown, on the Williams River? About 14 miles.
2176. What would it cost you by boat? I forget what the charges are, but I look upon their charges generally as heavy. People are not at all satisfied with the charges, nor with the treatment that produce receives going that way.
2177. If you have been living so long in the district you must have an idea what the water-carriage would cost you? There are gentlemen living in this town who send produce direct by steamer who would be better able to give you that evidence. I have not used the Williams River Company's boats for a considerable time.
2178. Is the river Williams' boat the boat you generally trade with? It is the one I have been trading with, but, as I say, I preferred latterly to send direct to Maitland by dray and thence by rail to Sydney. I have not used the boats for some time, either on the Williams or on the Paterson. I have had property shamefully treated on the boats. I do not know how it occurred.
2179. Do you send a lot of cream down? I did, but I have not since the factory has been started. I have a separator on my own land, and there is a butter factory in this town. We send them cream to make into butter. The dairying industry is a very progressive one here. I have no hesitation in saying that within the next five years it will more than double itself. The boats now plying on the rivers are small and useless for the purpose of forwarding perishable goods like butter to market.
2180. What does it cost you to send your cream to Dungog? It costs me about 1s. 6d. a can for that short distance. I have paid 1s. a can to take it even 12 miles. Sending the cream away is a very expensive item. It costs me 2s. 6d. a can to send it by boat to Newcastle, whereas I could get it taken from Maitland to Sydney for a little over 2s.
2181. It costs you 1s. 6d. to send your cream to Dungog? Yes.
2182. Considering the distance, that is much dearer than sending it the other way? Well, I get better terms here.
2183. It is simply a matter of £ s. d.? Yes.
2184. You said that your country is good fattening country? Fairly good; not as good as the western or north-western country.
2185. How many head do you fatten? I can fatten one beast to 6 acres, generally speaking.
2186. How many do you fatten yearly? I have fattened 600, but I do not do that every year.
2187. On the average, how many? I fatten, I think, about 300, now that I carry on the dairying.
2188. What is your acreage? 5,000 acres. I fatten 300 head, but I have some calves, and I have a dairy of 100 cows.
2189. What do you let out to tenants—500 acres each? No; they have nothing like 500 acres each.
2190. How many acres are there in the farms you have let? About 150 acres each, but the land is very good.
2191. Do you think that is enough to keep a family? I think they do well and comfortably on it; it is very good choice land.
2192. How many acres have you yourself for dairy purposes? We fatten at least 300 head, or an average of 400, and milk 100 cows.
2193. So there are about 1,600 acres used for dairying purposes? Yes; I suppose so.
2194. How many acres have you under wheat? We have not grown any wheat for some years, but we are growing wheat this year.
2195. Did you ever grow wheat? I have grown wheat. On the poorest of the land that I have, about forty years ago, I grew an average of 25 bushels to the acre.
2196. What is your fat stock worth now? I would not like to sell a good bullock for less than £5. I have a few now that I would not like to sell for £4 or £5.
2197. Why did you give up wheat cultivation? I was induced to do so, but I think I made a mistake.
2198. If you can grow 25 bushels to the acre on the poorest land, and it takes 6 acres to a head of cattle, and your statement makes it 16, do you not think that you are losing a lot of money by putting cattle upon it instead of wheat? I think I have done so. I think it would pay better to grow wheat and oats. There is a certain amount of bother about the thing, but, no doubt, it is very remunerative.
2199. Taking 25 bushels to the acre at 3s. a bushel would make £22 10s.? I know I have made a mistake in discontinuing wheat-growing, but I have recently sent to the Wagga Experimental Farm for seed wheat, and I am planting it now.
2200. How many acres have you under wheat now? I hope to get in 30 or 40 acres for my own use.

- G. S. Waller. 2201. All your land is cleared? It is ringbarked.
- 28 May, 1898. 2202. What would it cost per acre to clear, plough, sow, and crop? I can get it stumped and burnt off for less than £1 an acre.
2203. What would it cost to clear your land, grub it, and burn it off? About 12s. an acre, for the wood has been dead a long time and will burn off easily.
2204. How many acres can you plough in a day? With a good pair of horses they can plough an acre a day easily with a light single plough; you cannot work with more than a double-furrowed plough here.
2205. That would make 2 acres a day ploughed? Yes.
2206. Do you not think that you could use more than a double-furrowed plough on this land? On portions of it you could, but I do not think it would be profitable to do it. I am satisfied that we in this district are fifty years behind the times in our mode of cultivation.
2207. The appearance of the rust did not make you put your land to purposes other than wheat-growing? No. It was more the fuss and bother than anything else. I have to employ labour to do most of the work, but I am satisfied that wheat-growing will pay better than using the land for stock, even if you get only 20 bushels to the acre, for that leaves a good margin.
2208. Putting land under cultivation instead of stocking it would find employment for a large number of people? Yes.
2209. And according to your estimate, if you were to have 1,000 acres under wheat at the present time it would pay you at 4s. 6d. a bushel, which is the present selling price? Yes; and it would pay even at 3s.
2210. And you think that in the very near future a larger portion of this district will be put under wheat-cultivation? Under crops of all kinds. The people have been living off and on the land so to speak. They have not paid sufficient attention to it, and made themselves at home on the land, as they are inclined now to do; the people are becoming alive to the fact that it is not merely having the land but using it which makes it pay.
2211. Do you think that the construction of the proposed railway would give greater facilities to open up the country and put it under agriculture instead of using it for grazing purposes? The cost of carriage is the great question with a man who produces anything.
2212. And the market price? Being able to hit the market. I have sent produce by the Clarencetown boats to what I thought was a good market, but when it got there the market had gone down considerably. The produce was not exactly unsaleable, but I lost heavily on several occasions by not getting to the market at the proper time. I would prefer to pay a little more to make a certainty of getting to the market when I want to do so.
2213. Might there not be a possibility if the proposed railway were constructed that the people would use the boats to beat down the railway freights? I think they would be more inclined to use that which would benefit them most.
2214. But that is the usual custom, is it not? It may be where the boat service is good and reliable, and right to the door, but there is a long and expensive carriage to Clarencetown.
2215. Considering the enormous cost of construction, and that the estimate of traffic receipts is only £18,000 per annum, and the estimated annual expenses and interest amount to £49,000, leaving a deficiency of £31,000 per annum, do you think you could support a line showing that annual loss? I think I am justified in looking to the future. What about all the unalienated land; and that is only the commencement in this district.
2216. You speak about the future of this district, but how will that get rid of the £31,000 annual loss? There is this district to begin with, and then I think there is a great future before the North Coast; in fact, I do not think that, as a sane man, I am exaggerating when I say that there is an immense future before it, because a railway is always such an attraction that the advantages of it encourage new people to settle on the land. The people here now are all old hands, who have been here for some years.
2217. This district is not going ahead? I do not think that there is a more solvent place in New South Wales.
2218. There are no new hands coming into the district? No; that is the disadvantage. There is not sufficient attraction for them.
2219. You can support the construction of this line, realising that the loss will be £31,000 a year? Yes; at the start.
2220. That is only to Taree? Yes.
2221. Do you think the terminus should be at Taree? No. I know that the people on the Macleay want a railway very badly indeed. They would much prefer it, although they have fine steamers there. There is great dissatisfaction there now.
2222. *Mr. O'Connor.*] If the proposed railway were constructed you think not only that the Crown lands would be taken up, but also that a large portion of the land that is already in the hands of private owners would be utilised to a much greater extent than at present? Yes; I feel certain of it.
2223. That being done, of course the produce from that land would help to lessen the loss on the cost of construction? Yes.
2224. *Temporary Chairman.*] You are a grazier and a farmer? Yes.
2225. Do you assure the Committee that the land in this district is first class agricultural land or good grazing land? The land fit for agriculture is as good as anything of the same extent in the Colony.
2226. What part of it—on the river banks? The river and some of the large flats on the creeks, and out from the river it is tip top land.
2227. Is the country we went over yesterday a fair sample of the rest of the country? No; that is a cross-country track.
2228. As a grazier, would you not call that as bad a piece of grazing country as you could see? Yes; but the country is very good in the valley. You crossed the poorest piece of country I believe in the whole district.
2229. As a grazier and farmer can you conscientiously tell the Committee that the bulk of the land in this district is good for any purpose? Yes, decidedly. I say that without fear of contradiction. It is not equal to the north-west nor to the Darling, nor even to the Riverina for fattening purposes, but it will fatten very well. We have sent cattle from here up the Northern line to Tamworth many times in droughts. They have been sent to Maitland, bought there, and sent up the line to Tamworth in dry times.
2230. Do you know the country between Gloucester and Taree? I cannot say very much about it.
2231. The railway would pass through 52 miles of the A. A. Co.'s ground? I believe so. 2232.

2232. And we are told that the land from Gloucester for some distance is the best of their land? Yes. G. S. Waller.
 2232½. Would you be surprised to hear that 116,000 acres of the company's land carry only 8,000 head of stock, or one beast to 15 acres on the best of their land? I have no hesitation in saying that the A. A. Company's estate is not managed at all. 28 May, 1898.
2233. You mean that they do not carry the stock that they should carry? They do not make anything out of it.
2234. This railway is divided into three sections—Maitland to Dungog, to cost £276,748, or £8,440 a mile; Dungog to Gloucester, £299,119, or £7,572 a mile; Gloucester to Taree, £406,416, or £9,784 a mile;—the total cost of the entire line, exclusive of land compensation, is estimated at £982,283; the Traffic Manager, in his estimate of the traffic, says that he has made the most liberal allowance for everything; he has ascertained the freight carried by the steamers, and the total production of the district, and has added a very large percentage on to it, and he estimates that the total traffic that the railway would secure would amount to £18,010, while the total annual cost would be £49,468; Mr. Harper, who has had a long experience in compiling railway returns, visiting districts, getting the best information, and forming a correct estimate, estimates that the annual loss on this line will be £31,458, and he says he cannot see any chance of that loss being reduced for a very long time;—I ask you, as a taxpayer, if you can recommend to the Committee the construction of a line that would cost £1,000,000, and entail a loss of £31,000 per annum, remembering that we are dealing only with a railway to Taree, and not with the North Coast line? We should look at the effect which the railway would have on the land. We maintain that this land is not brought up to the standard it might reach. Our contention is that the land will be increased in value very much, that closer settlement will be encouraged, and that land now being settled upon will be used for better purposes, and the production will be greater. I think we have a very poor conception of what this district will really be in the future.
2235. Where the railway crosses the Paterson there is navigable water? For flat-bottomed boats only.
2236. And the people of Paterson tell us that there is no chance of their getting their goods by the railway, because they can get them by river for 7s., when it would cost them 21s. by rail;—the Williams River is navigable at Clarencetown? Yes.
2237. Is the railway likely to get any heavy traffic from this district? Yes; pigs and cattle and crops.
2238. I am speaking of the traffic that would pay, such as maize and timber;—is the railway likely to get that? It would not get the timber.
2239. Nor the maize? It might get some of it.
2240. To sum up your evidence, you believe that the future of this district, and the whole of the North Coast districts, may justify the construction of this line? I would say so, under all the circumstances.

Thomas Randles Whitehouse, wardsman, Dungog Hospital, sworn, and examined:—

2241. *Mr. Black.*] In what particular direction do you desire to give evidence? On the timber industry and the mining industry, in that part of the country with which the last witness has been dealing.
2242. Will you, then, make a statement about those matters? I have spent upwards of thirty years in that part of the country, and I am very familiar with it, in fact, so much so, that if you put me there blindfold I think I could find my way out of it.
2243. What part of the country are you specially alluding to? To the heads of the Williams, the Chichester, and the Little rivers. I am well acquainted with all the various kinds of timber there, I having been a sawyer there for sixteen years, and there being scarcely a gully or creek that I have not been working in. I think that I am safe in saying that there is an unlimited supply of timber there.
2244. What kinds? Turpentine, red gum, blue gum, beech, and what we call negro-headed beech. It is a timber that has never yet been in the market, to my knowledge, but it is very plentiful. It is a very hard and very heavy timber, and for that reason we never could see our way clear to bring it out.
2245. Is it a dark timber? No; it is a light timber.
2246. Would there be a market for it? No doubt there would be if we could get it to market, but our difficulty was in getting this kind of timber to market. In getting cedar to market, of course we have not the same difficulty.
2247. Why? Because we can carry the cedar after cutting it out of places where it would not pay to construct a road to it. I am under the impression that if we had a railway to Dungog this timber could be drawn down to water at various parts. Mills could be erected there and worked by water-power, and the timber, then, could be drawn to Dungog, and cut to order, instead of bringing it down in the log. Practically speaking, the timber industry in this district is dead at present, simply because of the expense of carriage.
2248. What quantity of timber do you think there would be;—would enough be sent away daily to load a truck? Yes, until you and I are in our graves and our children after us. The supply is so great that, as I have said, it is practically unlimited; blackbutt and tallow-wood.
2249. How much per ton do you think you could afford to pay for the carriage of that wood? We do not go by the ton, but by the truck.
2250. How much could you afford to pay for the carriage of 300 superficial feet of timber to have it taken by rail to the junction of the northern railway at Maitland? That would depend on what we could get for it—the market price would rule that.
2251. But you know what you can get for timber now, and what it costs you to get it to market by water;—how much could you afford to pay for its conveyance to market by rail? That is a question I am not prepared to answer just at present.
2252. Then you do not know so much about the timber after all? I know the timber is there. Then there are also the mineral deposits which are blocked simply for want of easy carriage to get the ore away. I do not mean to say that that applies to gold-mining altogether.
2253. How many mines are there in the district? There are a good number of mines, but I cannot tell you the number.
2254. Do you know how many men are employed at mining in the district? I do not. I know there is a silver-mine there in which I am completely blocked, because I cannot afford to get the ore away on account of the carriage and the transhipment.
2255. *Temporary Chairman.*] Are you aware that if a railway were constructed to this place it would cost
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you more to send stuff by rail to Sydney than it does now to send it by water? I am not aware of that, because there is the transshipment. If I were to get ore brought to Dungog it would mean so many transshipments—from drays to boats, and boats to trucks, and so forth.

2256. The only transshipment, so far as you are concerned, would be from dray to boat at Clarencetown? I would have to send the ore to Dungog in a dray, and in another dray or waggon to Clarencetown.

2257. Could not the dray that brought it here take it to Clarencetown? No, because the roads are too hard for bullock travelling, and the idea would be to send it by horse teams from here to Clarencetown and by boat from Clarencetown to Newcastle, where it would have to be put in a truck to be sent to Cockle Creek.

2258. What would it cost you to deliver hardwood timber per 100 feet from the mountains or gullies where it is grown to Newcastle at the present time by road and river? I really cannot tell you.

2259. *Mr. Fegan.*] Whereabouts are the mining centres? At Wangat, the Chichester, and the Little River.

2260. Where is your nearest place of shipment? At Clarencetown.

2261. What is the distance respectively from those places? From the Chichester it would be 40 miles to Clarencetown, and from Wangat, I suppose it would be about 30. Wangat is on the Little River.

2262. How long is it since you were interested in those mines? I am interested in them now.

2263. How long, then, is it since you worked those mines? About six months.

2264. The chief reason why you gave up working them was the want of facilities to get to market? Yes.

2265. How long have you been interested in those mines, and how long have they been worked? The silver lode has not been properly worked; it has only been opened out, and I have had the ore assayed. I have had an offer for the ore, but I could not see my way clear to send it away, on account of the expense of carriage.

2266. What was the offer? It was contained in a letter that I received from the Sulphide Corporation (Ashcroft process), Limited, Cockle Creek, dated 13th April, 1897, as follows:—"In reply to your letter of 12th instant, we have to inform you that if you can supply in large quantities ore similar to your sample marked No. 2, we can offer you about £5 10s. per ton for it, delivered in trucks, Newcastle."

2267. Do you think that is a fair offer? Yes, I do, considering that it is what is called a low grade ore.

2268. What would it cost you take it to Clarencetown, and then from Clarencetown by boat to Newcastle? I do not suppose that I could get it delivered in Dungog under 30s. a ton. What the ruling rate is between Dungog and Clarencetown I could not positively say, but I suppose it would not be less than 15s., and then from Clarencetown to Newcastle, 5s. a ton.

2269. What would it cost you to put it in a truck at Newcastle? You ought to know that better than I. I am ignorant of such things.

2270. According to your own estimate, you could get it to Newcastle for £2 10s. a ton? Yes.

2271. What does it cost per ton to get it? That is another consideration.

2272. It ought to be no matter of consideration now with you, you having worked it a certain time? I have not sent any of it away.

2273. You have worked some of it? I have worked it now and again when I had time.

2274. Would it cost you £1 a ton to work it? It can be done for that.

2275. What do you think would be the output? It would be a big output.

2276. So it would really pay at that? I do not know, I am sure. It would be a great risk.

2277. But so far as calculations are concerned they show it would pay even at that? The question is whether it could be carried more cheaply by rail. If it could be placed in truck at Dungog it would go direct to the smelting works.

2278. You say that the reason why you could not accept that offer was that you had not facilities to get the ore to the market; but even with road and water carriage you could make a very good profit apparently, and many men would be pleased to join you if you could prove it? But you know the transshipping of ore does not benefit it.

2279. I know it does not do it any harm? I suppose it does not lose in weight, but the bags get burst open and it is knocked about.

2280. Have you anything else you wish to state? Yes. In the *Maitland Mercury* of the 27th May there is a report of the evidence given by Mr. Chambers, ex-Mayor of East Maitland, who stated that the river would have to be crossed about thirty times. I beg to contradict that statement.

Thomas Irwin, farmer and grazier, Bandon Grove, near Dungog, sworn, and examined:—

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2281. *Mr. Black.*] How many miles do you live from Dungog? Eight.

2282. How long have you been residing in this district? I have been residing at the same place since

1874. I know the country from here to Taree very well. I have been over it scores of times.

2283. It is now pastoral country, is it not? Chiefly.

2284. Will it be developed as agricultural country or will it still continue grazing country? I think it would develop chiefly into agricultural country if there were facilities to get produce to market.

2285. How does it compare with the land between here and the Paterson? It is superior, I think.

2286. Would you call the land between here and the Paterson agricultural land? Some of it.

2287. How much? All those alluvial flats along the creeks and rivers.

2288. What proportion does that alluvial land bear to the whole? A very small one.

2289. Is the proportion of agricultural land between here and Taree the same as the proportion between here and the Paterson? No; the proportion of agricultural land between here and Taree is much larger. Take a radius of 20 miles around Gloucester, and I do not think you will find more good agricultural land on the same quantity of country in any part of New South Wales.

2290. What class of country is it? Open forest, and alluvial flats along the rivers.

2291. There is not much farming there now? No; it does not pay them to send their stuff to market by bullock drays. It would take them a week to bring a load of wheat or maize from the Barrington to here.

2292. Where do they find their market now chiefly? Here chiefly—either here or Raymond Terrace.

2293. Are they too far from the water for water-carriage? Yes; they are north from here. I have seen a splendid crop of potatoes on the Barrington, and the man who grew them would not dig them, because

it

it would not pay to dig them and take them either to Raymond Terrace or to Dungog at 5s. a cwt., for the simple reason that on the dray the potatoes would be so loaded, one bag on the top of another, that they would not keep.

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2294. How far is it from where the potatoes are grown to the place of shipment? Sixty miles, I suppose.

2295. Is not £6 a ton rather a high charge for 60 miles of road carriage? Yes; and then they would have to forward them on to Sydney and pay the freight.

2296. How long would they be on the road? A week, or perhaps three weeks if the weather were wet. I have known teams stuck up on the road between Raymond Terrace and Gloucester often for three weeks.

2297. How long ago was that? Twelve years ago.

2298. Are the roads the same as between here and Maitland? Much the same.

2299. How could you get stuck up on roads made like those? Heavily-loaded drays cut into these roads very often. I have seen timber trucks down to the axles. In our own district there is a good deal of unalienated land which could well be taken up if there were better facilities to get to market.

2300. Do you think it will not be taken up until the facilities of traction are improved? I do not think it will. I may say that water carriage is cheaper than the railway freights would be from Dungog, but the expedition in getting your stuff away would counteract that, and we would willingly pay a higher rate to get the stuff away faster to catch a rising market.

2301. How much would you be prepared to pay? Sometimes it would be worth our while to pay twice as much.

2302. Would expedition in getting to market enable you to pay twice, or sometimes three times, as much? On some produce it would—such as butter, fruit, and live stock.

2303. In any case, I suppose, you would continue to send timber and maize by water? I do not know. It costs about 2s. 4d. a bag to send maize from Dungog to Sydney. I paid last time 1s. a bag from here to Clarencetown, and 1s. 4d. from there to Sydney. It has to be transhipped from the river steamer at Newcastle into a larger steamer. Pigs cost 4s. 3d. each from Dungog to Sydney.

2304. You know that this railway is estimated to cost nearly £1,000,000? Yes; from Maitland to Taree.

2305. Do you think there is anything in the condition of the district or in its future prospects that warrants such a tremendous expenditure? Yes; I think the expenditure would be justifiable, because in the near future the railway would pay. I do not think it would pay at the present time, but it would create traffic itself, and the districts would get populated, and, consequently, eventually the railway would pay, and I think the farther you went on with it, the better it would pay. I do not think the railway from here to Maitland would pay, nor anything like it, but going farther north it would cause population to settle within a reasonable distance of the railway, and eventually I think it would pay.

2306. Do you know that such an expenditure, without the cost of resumption, would mean for annual interest on the sum expended about £30,000, and about £20,000 for maintenance and ordinary expenses, making a total of about £50,000 per annum; and do you think that at any period (say within the next twenty years) the return from the line is likely to reach that amount? I would think so.

2307. And you believe that the construction of the railway would facilitate settlement in the district and open up the country? Yes.

2308. In spite of the fact that a large portion of the land is privately owned? Yes.

2309. Do you know if there is any demand for land in the district now? Yes, there is a good demand for good land in the district. Good land will sell readily. This morning, just before I came in, I heard of a sale of 366 acres of land, 5 or 6 miles out of this town up the river, for £2,000.

2310. Is that a fair average price, or is it an exceptional purchase? I think it would be a fair average price for it. It is improved a good deal; there are a house and fences.

2311. It does not include any stock does it? No.

2312. A good homestead, I suppose? Yes; a good bush-house.

2313. Do you think agriculture would pay at such a price as that for land? Well, the man who sold it took it up thirty or thirty-five years ago, and has made a good living upon it ever since.

2314. Then, farming even without a railway cannot be such a bad thing after all? There are worse things than farming, although it is at a low ebb.

2315. *Temporary Chairman.*] Do you know the A. A. Co.'s land—"Gloucester"? Yes.

2316. There is a lot of good land belonging to that company? As good as there is in New South Wales.

2317. How many acres are there of that good land? I have no idea.

2318. Would there be 25,000 acres of good land? Yes; I think there would be.

2319. Land well adapted for agricultural purposes? Yes; and the second-rate land is splendid grazing land all round there.

2320. Do the company sell any of their land now? I think they are willing to sell the land at a certain stated price per acre on very reasonable terms.

2321. Do you know the price? I think it is about £6 an acre. They sell the forest land at less than that—25s. or 30s. an acre.

2322. Do you think that it would pay a man to give £6 an acre for it and clear and cultivate it? Yes. I would readily give £20 an acre for some of it, if there were a railway in the district.

2323. Where does the flour come from that feeds the people of Dungog at the present time? I think we have flour enough in our own district for our own consumption; but for the past ten years there has not been much wheat grown here until the last couple of years.

2324. You have been fed with flour from South Australia and Victoria? Most of our flour came from Sydney. Wheat went down to 2s. and 3s. a bushel, and we thought we could employ ourselves better than in growing wheat.

2325. Wheat at 2s. 6d. a bushel would not pay? It would pay very well at 4s. or 5s. a bushel. I grew a small paddock of wheat this year, and the result was about 30 bushels to the acre.

2326. Three or four shillings, at that rate, would pay you very well? Yes.

2327. You do not look upon the district as a wheat-growing district? No; it is more of a tobacco and maize growing district, and mixed farming and dairying.

2328. Do you consider the land in this district is good grazing land? Some of it.

2329. Where is it situated? There is good grazing land—good fattening forest land—up the river from here for 20 miles. The land you see just about here is only second-class land, and not very good at that.

2330. *Mr. Fegan.*] You have cleared a portion of your land? Yes.

2331. And you have put it under wheat sometimes? Yes.

2332.

- T. Irwin. 2332. Would you give the Committee the benefit of your opinion as to how much it would cost to clear it, sow it, and reap it, at the present rate of wages? Heavy bush land on the river—the alluvial flats—would cost £5 or £6 an acre to clear, and £1 an acre to plant it, and 10s. an acre to gather in the crop, or between £7 and £8 altogether.
2333. But what would be the annual cost? The cost of labour in ploughing and sowing and reaping.
2334. Are wages higher here than they were formerly? No; they are lower. Fellows come round every day looking for work.
2335. How many bushels on the average would you get to the acre? I have grown as much as 45, and as little as 15, bushels to the acre, but a good average crop would be about 25.
2336. And you say that it will not pay at 2s. 6d.? No; I do not think it pays. Maize pays better at 2s. 6d., because you get double the quantity—50 or 60 bushels to the acre—and that pays better than wheat at 3s. or 4s.
2337. But there is land that will not grow maize and will grow wheat? Yes.
2338. You put that land under cattle instead of under wheat? Yes.
2339. Twenty-five bushels, at 2s. 6d. a bushel, would give you £3 2s. 6d.; the outlay at first for clearing would be rather large, but there is now a large proportion of the country already cleared and ready for wheat; I am alluding to land once under cultivation, but now used as fattening country;—do you not think that wheat-growing on that land would pay better than fattening stock, if it takes 6 acres to a head of cattle? It would not take 6 acres of that land to a beast. I think it would take only 3.
2340. Do you not think that £3 2s. 6d. would pay you? It might pay you if you had nothing better.
2341. But while you have something better it will not pay—that is the idea? Yes.
2342. At the same time, wheat would really pay in this district at 2s. 6d. a bushel, would it not? I do not think so.
2343. What would be a fair return for 1,000 acres in this country? Wheat-growing in this district is not like wheat-growing up the northern line near Tamworth, where they use double, treble, and four furrowed ploughs. We can use only the single-furrowed ploughs, and it takes a man and a pair of horses pretty well all day to plough an acre.
2344. Why? Because they cannot do more.
2345. Is the ground too heavy? No.
2346. Why cannot they use the double or treble furrowed ploughs? Our flats are not large enough in extent.
2347. They are not too heavy? No they are not.
2348. So you really could use them if you wished? I daresay you could. Our land is hillier than it is up there where they use them.
2349. Do you not think that it would be more beneficial for the settlement of a larger number of people about here to put land under agriculture than to work it otherwise? Yes; that is why I advocate the railway. It would populate the district. On the large extent of land belonging to the A. A. Co. there are only a superintendent and a couple of stock-keepers; at “Gloucester” the whole concern does not cost the company more than £300 or £400 a year. I do not know how many thousand head of cattle they have, but not nearly as many as the land would carry; and I think that if the company could be got to come to reasonable terms the railway would open up that country.
2350. The chief reason why you support the proposed railway is that you think there will be much more settlement than there is at present? Yes, that is the chief reason.

Joseph Abbott, grazier, and Mayor of Dungog, sworn, and examined:—

- J. Abbott. 2351. *Mr. Fegan.*] You know the proposal before the Committee? Yes.
- 28 May, 1898. 2352. And you have heard from the statements already made that the proposed scheme is estimated to cost nearly £1,000,000? Yes.
2353. And will result in a loss of £31,000 per annum, with an assurance from the traffic manager that that loss is not likely to be reduced for a very great number of years? Yes.
2354. Under these circumstances, do you think the Government are justified in spending such a large sum to obtain such a result? In my opinion, there is no possibility of the line paying for many years; but it might ultimately pay.
2355. You are prepared to accept the statement of the traffic manager, that the line will entail a large annual loss for a long time to come? Yes.
2356. Now, what about the prospects of the line on what are commonly spoken of as national grounds;—supposing that it were the commencement of a through line to the Queensland border, do you think that the expenditure would be a justifiable one? It would have to depend on the traffic further on to pay at all. I think the first thing that the Government should do would be to get the A. A. Company's land from them.
2357. You do not think the Government are justified in spending a large sum of money to enable the A. A. Company to sell their land at a big profit? No; I think the Government should get the land first.
2358. The company have offered to give the land required for railway purposes a chain and a half wide through their estate free? I daresay; it would pay them well.
2359. You are under the impression that before any large sum of public money be spent to open up the district the Crown should first acquire the A. A. Company's land? I think so. The first duty of the Government should be to get that property.
2360. It has been remarked this morning that the A. A. Company have assessed their land at 4s. 6d. an acre for taxation purposes? I have heard that before to-day.
2361. If the Government could re-buy that land for double that money it would be a good spec.? Yes.
2362. A large quantity of it could be re-sold? Yes.
2363. A considerable area of the company's land is really good land? Yes; not brush land but open apple-tree flats.
2364. I suppose there is valuable timber on their land? Yes; tens of thousands of pounds worth.
2365. And also tens of thousands of acres not worth 1s. an acre? There are thousands of acres on the company's estate not worth 1s. an acre.
2366. There is a good deal of Church and School land in the neighbourhood of Gloucester which is good? There is a strip running from Raymond Terrace to Gloucester, and 20 miles further.
2367. That will be thrown open soon? Yes.

2368. Do you think that it will be readily taken up? Yes, I am sure it will all be applied for.
2369. In the event of the proposed railway being constructed, do you see any likelihood of a large accession of population in the district? I think the population would increase largely, more especially if you were to secure the A. A. Company's property.
2370. A large accession of population would mean a considerably larger amount of traffic? Yes.
2371. You know the country pretty well beyond Gloucester? Yes; up to Taree. I have been further on, up to Kempsey.
2372. Do you know the route that the proposed railway will follow? Yes.
2373. Does that pass through or near much of good land? Through the A. A. Company's property it does.
2374. And through the Church and School lands the same? It goes through the Church and School lands on to the A. A. Company's estate, but it does not touch the Church and School lands afterwards, although it is close to them.
2375. Some of the land which it passes through on the A.A. Company's estate might be considered, I suppose, good land on both sides of the line? It would be off the line of railway.
2376. How far? Not more than a mile from one part of the line.
2377. It is all within reasonable distance? A lot of it is.
2378. The bulk of the land would be so reasonably close to the railway that people could not say they were too far from facilities to get to the market? No, they could not, if they had the railway.
2379. What is the farthest distance that a man growing maize or wheat could haul it and make it pay—10 or 12 miles? Wheat is brought 30 or 40 miles from the head of our river to Clarencetown.
2380. Does it pay? I suppose it must pay or they would not keep on doing it.
2381. Sometimes people struggle along making a bare existence? It is only a struggle, I suppose.
2382. What, in your opinion, is the farthest distance a farmer can haul his stuff to market by dray and make a comfortable living? I can hardly state that.
2383. If it is stated in other parts of the country that from 12 to 15 miles is the maximum distance a man should be separated from railway communication, would you take that to be substantially correct? Yes; that would be far enough to be away.
2384. I suppose that none of the good land belonging to the A. A. Company would not be much more than 15 miles from the line? No; I suppose it would not be.
2385. You cannot recommend the carrying out of the present proposal unless the Government first acquire the valuable land now in the hands of the A. A. Company along the route? I certainly think that should be the first thing done, for the Government would then get the benefit of the rise in the price of the land.
2386. The Government would get the advantage of increased price, and that would help to recompense the State for the cost of the railway? Yes.
2387. Do you think that this railway is likely to get any traffic in the neighbourhood of the Manning River; this Committee has to examine into the propriety of spending £40,000 or £50,000 in improving the entrance to the Manning River;—do you think, in the event of the people there getting better facilities to send their produce by sea, they would be likely to send it by this railway if it were constructed? Well, the way the bar has been for many years, I think we would get nearly all the produce by rail.
2388. But we are assured by the engineers that they can make it a safe bar? It has been a dangerous bar ever since I can remember it.
2389. In the event of the bar being made good, is it likely that the railway would capture any of the heavy traffic there? It would get the live stock.
2390. But the live stock from the Manning River is not a very important item—pigs and calves principally? 2,000 fat bullocks went through here last winter.
2391. From the Manning? From Kempsey.
2392. There is a chance of the steamers reducing their freights if they are brought into competition with the railway, and under all the circumstances, do you think that it is likely that the railway will capture much of the trade of the Manning district? It would capture all the live stock and perishable goods traffic, and also the passenger traffic.

J. Abbott.
28 May, 1898.

Walter Bennett, journalist, Dungog, sworn, and examined:—

2393. *Mr. O'Connor.*] Would you kindly tell the Committee what your opinions are in regard to the proposed railway from Maitland to Taree? I think that some of the reasons that could be advanced for the construction of the line would be that it would afford facilities for settlement, would encourage the establishment of industries, and provide employment for the people, and by doing that, although the line might not pay at the beginning, it would eventually pay. I may point out that the North Coast has produced an enormous quantity of timber, but near the coast the timber has become exhausted. North of the proposed line, extending from the head of the Chichester River to Gloucester, there is a forest reserve of 10,000 acres which carries some of the best timber in the Colony, and I think it is only reasonable to suppose that if a railway were constructed, at least half a dozen sawmills would be speedily working there, more especially as the timber between the proposed line and the coast is almost exhausted.
2394. It would open up new and virgin forests? Yes; it may be taken as a general rule that land near the coast is of poor quality. The higher you get towards the ranges it improves, and if the timber were taken off the reserve the land would undoubtedly carry a very large population. The soil is suitable for fruit-growing and general farming. On what we call the "tops" here, due north of Dungog, there is a large tract of country extending from Nundle to the Little Mountain. It is unoccupied at present. It is open country, suitable for wheat-growing and general farm purposes. I think that in all probability it would be taken up and settled upon. In passing, I should like to express the opinion that the Government should make an offer to purchase the A. A. Company's estate at its fair market value. I think they would be justified in doing it even if the North Coast railway were not constructed, because it is retarding settlement very greatly. It is used as a breeding station for cattle at the present time, and it is not worked to its full capacity. It is not improved; in fact, it is actually deteriorating in value. It is not in the same state it was in fifteen years ago. I may point out that, since I have been in the district, ten years, the population of Dungog alone has more than doubled itself, and the population of the district has very largely increased. This district is eminently suitable for fruit-growing, and that would be very largely

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W. Bennett. gone in for if there were easy and safe means of transit. At the present time the facilities which the stockowners have for sending (say) calves to market are so bad that very few are sent. Calves and pigs would be bred and sent away in thousands if the railway were in existence. In my opinion, if the railway were constructed from Dungog to Maitland, at any rate, it would probably carry the bulk of the produce, and also the merchandise between here and Sydney. At the present time the merchandise from Sydney is brought to Newcastle by boat, and is transhipped into a smaller boat at Newcastle and brought to Clarence-town, and we pay from 13s. to 15s., boat and road, per ton for it to be delivered in Dungog. If the proposed railway were constructed, in all probability the merchandise would be brought in a steamer direct from Morpeth, there would be no transshipment at Newcastle, and the railway would carry it from Morpeth to Dungog cheaper than it can now be carried by river and road. At present we have 5,000 acres of land under cultivation.

2394½. How far are you acquainted personally with the proposed line? I know it only as far as Gloucester.

2395. What is your opinion of the land between here and Gloucester, 10 miles on each side of the proposed line? It is of very fair quality, and I think it is admirably suitable for dairying—well watered good grass lands, and with river flats which are fairly rich.

2396. Were you present to-day when the mayor gave his evidence? Yes.

2397. You heard the suggestion about the A.A. Company giving to the Government sufficient land free for the railway to go through? Yes.

2398. Supposing that the company did that, would that lead to considerable settlement? It would undoubtedly lead to a lot of Crown lands being taken up north of the A.A. Company's Estate, but whether the A.A. Company would utilise the land they have at the present time I cannot say.

2399. You have heard the Chairman very properly remind every witness that this railway, if constructed at present will involve a loss to the Colony of £30,000 a year;—supposing that the railway were made, and those vacant lands, that are so large in area and in many cases so rich, were brought into proper occupation, would not the carriage of the produce go considerably towards reducing the anticipated deficit on the working of the line? I think so. I am of opinion that within ten years the population would so very largely increase, and, necessarily, the production also, that the deficiency in the working expenses would be entirely swept away—that the railway would pay within that time.

2400. Within the area of the proposed railway you can produce cereals of nearly every description? Yes.

2401. You have the great forest, which is a valuable asset? Yes.

2402. You can produce wine and fruit? Yes.

2403. And if you had the necessary facilities to enable you to carry those to the great market—the metropolis of the Colony,—would not that encourage industry, and promote settlement? Certainly it would, to a very great extent.

2404. The natural deduction from that is, that that would go towards wiping out the anticipated great deficit? Yes.

2405. And in course of time, although the railway might involve a loss, as nearly every railway does at the start, you have here natural advantages which would enable you to compete with any other portion of the Colony? I think we have greater advantages than most parts of the Colony. We have an equal rainfall; the country is well watered. Near the coast the land may not be of the best quality, but higher up towards the mountains the land is unsurpassed, and can produce almost anything.

2406. Do you know anything, personally, of the perils of the sea between Sydney and the Manning, the Bellinger, and the other northern rivers? Not personally.

2407. In your capacity as a journalist, do you know that the harbours are very bad and dangerous? I saw a short time ago that on the Bellinger a shipload of maize had to be thrown overboard, and I noticed that at Kempsey, a few months ago, a cargo of pigs were actually starved on board, because there was not enough there to feed them; and I have read in the newspapers that the farmers on the Bellinger had suffered serious loss at times through their inability to get their produce to market.

2408. That being so, it is not likely that those people would run the risk of sending by sea, no matter how attractive and liberal the terms for freight might be, and you think they would utilise the railway? Yes.

2409. Did you notice that the Chairman reminded witnesses to-day that the revenue, from all sources, of this line would be £18,000? Yes.

2410. Supposing that the railway were to charge the same price for transferring a pig from the Manning to Sydney as the steamers do now, the railway would get £15,000 a year alone for the carriage of pigs? I think so.

2411. Therefore, the traffic-manager did not get all the facts necessary to impart correct information? I think that he has under-estimated the revenue in every direction. In this district alone we reckon that we fatten over 10,000 pigs a year. At Copeland, and near Gloucester, there are a large number of mines. At present they are not being worked on account of the refractory nature of the ores; but if the proposed railway were constructed the possibility is that concentrates would be forwarded to Sydney, and many, perhaps thousands of tons of ores, would be treated at the Clyde works.

2412. *Mr. Fegan.*] To your knowledge, how many tons have been sent from that mine you are interested in? I sent 25 tons myself. I could not tell you what quantities were sent before.

2413. You have been in the Colony a considerable time? Yes.

2414. I suppose you will admit that there are a large number of railways now working at a loss which never should have been constructed under the circumstances—that is to say, if a railway does not show that in the near future it would pay, it should not be constructed? I do not hold that opinion. I think that even if a railway did not pay in some cases, it would prove beneficial to the State by increasing production, and settling people on the soil, and thus increasing the national wealth in other directions, and diminishing the unemployed.

2415. Does a railway diminish the unemployed? If it opens up country, and increases settlement, it will tend to diminish the unemployed by giving them facilities.

2416. Sometimes it brings a large number of people into the district, too, and leaves them without any homes or employment, or anything else? You can say the same of any public works. The Bogan scrub clearing, and the sand-shifting in Sydney did the same thing.

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2417. Considering the huge loss that is set forth in the estimate, do you not think it would be a long time before you could pull up that loss? I do not think so, because there is such a large area of Crown lands in the vicinity of the proposed railway which will increase in value, and will more than compensate the Government for the loss. There is a large area of Crown lands now lying practically useless and unproductive.

2418. Is there much Crown land to be thrown open in the area surrounded by the red lines on the map? Apparently there is more alienated land than Crown land; but there is a large tract of country outside that area.

2419. Which would be farther from railway communication than you are from Maitland at the present time? That is quite possible.

2420. Then how will you give facilities for bringing those people within the scope of the line;—if the people of Dungog want a railway and they are only 33 miles from Maitland, will you not still have a large number of people away from railway communication? We will, but they will gravitate to the nearest railway station.

2421. You can see the land marked brown on the east of the proposed line? Yes.

2422. Would you describe that land? That land is unoccupied, and is of very poor quality.

2423. And it is Crown land? Yes.

2424. Which cannot be taken into consideration as giving much traffic to the proposed railway? No.

2425. Of the land west of the line marked brown there is very little that you have any knowledge of? Not within that circle; but there is land outside that—what they call the “tops.”

2426. The land within the circle you have not much knowledge of? I have been over portions of it.

2427. What is its character? It is good grazing land, well watered—better in quality than the land about here.

2428. So we must go outside the circle before we have country that will carry a large population? Yes. There is country outside the circle which will support a large population, and the land unsold inside the circle will also carry a good population. On the north-west side it is of good quality, but on this side of the Myall it is of poor quality.

2429. Where are the principal mining centres? There is Wangat and Copeland.

2430. The Copeland is an old gold-field? Yes.

2431. Are there a large number of men working there at present? I suppose there are 300 on the field.

2432. I suppose you have not heard of any results lately you can give the Committee any information upon? The last crushing I heard of was at the “Lady Belmore,” which went 6 oz. to the ton.

2433. I suppose you are not aware of the conditions on which the A. A. Company let forest land? I am not.

2434. They are not as liberal as the Crown in their leasing of forest land? No.

2435. Do you think that much timber would be sent by rail if the proposed railway were constructed to Taree? I think so.

2436. Would the people not send it by boat? At the present time a large quantity of timber is brought through Dungog from places north from here and taken on to Clarencetown, and in all probability it would go by rail from Dungog.

2437. Where is your market for timber? New Zealand principally.

2438. So, even if you had a railway, a great portion of your timber trade would be an export trade? Yes.

2439. Are you intimately acquainted with mining? I have been interested in several mines.

2440. But you are not intimately acquainted with mining personally? I am not a miner.

2441. Do you think the prospects of those mines you speak of are of such a character that the Committee can consider them of some importance in regard to the estimate of railway traffic? I think so. I think that Copeland will ultimately be as productive of gold as it was shortly after it was first discovered.

2442. Do you think that the Barrington will, too? A considerable area is contending with water. Capital is wanted for deep-sinking and pumping. There are refractory ores, and I am positive that half the gold is being lost in the tailings, and they should be sent to Sydney for concentration. Last year a large quantity of tailings and concentrates were sent from Copeland to the Clyde works.

2443. How much a ton do you pay for carriage to Clarencetown? I have paid £1 15s. a ton from Wangat to Clarencetown.

2444. And how much from Clarencetown to Sydney? I think 13s.

2445. And how much from Sydney to the Clyde works? Three shillings.

2446. That is £2 11s. altogether? Yes.

2447. I suppose more than one mineral? Gold and silver.

2448. Any copper? No.

2449. What timber do you chiefly use in mining here? Ironbark.

2450. Is it plentiful? Very plentiful.

2451. Have you any machinery on your mine? There are six or seven batteries at Copeland and Wangat.

2452. The fuel used, I suppose, is wood? Yes; some of them are worked by water power.

2453. I suppose you have not heard of any coal deposits about here? There is a coal deposit between here and Stroud—an outcrop of coal.

2454. You only see the outcrop—it has never been tested? No, it has not; and there is an outcrop at Ward's River, on the Gloucester Estate.

2455. Is it a fact that you have to pay £1 6s. a ton for coal here? Yes, I have paid that for coal brought from Maitland, and I have paid £1 8s.

2456. For years to come there will be plenty of timber for your purpose? Yes.

2457. *Temporary Chairman.*] You are aware of the population affected by this railway proposal—that is, taking the entire population from Maitland to Taree: the total population affected within 10 miles of the line on either side is 13,600 souls, and from that number you have to deduct 2,500 souls served by railway now, about Hinton, Clarencetown, and Maitland, leaving the population to be served by this line at 11,100;—how does that accord with your own ideas of the population of the district that embraces Taree, Wingham, and all along the line from (say) Paterson—do you think it is a fair computation? It seems to me to be a low estimate.

2458. They base their population return thus,—they know the number of voters in each district, and they add to that a certain percentage of population, which they find from experience makes the total represent the

W. Bennett. the entire population; and their computation is 11,100 souls? I may say that between Brookfield and Salisbury in the Williams district only, the police give their returns at over 4,000 people. That is an area which would be affected by the railway; it is not outside the limit.

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2459. As reported on page 20 of the evidence, the officers of the Government Statistician's Department estimate the population of localities in the county of Durham—including Bedolbo, Bolwarra, Brookfield, Clarendetown, Dungog, Gresford, Hinton, Largs, Paterson, Seaham, Vacy, and Woodville—at 4895; and outside those localities at 1,385, making a total of 6,280; but a number of those places would not be affected by the proposed railway, for instance, Bolwarra, Clarendetown, Hinton, Largs, and Seaham, because they are on the banks of the Hunter, and in immediate proximity to the present railway; the other population along the route of the proposed line is very slight, for instance, Stroud, 305; Thelaba, 200; Tinonee, 255; Bandon Grove, 325; Clarkson's Crossing, 95; Kimbriki, 140; Monkerai, 170? I think that is a very low estimate.

2460. That is only an approximate estimate based on the number of voters in each district;—you think, from your knowledge of the district, that it is a low estimate? In my opinion it is a very low estimate.

2461. Do you know anything about the Manning River? No, I do not.

2462. Are you under the impression that there is a large area of land there still available for settlement? I understand there is, north of the Manning—between that and the New England district.

2463. Would you be surprised to know that that is known as waste lands of the Crown, and that a lease of 21,000 acres of it can be obtained for £12 per annum, and it is actually unoccupied—nobody will pay anything for it? It is quite possible.

2464. Does not that point to the fact that the land is of the worst possible description? I do not think so.

2465. Why not? The land is probably very rich land, heavily timbered, and would not pay for pastoral purposes; but if it were cut up into homestead selections, on easy conditions, settlers would make homes there.

2466. A settler may take up 21,000 acres, and improve whichever portion he likes, and get that area for £12 per annum? But look at the improvements that would have to be effected.

2467. Every piece of the land in that part of the district that has been considered any good is already alienated, and the officers of the Lands Department say that the unalienated land is practically worthless;—I suppose the district surveyors and officers of the Lands Department should know something about it? They should know something about it. There is a lot of unalienated land within 20 miles of Dungog of fair quality, but the Government are demanding £1 an acre from the ordinary selector, when it is worth only 10s., and if it were offered for 10s. it would be taken up speedily.

2468. Has the Crown offered any land in this district for homestead leases under the 1895 Act? Yes, and it has all been taken up.

2469. Do you think any further area would be taken up if it were offered on the same conditions? I think it would.

2470. You know the conditions are twenty-eight years' lease, with the right of renewal, and at a very small rental? Yes.

2471. You think that a great deal of the vacant land in the district would be taken up if offered under the 1895 Act for homestead or settlement leases? I think so.

2472. You also think that the same thing would apply to the northern lands if offered on the same terms? I think so.

2473. But you do not think people are likely to take them up for pastoral purposes under a twenty-one years' lease at the same rental? They would be practically useless for pastoral purposes.

2474. Why? Because it would cost so much to improve the land.

2475. But open forest land is good enough for pastoral purposes, is it not? I am not acquainted with the land but I have heard it is heavily timbered.

2476. A great deal of it is open timber land? But some of it is not good land.

2477. You think that the country would be justified in spending £1,000,000 and subjecting the taxpayers to an annual loss of £31,000 on this railway for a number of years, because you believe that it would open up the country for settlement, and a large population would be attracted to it? Yes, and land that is useless now and unproductive would be made productive.

2478. And the increase of population would increase the value of the railway asset? Yes.

2479. And also increase the quantity of produce to be carried on the other railways? Yes.

2480. Your contention is that the large annual loss would be gradually decreased by the steady increase in population? That is my opinion.

Frederick Augustus Hooke, grazier, Dungog, sworn, and examined:—

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2481. *Mr. Fegan.*] How far do you live from here? Two miles.

2482. What is your area? 2,500 acres.

2483. What do you utilise it for? Grazing and farming.

2484. How much do you farm? About 40 acres.

2485. Under what? Maize, oats, lucerne, and potatoes.

2486. Which is your market? Dungog principally—the Maizena Company.

2487. Then you do not know much about the carriage of goods either to or from Maitland or Clarendetown? Not personally, but I think that the regular charge for carrying maize from here to Clarendetown is 1s. a bag and 6d. from Clarendetown to Newcastle.

2488. Do you think that if you had a railway you could get it carried more cheaply than that? No, I do not.

2489. Do you think you would get it carried as cheaply? I would not be prepared to say that. I do not think you would get it done more cheaply at all events—perhaps not as cheaply.

2490. What evidence have you to offer in support of the construction of the proposed line? I think it would help us to compete with places where the people are served by a railway. I think we could send more stock away, and would produce more, and would be in more direct touch with the metropolitan markets than we are now.

2491. Of course, you cannot send stock by boat? We do not.

2492. Therefore, you have disadvantages for (say) 34 miles? If we had direct communication by rail we could

could send a great deal more stock away than we do now, because in many parts of this district people do not fatten enough to send away a big lot, and with a railway they could send smaller lots, and when they were not quite so fat.

2493. Are you sending stock to Maitland? Yes.

2493½. How long does it take you? Generally two days.

2494. That means a great deal in the market at times? Yes; it means that if you have a beast not in very good condition two days driving and starving is a great consideration. I think that the railway would cause a larger population to settle here, and that gradually the land not now used would be brought into use. There is a lot of timber here now which is not marketable, because the expense of getting it to market is too great.

2495. It would not pay anybody to send it to market under present circumstances? No, it would not.

2496. Is not the water-carriage used for timber more than anything else, on account of the cheapness of the water-carriage? I suppose it is, but then we are 16 miles from water-carriage—from Dungog to Clarencetown is about 16 miles.

2497. The position you take up in reference to the railway is that you support its construction because in the first place, it would open up country that is now closed on account of the impracticability of getting your stock to market, and poor facilities, more especially for the conveyance of perishable produce? Yes; and it would increase population.

2498. There would not be much land ready to be thrown open if this railway were constructed? Perhaps not in this neighbourhood.

2499. Do you think that it would give an inducement to the A.A. Company to throw open some of their best land for settlement? I certainly think it would.

2500. Would not the construction of the railway to Taree very considerably increase the value of the A.A. Company's land? There is no doubt about that.

2501. Who would chiefly benefit by that? I suppose the A.A. Company would.

2502. The cost of constructing this line would be £982,000, and the traffic receipts would be £18,000, and the annual interest and the working expenses would amount to £49,000;—considering that the annual loss in round numbers would be £30,000, do you think that there would be any probability in the near future of the railway paying anything like interest on the cost of construction? No, I do not.

2503. Do you then think it wise, at this stage, to construct a railway under those circumstances? You said in the near future.

2504. If the line were commenced to-morrow it would take five or six years to complete it? I should think that after a time there would be a great possibility of the line paying.

2505. From what sources? Because population will be settled along the line, and perhaps, indirectly, the Government will make up the expense.

2506. Your case is, that if the line be constructed, the value of land—and the Crown has yet a large area of unsold land—will increase in price, and though the railway may not pay directly, yet the increased value of the land, by rental or otherwise, will help towards paying for the railway? Yes; and population would very much increase, and would have to use the railway, and in that way I think it is very probable the expenses would be met.

2507. If you had to find the money, you would not care to go into a transaction like that as a shareholder? I do not think I would.

2508. However, that is your case—you believe in a great future for this district, that the line would help it considerably, would settle population, would give greater facilities to those on the land at present to send their stock and produce to market, and enable them to command a better market than they do now, which is very limited on account of their being short of facilities, and you think that a large return from the Crown lands would accrue owing to the construction of this line? Yes.

2509. *Temporary Chairman.*] With reference to one of your last answers, I suppose you recognise that there is a wide difference between the enterprise of an individual and the enterprise of the State? I do.

2510. That while it might be proper for the State to go into an undertaking, it might not be likely that private individuals would do so? Yes.

2511. *Mr. Fegan.*] In dealing with the public money, do you not think that just as much consideration ought to be given to it as would be given in dealing with a man's private purse? Yes, I do.

2512. That is to say, all circumstances must be taken into consideration? Yes.

2513. Because we are dealing with the public purse, it does not follow that it is always to be looted? No. But still we should be put in a fair way to compete with other places that are favoured with railways.

2514. You say you think it would cost you more to get your maize to market by rail than it does now by water? I think it would cost as much at any rate.

2515. How will that help you to compete with outside markets? You are only taking one thing.

2516. We will take other things, if the railway would not help you in that one line? It might not in that particular line.

2517. Take calves;—what do you pay for sending a certain number to market? It is almost impossible for us to send calves to market.

2518. If they are taken by team to Maitland they get into a worse condition? It is very hard to get them to market. If we could get calves to market, a lot of the land which is now used and hardly pays would pay handsomely.

2519. If it were all Crown lands that the railway would go through that would alter the case considerably would it not? I suppose it would.

2520. You yourself would be a stronger advocate of the railway if it were all Crown lands that the railway would pass through? Of course I would.

2521. But seeing that the railway will go through 52 miles of the A. A. Company's property, do you not think that that company should stand some of the expense? I most certainly do.

Edward Piper, storekeeper, Dungog, sworn, and examined:—

2522. *Temporary Chairman.*] How long have you been a resident in Dungog? Twenty-five years.

2523. In business all that time? Yes.

2524. *Mr. Hassall.*] Did you hear the evidence given by the previous witnesses? I did.

2525. Do you agree with the evidence tendered by them? Partly.

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2526. In what points do you agree with those witnesses, and in what points do you disagree with them? One witness gave evidence as to the carriage of maize between here and Clarencetown and said we were paying 1s. a bag, whereas I send down thousands of bags in the year, and we have not paid 1s. for a considerable time. Eightpence to 10d. is the general charge. At present I pay 8d.
2527. To where do you send it principally? Newcastle. I do not suppose that ten out of every 1,000 bags go to Sydney.
2528. Is Newcastle also the principal market for the other produce grown in this district? It is.
2529. You say that the carriage of maize costs you 8d. to Clarencetown at the present time? Yes; and 6d. from there to Newcastle.
2530. So your corn is delivered in the market at a cost of 1s. 2d.? Yes.
2531. Do you handle a considerable portion of the corn grown in this district? I do.
2532. Are there any others in the trade as well who handle it? Yes.
2533. I presume that their experience is practically on all-fours with yours? In all probability; I think it is.
2534. You look to Newcastle for your market, and the cost of conveying a bag of corn from here to Newcastle is 1s. 2d.? At present it is. If the price of corn goes up we will probably pay a little more to the carriers to enable them to pay a little more for the corn which they have to buy for their horses.
2535. There are certain fluctuations in the charge? Yes; when corn is up in price we pay the carriers a little more for carriage, and when corn falls in price what we pay them is reduced.
2536. Is much other produce sent from Dungog or the surrounding district? It is principally maize.
2537. That is your principal export? Yes, it is.
2538. With regard to poultry, eggs, bacon, and dairy or farm produce, is Newcastle the market for those commodities? It is the principal market.
2539. Are there any other points in regard to which you disagree with the previous witnesses? I disagree with them when they say that the line is likely to pay, for I cannot see any possibility of its paying, at any rate, for the present.
2540. Then you think the estimate of the Railway Department is approximately correct? Yes.
2541. That there must be a serious annual loss on the line if it be constructed? I think there must be.
2542. Does your knowledge bear out the statement that the land is exceptionally rich and suitable for closer settlement, and that if the railway were constructed there would be every probability of the land in general being more thickly populated? No doubt some portions of it would be.
2543. But, I suppose, you cannot agree that the whole of the district is available for closer settlement? No; I cannot.
2544. Is it not a fact that between the watercourses traversing a large extent of country between the Williams and the Paterson, and the intervening watercourses running in the same direction, there are very large areas of comparatively worthless scrub? There is, no doubt, a lot of worthless land, but there is also a lot of good valuable land.
2545. I presume that the land along the banks of the various rivers and creeks is exceptionally good? It is very good.
2546. But comparatively limited in extent? Yes, I think so.
2547. Then, judging from what I have seen myself, I should imagine that the ground running back from the watercourses gradually rises into stony ridges? In some places it does.
2548. There are nice patches of low ridges suitable for grazing; but as you reach the summit, I presume you get on land that would take a large amount of money to make it available for profitable occupation? I think it would.
2549. Therefore, the matter resolves itself into this, that with regard to the settlement of this district in future, whether with or without railway communication, a man must be possessed of considerable means to take up this unoccupied land and put it in such shape as would enable him to make a profitable living out of it? I cannot say anything about that.
2550. With regard to the trade of the district, is it increasing very much? The trade is increasing, no doubt.
2551. Is that in consequence of the increased settlement that has taken place, or the increased productiveness of the soil, through superior knowledge being brought to bear on its cultivation? Both, I think; and modern appliances have, of course, a good deal to do with it.
2552. Do you, as a storekeeper, find any great inconvenience, either in getting your goods up from Newcastle or from Sydney, or in sending your produce away? None whatever. If I get a load of corn in, there are generally two drays waiting to take it.
2553. Where do you ship? At Clarencetown.
2554. You do not send to Maitland? No; I have nothing to do with Maitland.
2555. The bulk of your traffic is by road to Clarencetown, and thence by water to Newcastle? Yes.
2556. Are the roads pretty good? They are very good.
2557. What is the general rate of carriage from here to Clarencetown? From 10s. to 15s. a ton.
2558. And the water-carriage? From 5s. to 8s. a ton.
2559. Do you think that any railway could compete with that rate? I feel certain it could not.
2560. Not to pay interest on cost of construction and working expenses? I cannot see how it possibly could.
2561. Do you agree with the witnesses who have said that a railway to Dungog alone would be of little or no service to the country, but would have to be extended up into the North Coast districts in order to open up the country, and give some prospect of its becoming a payable concern? I do not think that a railway from Maitland to Dungog would pay.
2562. Do you think that the railway, if extended further on, would be beneficial to the country? I do not think at present it would.
2563. You have heard of the estimate prepared by the Railway Construction Department giving an annual loss upon a line from Maitland to Taree, on the lowest possible estimate consistent with efficiency, amounting to over £31,000 per annum? I heard that mentioned to-day.
2564. Do you think there is any possibility of that loss being reduced? It might perhaps be reduced.
2565. Do you think it would take some years' traffic to reduce it and make the line a paying one? Very many years, I think.

2566. Is there any other particular point on which you disagree with the evidence of previous witnesses? No; I think that is all I remember now. E. Piper.
2567. Now, with regard to the evidence you agree with? The railway would, no doubt, give facilities for travellers who wish to go to Sydney, 28 May, 1898.
2568. Give more rapid means of communication? Yes; and it would be a benefit in that way.
2569. And it might induce some people to come and settle in the district who have no prospect of coming here under other conditions? It might possibly do that.
2570. *Temporary Chairman.*] Does the traffic from this district always go to Clarencetown? Not always.
2571. The largest trade is with Clarencetown and Newcastle? No doubt about that.
2572. In the event of this railway being constructed, would there be any reasonable chance of its capturing that traffic? I do not think it would capture the heavy traffic.
2573. The maize and timber and material of that kind would still go to Clarencetown on the navigable waters of the Williams River? I think they would; it would be cheaper to send them that way.
2574. Supposing that the railway were constructed, and the Commissioners for Railways thought it was incumbent upon them to win traffic, and they quoted very low rates;—do you think that the steamer proprietors would be able to cut their present rates? I do, and I think they probably would.
2575. What boats run on the Williams River? The Williams River Steam Navigation Company's.
2576. Are there any shareholders in this town? Yes, there are.
2577. Are they largely interested in the Company? They are shareholders in it to a certain extent. There are several of them.
2578. Would it be unfair to ask you who the shareholders in Dungog are? I am one of them myself.
2579. Is it a joint stock company? Yes.
2580. The Committee, I suppose, may conclude that your evidence, as that of an honourable man, is not influenced by the fact that you are a shareholder in that company? It makes no difference to me. I am giving evidence which I believe to be correct.
2581. You believe that this district is well served at present so far as the transport of its products is concerned? I do. The railway might be quicker, but I do not think that the carriage would be done more cheaply.

Samuel Stanley Kingston, farmer, Bandon Grove, near Dungog, sworn, and examined:—

2582. *Mr. Black.*] What evidence have you to offer to the Committee? I think it would be better for the district, that it would increase the population and agriculture a good deal if the proposed railway were constructed. S. S.
Kingston.
2583. What makes you form that opinion? I think that land that is now lying idle would be put under cultivation. 28 May, 1898.
2584. Why do you think so? Because we would have better facilities to reach the market, and we could get a better price for our grain and produce generally. Perhaps the market is up to-day, and before we can get there it may be down again.
2585. How often may that happen? Pretty often—it fluctuates a good deal.
2586. Your reason for recommending the construction of this railway is that you think you could get your produce to market more quickly—that you could send your products in so as to catch a rise in the market? That is one reason.
2587. Are the farmers here always in a position to wait for rises in the market? Some of them are. A good many of the farmers do wait for a rise. I think that there is land now—second-class land—which is not occupied which would come in for growing oats and hay.
2588. Do you think it would be worth the while of farmers to pay about twice as much per ton for carriage all the year, by railway, in order to catch occasional rises in the market, or to attempt to catch those rises? Yes, I think it would.
2589. Rather than to send by sea at half or one-third the cost? It would pay them to pay more; I do not know that it would pay them to pay double.
2590. If you can land produce in the Newcastle market by sea for about 5s. a ton, and it would cost you about 15s. to send it by railway, do you think that under such circumstances you would be likely to use the railway? No, I do not think so.
2591. Do you not think that the difference in price between the sea and railway carriage would often be equivalent to a fair rise in the market of itself? It would.
2592. Do you think that increased settlement in the district is likely to be beneficial to the farmers who are already here? I am sure it would.
2593. I mean increase of farming settlement? Yes; I think so.
2594. Then the law of competition does not hold good in regard to farmers? Farming and dairying—I think it would be beneficial in that way.
2595. You think, if there were a greater community of farmers, instead of competition lowering prices, that by association they would have better circumstances;—is that your opinion? Yes, I think so. Farmers, as a general rule, deal a good deal amongst themselves.
2596. What do you do with your own produce? I generally sell it in Dungog at the present time.
2597. Then you really do not know exactly what you would pay for water-carriage? Occasionally I may send some by water.
2598. What do you pay when you do send it by water? About 1s. a bag for maize to Clarencetown, by road, and 6d. to Newcastle, by water. Storekeepers can generally get it done more cheaply than farmers can.
2599. That is about 15s. a ton to Newcastle? Yes.
2600. What does it cost you to send it from Clarencetown to Sydney? One shilling.
2601. For the railway to enter into competition with the steamer it would have to land goods in Newcastle at the same rates, or about the same rates;—you would be willing to pay a little higher price on account of expedition in delivery by rail? Yes.
2602. It would still cost you about the same for delivery to the railway, I suppose, as it does for delivery to the steamer at Clarencetown? Yes.

William

William Orr Skillen, Dungog, sworn, and examined:—

- W. O. Skillen. 2603. *Temporary Chairman.*] You are resident partner and manager of the butter factory in Dungog?
 Yes.
 28 May, 1898. 2604. How long have you been in the district? About twenty years.
 2605. How long have you been connected with the butter industry? About five months.
 2606. You have an extensive factory here, have you not? Yes, we have.
 2607. Can you give the Committee any information as to how much butter you produce per week, month, or year? We have had only about five months' butter-making.
 2608. What is your output per month or per week? About a couple of tons per week.
 2609. Is the supply of cream increasing? The suppliers are increasing; but the supply of cream is not increasing.
 2610. I suppose that the winter months account for the falling-off in cream? Yes.
 2611. The number of suppliers is increasing? Yes, increasing weekly.
 2612. So, judging from your five months' experience, it seems that the dairying industry is going to be pursued here largely? It will be pursued here very largely.
 2613. Is the land here suitable for dairy purposes? Yes, it is.
 2614. Do the dairymen here feed their stock in the winter, or rely on the natural grasses? Some are feeding their stock, and others are relying on the natural grasses. They are awakening to the fact that unless they feed their stock in the winter they will not do so well, and they are making provision accordingly.
 2615. They are going into the matter in a fairly comprehensive manner? Yes; they apprehend their position exactly, and are making good headway.
 2616. Are they satisfied with the results so far? Yes.
 2617. The majority of them are? Yes.
 2618. I suppose that the dairying is combined with other farming? Yes; but I think that in this district the principal thing will be the dairying.
 2619. You think that the system of mixing farming will not go on? I do not think it will.
 2620. You think that the dairying will be so much more profitable than the other style of farming, that the farmers will devote themselves exclusively to that pursuit? That is my belief.
 2621. What class of cattle have you in the district? A fair class, and it is improving.
 2622. Which breeds? Devons, Herefords, Durhams, and a few Alderneys—not many Alderneys yet.
 2623. Are they crossing the shorthorn and other cows with Jersey bulls? Yes.
 2624. Is it recognised in the district that the Jersey is the best dairy cattle? It is.
 2625. You have not far from here a breeder of Jerseys—Mr. Brown? Yes; one of the best, I believe.
 2626. Are the farmers buying bulls from him? Yes; some of them have stud bulls from him.
 2627. You think the farmers are aware of the fact that if they want to breed and secure good crosses, they must always breed from pure-bred sires? They are alive to that fact.
 2628. Have you ever been down the South Coast? Not for twenty years.
 2629. Do you know that the Jersey, or the Alderney, as you call it, is unpopular in the South Coast? I am not aware of that fact; it is against the book knowledge if such is the case. I have always read that the Jersey cattle are much superior in giving milk and for butter-fat, but for killing purposes the Jerseys are certainly deficient.
 2630. But I mean that, to secure the best milking results, they must always cross the ordinary cattle with pure-bred Jersey bulls and not half-bred bulls? That is what I understood you to mean.
 2631. Is yours the only butter factory in this neighbourhood? It is.
 2632. How many creameries are there? In this district the butter factories have no creameries attached to them; they depend on the farmers themselves possessing separators and sending in their cream from the farms.
 2633. I suppose the larger dairymen all have separators? Yes.
 2634. And they bring the cream into you? Yes.
 2635. What is butter-fat worth at the present time in your district? We pay 12½d. here.
 2636. That is an unusually high price, is it not? It is.
 2637. That is, I suppose, owing to the fact that butter has gone up very much in the market? Exactly so.
 2638. Is it likely to maintain that price? Yes, it will maintain that price for some time to come; in fact, I believe that it will go higher.
 2639. And, of course, the higher price in the winter makes the farmers return them pretty well equal to his summer return? Quite so. My experience is not very far-reaching; but in the later fortnights the return to the farmers has nearly doubled itself as compared with what it was in the few fortnights we had in the summer.
 2640. How many cows are milked in the district? I have no idea.
 2641. Who is considered the largest dairyman? The largest dairyman we have on our books is Mr. Samuel Smith, of Bandon Grove.
 2642. How many cows does he milk? I think he has about forty cows in milk now.
 2643. You are aware that on the south coast they have immense establishments of this kind? I am.
 2644. Kameruka, for instance, milks 1,300 cows? Yes.
 2645. And several other establishments milk from 500 to 750 cows? Yes. I know the factory system is more extensive on the south coast.
 2646. It has only been quite recently established here, I suppose? That is so.
 2647. Is your market Newcastle? No; it is Sydney.
 2648. You are connected with some Sydney firm, are you not? Yes, A. M'Arthur & Co.
 2649. You send all your products to them? We do.
 2650. You sell nothing locally? No, except to the storekeeper.
 2651. There is a large butter factory also in Newcastle? Yes. Mr. Ireland is operating there.
 2652. Is much cream sent from this district to Newcastle? Yes.
 2653. Is much cream sent from the lower part of the Williams River now? Yes.
 2654. Is there any butter factory there? No; there is not.
 2655. But there is a public creamery, is there not? Yes; Mr. Frederick Lowe is the proprietor.
 2656. Do you think that there is likely to be a factory established there? I could not say. We endeavoured to start the factory now held by Skillen and Walker some years ago. 2657.

2657. Do you think that your establishment is large enough to do with all the milk produced in this district for some time? Yes. W. O. Skillen.
2658. What can you manage to manufacture at your best? With the appliances we now hold we could manufacture from 7 to 8 tons per week—that is, working during the day only. 8 May, 1898.
2659. And I suppose that your factory is so built that you could extend it if you should wish to do so? Yes, it is.
2660. So, as the trade demands it, your premises will be extended in proportion? We could put in the necessary machinery; we have the buildings already.
2661. You have been residing here for some years? Yes.
2662. Will you tell the Committee what your own impression is about the proposed railway—first you might apply it to your own industry;—what particular advantage would the dairy-farmer gain by it—for you say the district will soon become largely a dairy-farming one? The dairy-farmer would have this advantage: he would have other firms to whom he could send his products in a couple or three hours, and so have competition with his own town.
2663. Whereas now he is in your hands? Exactly so.
2664. What would he and what would you gain in advantages of rapid transport and reduced rate owing to the construction of the railway? I question if we would have any reduced rate by the railway coming to Dungog so far as that product, or, indeed, any other product, is concerned. We might have quicker transit; that is all we would gain.
2665. You would have quicker and more certain transit? Yes.
2666. But you doubt if you would have cheaper? I am certain we would not have cheaper.
2667. What effect do you think the construction of this railway would bring about? It might improve the timber trade, and, if it went further, it might open up some of the A. A. Company's land, and I do not believe there is any better land in the Colony for dairying purposes.
2668. I should like you to deal with Dungog and its immediate surroundings first? I do not think it would benefit Dungog proper in any way except as regards quicker and more certain transit.
2669. Do you think it is desirable that the whole of the trade of the Colony should be concentrated in Sydney? I do not think it is at all desirable.
2670. Would not the construction of this line have the effect of depriving Clarence Town and Newcastle of part of their existing trade? Certainly it would.
2671. And still further congest the trade in the great metropolis? It would.
2672. And that is a thing you do not approve of? I do not. I believe in decentralisation rather than centralisation.
2673. You foresee no immediate gain to this district from the construction of the proposed railway? Not to Dungog proper.
2674. What is the opportunity around Gloucester and Stroud for increased settlement, and what is their present means of transport? Their present means of transport is by bullock-dray or horse-waggon.
2675. To where? To Dungog or Raymond Terrace.
2676. Raymond Terrace is their port? I think it is their principal port.
2677. They convey their produce to Raymond Terrace, and thence it goes by steamer down the river? Yes.
2678. That is their only means of transport at present? Yes.
2679. Can you give us any idea of the road-freight between those two places and Raymond Terrace? I have no idea.
2680. The population both of Gloucester and Stroud is very limited, is it not? I think so.
2681. Is there good land around about both those places? There is good land around Gloucester. I do not believe there is better land in the Colony than that.
2682. Part of that is the A. A. Company's? I think it all belongs to that company.
2683. There is some Church and School land pretty close, is there not? I do not think there are any Church and School lands near Gloucester; they are a good bit west of Gloucester.
2684. Do you think it is right, in the interests of the State, to construct a big public work at a large cost and allow a corporation, which paid nothing at all for their land, to reap large benefits from it? I would raise my voice against anything of the kind.
2685. Do you agree with previous witnesses, that before an attempt should be made to construct a railway through the A.A. Co's., land the Government should arrange with that company either to take over their land or for them to sell it at a certain fixed rate? I think it should be done, more especially if it is a fact that a 4s. 6d. tax is all we get from it.
2686. You think it would be unfair of the State to tax the ratepayers in order to construct a railway which would go more directly to benefit the A.A. Co. than anybody else? I do so emphatically.
2687. Is the land around Gloucester good for all purposes? I think so.
2688. *Mr. Fegan.*] You say that you send your butter to A. M'Arthur & Co.? Yes. They are interested in the business with us.
2689. You do not sell any in Dungog? We sell it wholesale to the storekeeper and retail it to our own customers.
2690. Can any persons become your customers? Yes; private individuals can come to our own store for it.
2691. And those people can buy it at your own store the same as at any other store? Yes.
2692. What machinery have you? We have the latest type of machinery. We have refrigerators, temperators, churns, butter-workers, &c.
2693. If the proposed railway were constructed would you send your butter by rail—I suppose that would depend on the charge? It would also depend on the seasons. In cool seasons we would send it by water, that being the cheapest carriage.
2694. So the construction of this line would not help you very much? Very little indeed.

John Alexander Jones, butcher, and alderman of Dungog, sworn, and examined:—

2695. *Mr. O'Connor.*] How long have you been here? About thirteen years.
2696. Will you in your own way tell us your reasons either for or against the construction of this railway? I think that, considering the large expense to which people in this neighbourhood had been put to for many years in opening up the country, they are entitled to certain benefits, and amongst those benefits would J. A. Jones.
28 May, 1898.

- J. A. Jones. would be railway communication. It would certainly induce people to take up lands that are now waste from some of the landowners. This district is admirably adapted for fruit-growing, but it is entirely useless as a fruit-producing district at the present time; however, if the proposed railway were constructed, I think that very large orchards would spring up in the locality.
- 28 May, 1898. 2697. Do you produce any grapes in this locality? Very little; but they do well.
2698. Do you think that they would attain the proportions of a wine industry here? There was such a thing here some years ago.
2699. You think that if the proposed railway were constructed it would increase settlement, and more land would be taken up? Yes.
2700. And that would diminish the estimated large annual loss to the State from this railway? I think so.
2701. How far does your knowledge of this country extend? As far as Copeland and Gloucester.
2702. Is the country around there good? Yes. Around Gloucester it is particularly good—splendid agricultural land all along the rivers. I deal largely in pigs. I send a great many to Sydney. The transit to Sydney is not very expensive. I can get them taken from Clarencetown to Sydney at a cost of 1s. 6d. each. The only inconvenience is that they are shipped at 9 a.m. at Clarencetown, and do not reach Sydney till the following morning, whereas with railway communication we could send them down in much less time.
2703. *Mr. Fegan.*] Do you think that you could get your pigs to Sydney for 1s. 6d. by rail? I have no idea.
2704. Have you ever sent any pigs to Newcastle by rail? I have not.
2705. Or by water? We must send them by water; there is no other route. If you send five or six large pigs they charge you a little more, but the difference is very little; for less than twenty and larger pigs they charge you a little more.
2706. You send no cattle? I have sent calves by steamer.
2707. How long since? I sent only one load.
2708. Why? The freight was too heavy;—10s. or 11s. per head.
2709. Then you had nothing left? Very little indeed.
2710. So the reasons you have given to Mr. O'Connor are your chief reasons for looking with favour on the proposals now before this Committee? Yes; there are a good many reserves somewhere on the line which might be opened up. I have no idea what they are like or where they are situated, but there are very large reserves and I think very great timber reserves, and in my opinion the timber industry would be much augmented if there were a railway.
2711. Do you think they would send timber by railway instead of by boat? I should think so.
2712. Is it not a fact that wherever people can get water-carriage for timber they send it by water in preference to sending it by railway? That may be the case, but I do not know. We know nothing about railways in this locality, and only something about water.
2713. The Commissioners could not rely on a great return from timber? No; I grant that.
2714. *Temporary Chairman.*] Then in general terms you think that the people of this district should have the best means of communication the Government can give them? I think so.
2715. And that is a railway? Yes.
2716. Do you think the country would be justified in expending the large sum estimated for the construction of this line? I did not say that exactly.
2717. To make a railway from Maitland to Taree practically means the expenditure of £1,000,000;—do you think that the possible progression of the district and its increased population would justify the State in spending that money, because you believe that sooner or later the State will be recouped for its outlay by increased settlement? It would take a considerable time to increase settlement, but sooner or later it would happen. I am in favour of the Mayor's suggestion in reference to the A. A. Co.'s estate. I think it would be wise if the Government could secure that land previous to the construction of the railway.
2718. But you would not recommend the arbitrary resumption of that land? No.
2719. You think that before a railway should be made through the A. A. Co.'s enormous estate some arrangement should be made between the Government and them by which the Government should take their land at a fair valuation or the company should sell it to selectors at a moderate price? Yes; I think it would be advantageous to the Government in the end to buy it.

MONDAY, 30 MAY, 1898.

[The Committee met at the Court-house, Stroud, at 3 p.m.]

Present:—

FRANCIS AUGUSTUS WRIGHT, Esq. (TEMPORARY CHAIRMAN).

The Hon. DANIEL O'CONNOR.
JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Charles McDonnell Stuart, Supervising Engineer, Railway Construction Branch, Department of Public Works, sworn, and examined:—

- C. McD. Stuart. 2720. *Mr. Fegan.*] You have been over the route of the proposed railway from Maitland to Taree? Yes.
- 30 May, 1898. 2721. Would you mind describing in the first instance the country from Maitland to Dungog? The proposed line leaves West Maitland about 1 mile to the west of the West Maitland railway station on the main northern line. It then takes a northerly direction, and after passing over some fairly good country it crosses the Hunter River. It then skirts the northern side of the upper road between West Maitland and Paterson, along the edge of the high country, so as to keep out of flood-ground and avoid crossing any swamps or places of that description.
2722. Is that the reason why it is so far from the main road? Yes. The main road the Committee came out by is on the eastern side of the Paterson River.

2723.

2723. But another idea was to keep away from navigation? When you reach Paterson you strike the Paterson River at the head of navigation, but you keep above it, and after leaving Paterson you go practically in the same direction, due north, and cross the Wollarobba Range at a low point close to where the main road crosses. The line then runs from that in the same direction, still through broken country, till you come to within about 3 miles of Dungog. The line then bears in an easterly direction in order to avoid a fairly high ridge, and it turns back to its old course and runs between the township and the river Williams. C. McD.
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2724. You have been in Court and have heard witnesses say that a light line could be constructed there? Yes.
2725. The amended estimate was based upon your further report upon this line? Yes.
2726. It has been reduced from £1,209,000 to £982,000? It is principally owing to the decreased cost of works; that is the principal alteration made in the estimate.
2727. Has not some slight alteration been made in the route? It is practically the same route.
2728. You have heard witnesses say that a line could be constructed for a much smaller sum than is proposed, viz. £8,440 13s. per mile? Yes.
2729. After carefully going through the estimate, do you think that anything like a large reduction could be made in the cost of constructing the line? I do not think so, for a line of the same gauge. I do not think it would be a fair thing. You would have to bring in much heavier grades which would not be at all suitable for a line which ultimately will be a main line, if it is ever constructed.
2730. You say there was no deviation of route? The estimate was decreased because of the reduced cost of material and labour, both material and labour being cheaper than they were when the original estimate was made.
2731. Have you any idea how many bridges you would need on that first length of the line? There is a large bridge over the Hunter River and there is a large bridge over the Paterson River, and then of course every gully that you have to cross requires either a culvert or a bridge, and the country is so broken that it necessitates a great number of bridges.
2732. The revised estimate for the line between Maitland and Dungog contains these items—earthworks, £78,024 1s., culverts and timber bridges £22,922 1s. 6d., or at the rate of £669 per mile? Yes.
2733. Large bridges—No. 3—£52,707 6s.;—is that for a bridge over the Paterson? I think that that item includes both the Paterson and the Hunter River bridges. The Hunter bridge is a much larger bridge than the Paterson bridge.
2734. Have you any idea what the average grade will be from Maitland to Dungog? If I remember correctly it is worked out for a 1 in 60 grade.
2735. That is all through, is it not? Yes.
2736. I meant between Maitland and Dungog? I think the 1 in 60 grade comes in between Maitland and Dungog—I am almost certain it does in the approaches to the culvert on the Wollarobba Range.
2737. After careful consideration, and having had an opportunity of seeing the various estimates for the various sections, you think that the line cannot be constructed much more cheaply with a 4 feet 8 inch gauge? I do not think it can, and get a good grade.
2738. Would you mind describing the country from Dungog to Gloucester? The country there is very much the same as the country that preceded it? After you leave Dungog you go in the same direction. The first range you cross is the Monkerai, and there you have to have a tunnel to go through it, and long approaches. Then you follow down Ram Station Creek until you get to the Karuah River. The Karuah River is crossed about 5 miles to the west of Stroud. After crossing the Karuah River you cross the main road to Gloucester, and you follow up the valley to Johnson's Creek. This valley you follow up almost to the head of the creek. Afterwards you cross the "divide"—which is very low—between Johnson's Creek and Avon Creek. You then follow the valley of Avon Creek for a short distance, and then turn round to the back of Gloucester—that is, on the east side of Gloucester.
2739. It is estimated, as you know, that the section from Dungog to Gloucester, which you have just described, will cost on the average £7,572 12s. 8d. per mile? Yes.
2740. Where do you commence your tunnel? It is a fairly short tunnel.
2741. Six hundred and forty-seven yards? Yes. It goes through the range a little to the right of where the main road crosses.
2742. Do you think that the estimate is rather large—£23,093 for 647 yards—as labour is at present? No; I do not think so. The cost of tunnels is close on £50 a yard.
2743. You intend to brick it, I suppose? Yes, it will be all lined.
2744. What weight is the heaviest rail you use in railway construction? The estimate in this case was made out for 71½-lb. rails.
2745. But you do use an 80-lb. rail? Yes, on the main line where there is very heavy traffic, and on the lighter lines we use a 60-lb. rail.
2746. So you say that a good average would be a 71½-lb. rail? Yes; even if a 60-lb. rail were used, that would not materially alter the cost of the line.
2747. Considering the grade, which is 1 in 60, and the various earthworks in connection with the proposal, you could not recommend a lighter rail? Not less than a 60-lb. rail.
2748. I meant a 71½-lb. rail? Yes; I think you could use a 60-lb. rail so long as the traffic was not very heavy.
2749. But that would mean that in the long run you would have to take up the 60-lb. rails and put down heavier rails if the traffic should increase? Yes; but that would mean a matter of some years, for the 60-lb. rails would probably carry the traffic for a long time.
2750. Considering the average traffic in this district, what would the life of a rail be? I could not say, because we do not know to what extent the traffic would increase, but I should think that a 60-lb. rail would carry the traffic for the life of the rail. The traffic would not increase to too great an extent for that.
2751. Would you mind describing the third section—that is, from Gloucester to Taree? After leaving Gloucester on the east side you bear in a rather more north-easterly direction. You cross the Avon Creek close to its junction with the Gloucester River. You follow down the right-hand side of that river until you strike the Barrington River, and you follow the Barrington River down almost to where it joins the Manning River. You cross the Manning a short distance below its junction with the Barrington, and then you follow down the northern side of the Manning River, through very broken country, to Wingham.

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2752. Would you mind describing that broken country? The country is so broken that, if I remember correctly, there is to be a short tunnel in it. It has spurs, to a great extent, from a range at the back. The country all down the Barrington is very much broken, too. There is a tunnel in it. After passing Wingham you get into easier country, until you get to Taree, where the line terminates.
2753. The last section of the proposed line seems to be heavier than either of the other two sections, inasmuch as the estimated cost per mile is £9,784 6s. 4d.? Yes. The reason for that is that you have the Avon Creek to cross. It is pretty wide there owing to the flood-country, and you have a heavy bridge over the Manning River; and, owing to the broken nature of the country down the Barrington, you have a short tunnel there through one of the spurs, and you have another tunnel between the Manning River and Wingham. You have two tunnels and two considerable bridges on that length.
2754. The length of those tunnels is 629 yards, and the estimated cost £23,393? Yes.
2755. Culverts and timber bridges and large bridges—No. 4—and over-bridges will come to something like £90,000; the earthworks seem to be the heaviest item? The earthworks are the principal item, because the country is so very broken.
2756. Taking the whole estimate, £982,000, do you think that the item "Engineering and contingencies at 12½ per cent." is too high, for it amounts to £109,141? I do not think so. There are so many items that have to be taken into account that are charged against the line. There is all the preparation of the plans, and everything connected with the office, as well as the actual supervision of the work on the field. All these items are forgotten as a rule, but they are now taken into consideration, and that adds very much to the expense.
2757. So you think 12½ per cent. is a fair proportion to set aside for that? I think so.
2758. Along the route of the proposed line, have you a good supply of timber for sleepers, bridges, and crossings? There is a fair supply of timber for sleepers, but there is not much of what I call first-class timber that would do for big bridges. You can get timber for the smaller bridges. For the large bridges I think the timber would have to be brought from a distance.
2759. Have you any idea how far that would be? I cannot say, because they would probably take it from where it could be most conveniently brought, for instance, by train. For the Namoi Bridge the timber has had to be brought a long distance from the coast.
2760. Which coast? Between Newcastle and Sydney—somewhere near Gosford.
2761. So that whilst you may have timber for sleepers for the total length, it would be very difficult to get timber for large bridges without going a great distance? Exactly. The timber may be in the district, but it may be such a distance from the line that it would cost more to bring it than it would cost to bring timber from the nearest station.
2762. The estimate has been made on the supposition that you cannot get timber near? For the large bridges.
2763. At any rate, if you could the difference would be very little? Yes. We have taken an average price.
2764. Is there any possibility of getting a route which would serve the district so well as the one now before the Committee, and along which the railway would be much cheaper and easier of construction? I do not think so. I think the route at present taken goes through about as good country as you could get, and it cuts all the rivers above navigation, which is a very important consideration.
2765. And goes as near to the centres of population as possible? Yes; you can tell that by the towns it goes through.
2766. So that, considering present prices, which you say are very fair—and considering the amount of labour at the Department's disposal, and the low rate of wages that are paid—you think there is no possibility of cutting the cost down much below the present estimate? I do not think so—at least, not to any material extent; and there are many extra items that always turn up afterwards, so that ultimately a line generally costs as much as the estimate.
2767. The estimate of £982,000 does not include payment for the resumption of any land for the construction of the line? No, it does not.
2768. It comprises merely the engineering items? Yes.
2769. Therefore, it would be safe to say that before the line be completed it must cost over £1,000,000? I think you can safely say that.
2770. What is the total length? 113 miles 66 chains; and the ruling grade is 1 in 60.
2771. What are your chief curves? The curves are pretty sharp. I think they go up to a 12-chain radius.
2772. That is rather a sharp curve? Yes.
2773. What is the average curve on the main trunk lines? The main trunk lines have been constructed a long time, and you get a 12-chain radius upon them; but the Commissioners are trying to cut out as many as they can.
2774. I want to know what would be a good working curve? I think from 15 to 16 chains radius is about as sharp as I care about to go at any high rate of speed. It very much increases the cost to get that radius at times.
2775. What would you have to tunnel through;—has the ground been tested? No, it has not been tested. But I should say that in all cases it would be rock; the exact description of rock I cannot tell.
2776. As regards the cost, a great deal would depend on what kind of rock you would have to tunnel through? Yes. Of course, if it were very hard rock the tunnel might do without lining; but I do not think that it will.
2777. In the estimate for your tunnels and your bridges have you made any provision for a double line? No.
2778. You have made no provision for a double line? I am not sure about the bridges; they may be for a double line.
2779. But you do not think they are? No; I do not.
2780. And you are sure that the tunnels are for a single line? I am almost certain they are for a single line.
2781. That, therefore, has to be taken into consideration? It has, of course.
2782. It means, in the extension of this line, if traffic should increase very much, a much larger expense in making provision for a double line? It does, certainly.

2783. *Temporary Chairman.*] There are many sharp curves in this line? There are a good many.
 2784. And some pretty steep grades? Yes; 1 in 60 is the steepest grade.
 2785. Sharp curves affect the life of a rail considerably? Yes, because of the friction on the curves.

C. McD.
 Stuart.
 30 May, 1898.

Charles Percy Thomas, solicitor, Stroud, sworn, and examined:—

2786. *Mr. Black.*] How long have you been a resident here? Five years.
 2787. Do you know the route that is to be taken by the proposed railway? I know most of it from Wollarobba to Gloucester.
 2788. Are you of opinion that the direction taken by the railway under the circumstances, is such as will best serve the district? It would tap the greatest amount of traffic, though it would hardly be the cheapest, and would not be over the most even country.
 2789. How far is this town from the head of navigation? About 12 miles.
 2790. At which point? The new wharf below Booral, on the Karuah.
 2791. Which runs into Port Stephens? Yes.
 2792. Is that the port of shipment for the produce of the district? It is now, for most of it. Raymond Terrace has been hitherto, but I think the principal quantity goes the other way now.
 2793. How far is Raymond Terrace from here? Thirty-one miles.
 2794. On what stream is that? It is on the Hunter.
 2795. Is the traffic which goes to Karuah River for shipment served by vessels as large as those that trade to Raymond Terrace? No; only very small vessels get up to the Karuah wharf.
 2796. What are they—droghers? No; the small coastal steamers. The "Williams" from Newcastle is about the largest.
 2797. Does she go right up? Yes.
 2798. And tranships? No; the "Williams" as a rule goes right down to Newcastle.
 2799. Is she large enough for the requirements of the trade? She appears to be so at present.
 2800. How often does she run backwards and forwards? Once a week I believe.
 2801. She leaves this end once a week? Yes.
 2802. What are the principal outgoing products of the district? Wheat and maize and timber—that would be cedar from beyond Gloucester.
 2803. Do you grow enough wheat here, not only for your own wants, but sufficient to leave a margin for outside sale? Yes, there is a margin for outside sale. Of course all the flour consumed here is not grown locally.
 2804. Where do you get your flour from? Newcastle.
 2805. You have not a mill here? No. At Dungog there are mills to which a great quantity of our wheat goes.
 2806. Have they got over the difficulty of the rust in this district? For the last two years there has been no rust. There was a considerable interval when they did not grow wheat. Since that interval the rust has not appeared.
 2807. You have no idea of the tonnage of the vessel you mentioned? No, I have not.
 2808. You are aware of the course the railway will take when it nears Stroud? By the Washpool is where it crosses the river, I believe.
 2809. You are aware that it will not come within 5 miles of this town? Yes.
 2810. Then, so far as the construction of the railway is concerned, your position as regards intercourse with the outside world will not be very much improved? Not very much—not from here south-east. The settlement trends south-east from where the line crosses.
 2811. How do the people who visit Sydney or Newcastle travel? They go by road to Raymond Terrace and thence by steamer, or they catch the train at Hexham.
 2812. They do not drive to Maitland, as a rule? Not as a rule. They do occasionally; but the general practice is to go to Raymond Terrace, or to Hexham, and thence by train to Maitland, Newcastle, or Sydney.
 2813. I suppose that if the railway were brought within 5 miles of this town they would use it? Yes; I am sure of it. Certainly the town-people would.
 2814. Have you any idea as to the freight by steamer between here and Newcastle, or between the nearest point of shipment from here to Newcastle? No; I cannot speak exactly as to that.
 2815. How is the main portion of the land around here utilised—as pastoral or agricultural? As agricultural along the river, and as pastoral at the back.
 2816. As agricultural along the river flats? Yes.
 2817. They are very limited in extent, are they not? Yes, they are; they do not go very far back from the river.
 2818. I suppose, then, as a rule, there is not more than from 1 mile or 1½ mile to 2 miles on either side of the river? No, taking both sides.
 2819. Do you think that if the railway were constructed there would be any large increase in the number of those following agricultural pursuits in this part of the country? Not in this immediate neighbourhood.
 2820. On any other portion of the route intersected by the proposed railway? I think that up Gloucester way there would be—that is, the Barrington and the country around there.
 2821. From Gloucester to Taree, do you mean? Well, off the line to the north-west, I think there would be a considerable increase.
 2822. On the north-west side of the line? Yes; from Gloucester.
 2823. You know that the proposed line is estimated to cost altogether £982,283? Yes.
 2824. It will cost somewhere about £9,000 per mile;—do you think under the circumstances that such an expenditure would be justified? I do not think the returns from this immediate neighbourhood would justify it up to this point—that is, speaking only for this immediate neighbourhood.
 2825. Do you think the returns between West Maitland and Dungog would justify it? Well, the returns from the Dungog District would be very much larger, but I can hardly say definitely.
 2826. If there be a loss on the 71 miles which lie between West Maitland and Gloucester, do you think there is any likelihood of there being a recoupment from the third section of the line which lies between Gloucester and Taree? I think the largest amount of traffic would come on to the line at Gloucester—
 from the west and north-west. 2827.

C. P. Thomas.
 30 May, 1898.

- C. P. Thomas. 2827. But it is hardly possible that a line which is to be 113 miles 66 chains in length could be made to pay because of the traffic which would reach it at one point? I do not think that it will pay; but I think that is where the line will tap the most traffic.
- 30 May, 1898. 2828. Do you not think that this portion of New South Wales would be in the meantime amply served if the Government went on with those proposals for the improvement of the rivers which are now under consideration? I think it would as it is now, or as it promises to be in the near future, except that part that I speak about. I think that is the one locality that would be really benefited by the railway.
2829. But you see that it would be impossible to construct that portion of the railway, for the benefit of the district, without connecting it with the Northern line? Yes.
2830. You cannot consider that part by itself, because it is at the wrong end? Yes.
2831. How is the land held about here? All the cultivation is in the hands of private owners; they purchased it from the A.A. Company—almost the whole of it.
2832. Do you know what they paid for it? I cannot say from memory.
2833. Can you say approximately? I think they put the cultivation land at about £15 an acre approximately, and the pastoral at 30s.
2834. Will it pay to buy agricultural land here at £15 per acre? That would be improved land—not the rough unimproved.
2835. What would be the nature of the improvements? It would be cleared and fenced.
2836. No buildings? No.
2837. Is that not rather a high price? They maintain a high price for all their holdings, and it keeps the price of private holdings up.
2838. But, of course, what a man who invests his money in land pays for the land is an item in the cost of the product he raises, is it not? Yes, certainly.
2839. And the percentage of cost lessens the percentage of profit? Yes, certainly.
2840. Well, then, how is it that, in a district comparatively speaking far from market, settlers can afford to pay such prices for land if in other districts equally fertile and so much nearer market £15 per acre would be considered a prohibitive price? Well, there is not a fortune in farming in this district, and they have estimated the improved cultivation land on the bank of the river at £25 per acre. In making out the land-tax return they have estimated the unimproved at £5 and the improved at £20, in many cases, for back-country cultivation.
2841. It seems a very high price? Yes.
2842. The settlers here are chiefly old residents, or the sons of old residents, are they not? Nearly all of those about here.
2843. They are not people from other parts of the Colony? Most of them are not; the great majority are old-settled inhabitants.
2844. And perhaps they are disposed to pay a higher price because of the associations? Really very few agricultural properties have changed hands within the last five years. I do not know of any case where the associations have come into consideration in connection with the price, for very few have changed hands within the last five years.
2845. It may be that those values are, after all, purely paper values? Yes, it may be.
2846. And that, if farm property were sold now in the open market, it would not bring those prices? Very likely not. The properties that have been sold have been particularly wanted by the purchasers.
2847. You have had no instances of compulsory sale, have you? None.
2848. If that be so, then perhaps the true basis of assessment has not been made evident? Probably not.
2849. Have you seen any growth or progression in the town or district whilst you have been here? Dairying has started and grown to a certain extent since I came here, and wheat-growing is something fresh since I came here. The rust compelled them to discontinue growing wheat some years ago, and they have started again within the last five years.
2850. There is a creamery in connection with a sawmill near here? Yes.
2851. Do you know anything about the weekly output of butter? They do not make butter; they send the cream away.
2852. To where do they send the cream? I believe to Ireland's, at Newcastle.
2853. Do they send it by steamer? By coach to Raymond Terrace, and thence by steamer to its destination—whatever it is. Several private individuals have separators of their own.
2854. Referring to grazing land, have you any idea of the number of acres that go to a beast in this locality? Most of it is very poor indeed, and you can hardly form an estimate. The bush country is almost too poor to carry cattle at all—the major portion of it—that is, to the east of the town.
2855. Yet it brings 30s. an acre? That nearest the town does. It wants a lot of improving to be of much good.
2856. Is much of the timber about here rung? Not a great deal of it. You can see almost all that is rung from the town or from the road.
2857. How does the cattle raised here get to market? It is driven.
2858. Driven to Maitland? Yes, to Maitland—through Dungog, as a rule.
2859. Have you ever known a drought here since you have been in the district? Yes.
2860. In what year? I think that in the winter of 1895 there was the worst drought we have had.
2861. Was it very severe? It was a severe drought.
2862. As a rule, the rainfall here is very heavy? Yes.
2863. *Temporary Chairman.*] Can you give us any idea of the amount of tonnage that goes in and out of Gloucester in the year? No, I cannot; there is not a large amount now. Excepting cedar, and cattle which are driven, there is not a great deal.
2864. Practically, I suppose there is nothing sent out except live stock and timber? Yes, and cedar—no hardwood from that direction.
2865. The timber goes to Booral, I suppose? Some to Booral, and the other to Raymond Terrace or Dungog.
2866. Just as the market offers, I suppose? Yes.
2867. And the cattle go to Maitland? To Sydney in a few instances, but to Maitland principally.
2868. Have you any idea of the population of the district in the immediate vicinity of Stroud? I suppose about 400.

2869. It is returned by the Government Statistician at 300? Well, between 300 and 400—that is, in the C. P. Thomas immediate vicinity of Stroud.
2870. And the occupation of the inhabitants is purely pastoral? Almost entirely agricultural here; but ^{30 May, 1898.} in the Gloucester district it is pastoral.
2871. That is, on the flats of the river it is agricultural? Yes. In reference to the value of the land, I may mention that what I have stated is only approximate. I could find out exactly, perhaps, what farms have changed hands since I came here, if you thought it material enough.

Gordon Lancelot Andrews, bank manager, Stroud, sworn, and examined:—

2872. *Temporary Chairman.*] You are the Manager of the local branch of the Bank of Australasia? Yes. G. L. Andrews.
2873. You are also representative of the A. A. Company? Yes. I receive their rents here. They are paid into the bank. 30 May, 1898.
2874. Can you give the Committee any information as to the area of land held by that company, say, within 15 miles of Stroud? I cannot tell you that; but I think they own about 500,000 acres in the district.
2875. I mean the areas within 15 miles of Stroud? I cannot say, because so much of it has been sold.
2876. What portion of the land have they alienated—the better or the inferior land? Some of each, except up at Gloucester, and that is really the pick of the country.
2877. We will deal only with the country immediately round Stroud;—have they sold all the good land, say, within 10 or 12 miles round Stroud? No. I suppose there is lots of it not sold yet.
2878. Lots of good land still unsold? Yes.
2879. Can you give the Committee any idea what the company are asking for their agricultural land in this neighbourhood per acre? It varies, I should say, from about £2 to £2 10s.
2880. £2 10s. for the best? No; that is for totally unimproved land.
2881. I want to know the price for their best unimproved land? Taking Booral, for instance, 5 miles away, they are offering now some land at between £8 and £10 an acre.
2882. That is close to navigation, is it not? Within 4 miles.
2883. It is within a fairly practicable distance of a seaport? Yes.
2884. And it is good land too, is it not? Yes; it is good land. It is for a silkworm farm.
2885. Mr. Brady's place? Yes.
2886. Have they any improved vacant land they are offering for sale there? I think only about 15 acres.
2887. Then is the rest of the good land there alienated? Yes; it is all taken up there.
2888. Do the company lease land as well as sell land? They have sold land, and they have leased land as well.
2889. It is practically all in occupation except 15 acres? It has been, up to the last two or three months.
2890. What possibility is there of an augmentation of the population of this immediate neighbourhood if there is only 15 acres of good land available? I am speaking only of that one particular district.
2891. Is there any other good land which the company are prepared to sell or to lease within a reasonable distance of Stroud? I consider there is very good land within a short distance of Stroud that is leased at present.
2892. Have the company still in their own possession unsold or unleased any quantity of good land in the neighbourhood of Stroud? No; I should not say they have—no improved land at all.
2893. Well, good land in its natural state—good land not improved? It would have been snapped up before now if there had been.
2894. I gather from that that the chance of increase of population in this neighbourhood, even if better facilities be given, is considered hopeless? Yes; that is true. I do not think that a railway would better this place at all. It would better the district farther north, nearer Gloucester.
2895. You believe that Stroud has seen its maximum prosperity? I think that a railway near Stroud would not improve it, but that if the railway went beyond Stroud it would take everything with it.
2896. Instead of improving the little town of Stroud, it would destroy it? Stroud was better fifty years ago than it is now.
2897. It was a small trading centre fifty years ago, I suppose? Yes; and it had a larger population.
2898. The opening up of the country and the establishment of other towns have deprived this place of its principal source of revenue? Yes; and its having always been looked upon as a private town.
2899. It was fenced in at one time, was it not? It had a gate at each end.
2900. Well, supposing the Government were to determine to resume the A. A. Company's property, or were to make some arrangements with them to buy it at a reasonable price and offer it again for occupation at reasonable prices, do you think that then the population would be likely to increase at all largely? I do not know that it would here, but it would up at Gloucester.
2901. We are dealing now principally with Stroud and neighbourhood—do you represent the company also at Gloucester? No; I am not their representative there. I merely take their rents here and live on the premises.
2902. As bank manager you receive their rents from tenants? Yes.
2903. And notify the company when the tenants do not make their payments? The company notify me.
2904. Your agency simply consists of that? Yes.
2905. Can you give the Committee information to strengthen the claims of the district, or, say, the claims of the entire coast district, for railway communication; you say that the railway would not benefit Stroud, but would possibly injure it;—what is your opinion of the proposed railway, looking at the district generally along the north coast to Taree? I dare say it would be of great benefit to the northern part of it and to Dungog.
2906. You think it would be of benefit to Dungog? Yes; I believe it would benefit Dungog.
2907. The people there do not appear to think so? I thought they were very strongly in favour of it. They seem to have a very powerful railway league there.
2908. You think it would be beneficial to Dungog, but not to Stroud? I am certain it would not be beneficial to Stroud.
2909. What about Gloucester and the district beyond Gloucester? If the "Gloucester" estate were thrown open, the railway would undoubtedly be of benefit to Gloucester and district, and I believe that the land there would be very quickly taken up. 2910.

- G. L. Andrews.
30 May, 1898.
2910. *Mr. Hassall.*] How is the land principally held around here? It is occupied by the owners, who bought from the A. A. Co.
2911. Am I to understand from that, that the good land around Stroud has been sold by the A.A. Co.? Yes; but there is a lot of it leased as well.
2912. What is the proportion of freehold to leasehold land approximately? I cannot tell you, but I know that some of them have as much as 5,000 and 6,000 and 20,000 acres under lease from the A.A. Co., whilst some have only a few acres or a paddock.
2913. I presume that practically the good farm lands along the banks of the river—the flats suitable for cultivation—have been bought by private individuals from the A.A. Co.? Yes.
2914. Then there are large areas of grazing land, ranging in quality from medium to poor, and held, I suppose, in areas varying in size, under lease from the A.A. Co.? Yes.
2915. But the bulk of the land around Stroud belongs to the A.A. Co. still? Yes; the bulk of it certainly does.
2916. Judging from your reply to a question asked by the Chairman, I suppose that the traffic running through this place is one of its chief sources of revenue—that is, for tradesmen and others residing here? Yes.
2917. The traffic from the district around here passing through Stroud and going to Booral, the port of shipment, as regards products, for either Newcastle or Sydney, is one of the principal factors, for business people, in keeping the town going? Yes.
2918. With regard to another question asked by the Chairman, as to whether if the Government were to resume land owned by the A.A. Co. with the intention of disposing of it if possible, might I ask if you know whether the company are not in a position to offer equally as good terms as the Government would be, their land being freehold? That I could not tell you.
2919. But I presume anyone wishing to deal with the company could get fairly reasonable terms? Yes, anyone could get fairly reasonable terms. The company are most fair to deal with.
2920. And the company would offer every inducement to intending settlers if they thought fit to come and settle on any portion of their estate? Yes.
2921. Either as leaseholders or as purchasers? Yes.
2922. So that, practically, a private individual would stand almost in as good a position with the company as he would with the Government? Yes, I should say, quite so.

James McIntyre, storekeeper, Stroud, sworn, and examined:—

- J. McIntyre.
30 May, 1898.
2923. *Mr. Hassall.*] How long have you been a resident of the Stroud? Over forty years.
2924. Have you or your people been occupied in business here the whole of that time? Forty-three years.
2925. So, practically, you have been connected with business here during the whole of that period? Yes.
2926. What are the principal products of the district? Maize and wheat are the principal.
2927. Is there much wheat grown? There was the last two years, and for twenty or thirty years before the rust came a large quantity of wheat was grown.
2928. Why was its growth discontinued? On account of the rust.
2929. Were there any signs of rust in the crops grown recently? Not the last two years.
2930. What is about the yield? Twenty to 25 bushels to the acre; some more.
2931. Where is that wheat sent to? To Sydney principally.
2932. Have you any idea of the quantity produced in the district? No; I have no idea as regards the last two years.
2933. Have you any idea of the number of farmers who are growing wheat? From fifty to sixty, I suppose.
2934. Are any of them large holders? No; they are all small farmers.
2935. The other principal product, you say, is maize? Yes.
2936. That, I presume, is sent to Booral? Yes.
2937. And from there to Newcastle? To Newcastle, and sometimes to Sydney.
2938. What is the rate of carriage from here to Booral? 10s. per ton, and 8s. per ton from Booral wharf to Newcastle.
2939. The total cost of delivery in Newcastle is 18s. per ton? Yes.
2940. Is there much back loading in the shape of goods brought up this way? There is a good deal.
2941. What does a good deal represent? Five or 6 tons a week or more—perhaps 10 tons.
2942. Where is that principally distributed? Just around the town of Stroud. I am not talking about Copeland or Gloucester, but about the traffic that comes into Stroud.
2943. Do you find the district fairly well served by the steamer service to Booral and the road carriage from there to here? Yes.
2944. Do you think it would be possible for a railway to successfully enter into competition with the water and road carriage? I hardly think so.
2945. Your road carriage from here to Booral is 11 miles? Yes.
2946. And to the nearest point of the railway it would be 5 or 6 miles? About 4½ miles from here.
2947. That would be uphill carriage, would it not? Yes.
2948. And your road carriage from here to Booral is downhill carriage? Yes.
2949. So you would be able to take a heavier load from here to Booral than you would be able to draw uphill to the railway? I suppose the cost would be more by rail than by water.
2950. The cost of road carriage would practically be about the same. You could hardly expect to get goods conveyed from here to the railway at less cost than you would pay for conveyance from here to Booral? Oh, yes; I should think we would get them carried for half.
2951. Do you think you could get goods carried from here to the nearest point of the railway for 5s. per ton? Yes; I think so.
2952. Have you any idea of the country through which the line would pass? I have been over the greater part of it, I think.
2953. Can you give us any idea of the country lying between here and Gloucester;—the railway practically follows the course of the river, does it not? It leaves the river, but it crosses a number of creeks

2954. I want to know, first of all, the nature of the country along that water-course, and then the country lying back from it? For the first 17 or 18 miles it is nearly all taken up and occupied along the road, and further on it is reserved by the A. A. Co. for their own use. They will neither sell nor lease. J. M'Intyre.
30 May, 1898.
2955. What is the country lying to the east of the line? It is mountainous.
2956. Scrubby? Yes.
2957. And on the west side? It is mostly grazing land.
2958. As you get nearer to the coast the country becomes poorer and more mountainous, I presume? Yes.
2959. Do you look upon this as a fairly sound district? Yes, I do.
2960. Is it progressing at all? It has been at a standstill, but I think it is going ahead again.
2961. You heard the evidence given by Mr. Thomas and Mr. Andrews in regard to the prosperity of the place and its advancement, and you can practically corroborate their evidence on that point? Yes. Stroud was a more thriving township thirty or forty years ago than it is to-day. That is accounted for by so many more new roads having been made since then, and the traffic being now divided.
2962. The prosperity of the place was due in a great degree to the traffic that passed through it? Yes.
2963. I suppose that the Karuah River was the main shipping place for the district in those days? It was.
2964. But since new roads have been made in various parts of the district, and other shipping places have been made available, the traffic through here has gradually become smaller? Yes; it has drifted away into different channels. I may say that there is a great deal of trade done in poultry and eggs in the district.
2965. With regard to dairy-produce, it has been stated in evidence that there is now a movement in reference to the establishment of dairy farms on a larger scale, and there is a small factory already erected which separates the cream from the milk, and the cream is sent away to Newcastle or elsewhere? Yes.
2966. Are many people going in for that kind of business? I think that a great number of the settlers are going in for it—most of them.
2967. But the industry is practically in its infancy? Yes. It is not more than two years, I think, since it was started.
2968. Judging from what I have seen of the country I should imagine that it would be very suitable for dairying and butter-making purposes? Yes, more so than growing produce. There is not sufficient good land to enable a person to make a living from growing produce.
2969. Judging from what I have seen I should imagine that you may be able to cultivate the flats in addition to having a large area of grazing country which would enable you to have dairies established of considerable size? Yes. A lot of the hilly or grazing country would grow oats and barley, and things of that sort, which would come in for fodder.
2970. You think that would be a more profitable form of industry than that which has been followed in the past? Yes; it would pay best.
2971. And as people find that out they will go in for it? Yes.
2972. I presume the farmers are progressive, and that if they see a chance of turning their land to better use they will follow a good lead? They have been very slow, but they are waking it up now, seeing others elsewhere have done it, and they have succeeded.
2973. I should imagine that as people find the district is suitable for dairy-farming, and know it is a profitable occupation, there will be an increase of settlement? I do not think the land is available at present. It is mostly all taken up—that which is any good at all.
2974. Anything of any value is practically taken up? Yes, it is, until you get within 13 miles of Gloucester, and there the company refuse to sell their land. They keep it for a cattle run. The land there is superior to the land coming this way, and population would go there if that land were thrown open.
2975. The area of good land in the vicinity of Stroud is limited? It is all taken up.
2976. Whatever land is available is of poor quality, not sufficiently good, in fact, to induce people to go and settle upon it? Yes; they could not make a living upon it.
2977. *Temporary Chairman.*] I suppose that nearly all the goods of the district, or a very large proportion of them, pass through your hands? There are a lot of other people in business here besides myself.
2978. Can you give the Committee any idea of the quantity of stores received into the town during twelve months? I have never kept any account.
2979. Have you any idea what tonnage comes into, and goes out of, the place? No.
2980. You say the produce is principally maize and timber? Yes—timber from below.
2981. Can you give us any idea of the number of bushels of maize sent out of the district per annum? I could not; a lot of it is carted to Clarencetown.
2982. Which is your principal market? Newcastle.
2983. I suppose that your principal supplies comes from Newcastle, and your produce goes to there? Yes.
2984. Can you afford the Committee any information as to the quantity of maize sent away? No; I think that the steamer which carries it away keeps no account.
2985. If the railway were constructed, I suppose there is no possibility of its capturing the traffic that now goes to Booral? If the line were built where the survey has been made, I do not think that much of the traffic would go that way.
2986. The traffic would follow its present course—that is, by the water? Yes.
2987. *Mr. Fegan.*] Are your goods that come from Newcastle classified by steamer as they would be by rail—that is to say, if you are getting flour, or salt, or sugar, is a difference made at per ton or per cwt.? No.
2988. All one rate? Yes; excepting case goods, which are charged by measurement, but at the rate of 8s. per ton.
2989. What is the highest that you have paid? I think the highest I have paid has been about 12s. 6d.
2990. So that if the proposed railway were constructed, your goods would still go by water? I think so.

Andrew McNeill, butcher, Stroud, sworn, and examined:—

- A. McNeill. 2991. *Mr. O'Connor.*] How long have you been here? Thirty-nine years.
 2992. You have heard the evidence given this afternoon by the various witnesses? Yes.
 30 May, 1898. 2993. Would you kindly say if there is anything you would like to add to the evidence already given by the previous witnesses;—would you say if you are favourable or opposed to the construction of this railway? I fall in pretty well with their views. I may add that I think our dairying industry is on the increase, and that it will be more payable than growing maize. They have not done much in it yet, but they are improving.
 2994. You know this country well? Yes.
 2995. Do you buy your cattle? Yes.
 2996. Where do you buy it generally? Round about the place. Sometimes I go to Maitland. Maitland is our last resource.
 2997. You know the country from here to Maitland very well? Yes.
 2998. And from here towards Taree, how far? To Taree. I have been as far as Kempsey, but I know the country very well between here and Gloucester.
 2999. How would you describe the country between here and Maitland;—is it pastoral or agricultural, or both? Once you get off the river banks, there is not much agricultural country.
 3000. Do you know the route of the proposed line *via* Dungog as laid down by the Department? Yes.
 3001. What is your opinion with regard to the country, say 10 miles on either side of the proposed route? It is not of much good.
 3002. Are you speaking now with regard to the country between Stroud and Maitland or between Stroud and Taree? From Stroud to Maitland, within 10 miles of the proposed route. It is very hilly country. There is grazing land on it, but very little cultivation.
 3003. How is it north from here, towards Taree;—what is the quality of the country on either side within 10 miles of the proposed route? Very good grazing land.
 3004. Do you think that if a railway were constructed the people above this important locality would make use of it instead of utilising the rivers down to the ocean? I hardly think so.
 3005. You think it would be better for them to transport their products to the wharfs on the rivers, and send them from there in boats? I do not think they could get it done much more cheaply by rail.
 3006. You think the water-carriage would be cheaper? I fancy so.
 3007. And as a man of business and common sense it is, of course, your duty to avail yourself of the best opportunities to increase your profits, and to gain a reward for your labour? Yes.
 3008. Do you know that, according to the lowest estimate, made after very careful consideration on the part of the chief officers, the most expert men in the employ of the State, the least sum of money that would be required to construct a railway from Maitland to Taree would be nearly £1,000,000; and do you think that the country, from a national standpoint, would be justified in the construction of a line of railway which would start with an annual loss of £31,000? I do not think they would get it back for some time. If the land about Gloucester and the Barrington and further on were all thrown open, it would certainly be of great benefit to the people there, but the railway would not do us much good.
 3009. The Barrington is within 4 or 5 miles of Gloucester, is it not? Within 6 miles of Gloucester.
 3010. What are the principal industries of this district? Mostly maize and wheat-growing.
 3011. Do they produce any hay? They cannot send much away.
 3012. The productions are generally for home consumption? Yes, excepting that maize and wheat are sent away, and also live stock—pigs, fowls, and such things.
 3013. How do you send those to market? They all go by boat.
 3014. To where do you generally send them, Newcastle or Sydney? Mostly to Newcastle, but some goes to Sydney. I send my hides to Sydney. Hides and tallow go to Sydney, and maize, I think, goes to Sydney.
 3015. It is good grazing country about here? Not so good down here as it is further on upwards.
 3016. Are there any stations about here? Not within 15 or 16 miles.
 3017. North? Both ways.
 3018. What do they generally breed? Cattle. There are no sheep to speak of bred in this district—only a few for their own use.
 3019. Can you give the Committee any information as to the number of calves or pigs sent away from this district? A number of pigs are sent away, but not many calves. They do not go through here. Nearly all our stock turns off about 11 miles from Stroud, at what they call Weismantel's, and goes by Dungog to Maitland, but a number of pigs go through here. I suppose that more than 1,000 pigs a year go through from the Barrington and stations upwards.
 3020. They are sent to Booral, are they? No; they generally go to Raymond Terrace. They go down 150 or 200 in a mob, and our little boat would not be sufficient to take them.
 3021. From Raymond Terrace they go on to Newcastle? Yes; a good many go by Dungog, and also a quantity of stock from places above this town.

Thomas Sydney Magner, postal assistant, Stroud, sworn, and examined:—

- T. S. Magner. 3022. *Mr. Fegan.*] Are you acting-postmaster? Yes, at present, during the illness of the postmaster.
 30 May, 1898. 3023. How long have you been acting-postmaster? Nearly four weeks on this occasion. The postmaster has been ill nearly a month.
 3024. Have you any statistics with reference to the revenue from postage, telegrams, &c.? Yes. The revenue in 1896 was £361. In my opinion, there has been very little alteration since. The average number of letters posted would be about 21,300 per annum. There would also be about 875 registered letters besides those. I should estimate the telegraph collections at about £75 per annum.
 3025. Have you a statement of the revenue for 1897? No, I have not.
 3026. Have you a telephone in connection with your office? Yes, one.
 3027. Have you a return for that? No, I have not. We do very little in connection with it, and it would be very difficult to cull it out.
 3028. Where is your telephone? Only to Booral.
 3029. What is your charge? 1s. for a message of ten words—the ordinary telegraph rate.
 3030. Have you a Government Savings Bank attached to the Post Office? Yes.
 3031. Can you state the revenue received from that, and also the revenue received from money orders? Not separately.

Charles

Charles Westley Cripps, C.P.S. and Land Agent, Stroud, sworn, and examined:—

C. W. Cripps.
30 May, 1898.

3032. *Temporary Chairman.*] Can you give the Committee any information as to the annual revenue of your office? Yes; the total revenue in the Lands Office last year was £4,476.
3033. How much of that was obtained from conditional purchases and how much for leases? For conditional purchases there were seven applications received, and for survey fees and deposits £84 2s. 6d.
3034. What annual instalments are there on conditional purchases? £2,879 2s. 9d.
3035. And rents for leases? £473 15s. 5d.; auction sales, £208; annual leases, deposits, and rents, £522; and for homestead selections there were nine applications, and they embraced deposits and survey fees amounting to £85 in round numbers, whilst £22 was paid in regard to transfer of conditional purchases.
3036. You say there were nine homestead selections taken up? Yes.
3037. Are there any areas open now for homestead selections? There are a couple of vacant areas, that is all.
3038. Not very good land? The land is a bit too rough for the price.
3039. Are there any unalienated Crown lands in this neighbourhood available? There are none in this immediate neighbourhood.
3040. Are there any good reserves in this neighbourhood? I think the nearest is about 13 or 14 miles away.
3041. Then the A. A. Co.'s grant has simply mopped up everything? Yes; there does not seem to be anything but the Company's land about here.
3042. So there is no possibility of an increase of population by reason of the taking up of Crown lands? No.
3043. Have you any further information? I desire to hand you the following returns of the business done and the revenue received by me, both as Land Agent and as C.P.S.:—

RETURN by the Land Agent, at Stroud, to the Under Secretary for Lands, showing particulars of work performed during the year ending 31st December, 1897.

	Number.	Nature of heading.	£	s.	d.
Annual leases—					
Applications received	48	Deposits	168	0	0
Annual lease auction sales					
Deposits on tender for annual leases					
Leases on which renewal rents were collected	92		354	18	8
Auction sales—					
Sales held	2	Amount collected..	208	0	0
Conditional leases—					
Applications received	11	Deposits	20	13	6
Leases on which renewal rents were collected	11	Survey fees	55	4	6
Transfers	107		473	15	5
Transfers	12				
Conditional purchases—					
Applications received	7	Deposits	53	18	9
Improvements	7	Survey fees	30	3	9
Purchases on which interest, instalment, or balance and deed fee was collected.	2		26	9	8
Fees <i>re</i> suspension of condition of payment on conditional purchases	537		2,879	2	9
Transfers	15		2	5	0
Transfers	22	Stamp duty, &c. ...	21	19	6
Homestead selections—					
Applications received	9	Deposits	58	5	11
Applications received	9	Survey fees	27	3	4
Church and school leases	15	Rents	80	5	2
Licenses—timber, quarry, &c.	45		12	10	0
Revenue—					
Miscellaneous	32		6	0	2
Paid direct to Treasury in connection with this district.....	55		200	11	2
Total	1,038		4,679	7	3
Inquiries—average per day	5				
Letters—despatched (Land Agents' letters only)	581				

RETURN of Business transacted by the Clerk of Petty Sessions, Registrar of the District Court, &c., &c., Stroud (exclusive of Land Agency business), and of moneys received by him in all capacities for the year ending 31st December, 1897:—

Petty Sessions Court transactions—		
Number of Petty Sessions Court Cases where accused have been arrested, exclusive of arrests under Licensing Act		4
Number of Petty Sessions Court Summons Cases, exclusive of Summons Cases under the Licensing Act		15
Number of Arrests or Summons Cases under the Licensing Acts, 45 Vic. No. 14 and 46 Vic. No. 24		Nil.
Number of Cases committed for trial.....		Nil.
Number of Municipal Appeals dealt with.....		Nil.
Number of Applications for Auctioneers', Pawnbrokers', Hawkers', Coach, Fishing Boat, Fishermen's, and other Licenses		31
Licensing Court Transactions—		
Number of Applications made to Licensing Court or Licensing Magistrate.....		20
Number of Bankruptcy Cases.....		2
Small Debts Court—		
Number of Plaints entered		12
Number of Garnishee Applications		1
Number of Bills of Sale registered.....		4
Miscellaneous—		
Number of Tobacco Licenses issued		15
Number of Road Contract Tenders received and opened		584
Number of Receipts taken for Public Moneys disbursed		10
Number of Letters of all descriptions received in connection with all offices held by C.P.S., but excluding Applications for Electors' Rights		350
Number of Letters despatched		209

District

C. W. Cripps.
30 May, 1898.

District Registrar's Transactions—		
Number of Births, Deaths, and Marriages registered		272
Number of Certificates—Births, Deaths, and Marriages		16
Number of Cards filled up for Statistical purposes.....		272
Electoral business—		
Number of Original Rights issued		10
Number of Transferred Rights issued		2
Moneys received—		£ s. d.
Fees of Courts of Petty Sessions	5	2 8
Fees under special headings of "Other Fees of Courts of Petty Sessions".....	0	2 0
Registration of Dogs.....	26	8 3
Fees as Registrar of Births, Deaths, and Marriages	1	12 0
Fees as Commissioner for Affidavits, Agent for Probate, &c.	0	13 0
Fines paid to Revenue	2	18 9
Fines paid to Police Reward Fund	2	16 3
Licenses issued	14	15 0
Fees for Transfers of Publicans' and Billiard Licenses, Music Permits, &c., under Licensing Acts.....	2	0 0
Small Debts Court Fees	1	14 0
Returnable and other Costs	0	4 10
Suitors' Money, Small Debts Court	12	13 3
Total	71	0 0
Total Moneys received as Land Agent	4,478	16 1
Moneys paid direct to Treasury for Land in the district	200	11 2

TUESDAY, 31 MAY, 1898.

[The Committee met at Gloucester, at 2:30 p.m.]

Present:—

FRANCIS AUGUSTUS WRIGHT, Esq. (TEMPORARY CHAIRMAN).

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Alexander Thomson Laurie, grazier, Rawdon Vale, near Gloucester, sworn, and examined:—

A. T. Laurie.
31 May, 1898.

3044. *Mr. Black.*] How long have you been a resident in this district? About fifty-seven years.
3045. Do you know the route of the proposed railway? Yes; I know the country intimately.
3046. Do you think that, as laid out, it would serve the country? I do; I am well acquainted with this country, and I have made myself very much conversant with the North Coast Railway scheme from the first initiation of it. I was one of the deputation who waited upon Mr. Lyne, and I have always had the project before my mind's eye throughout the whole of the time since then. I think that the railway will go far towards developing this part of the country, more especially considering that we have no other facilities for the removal of our produce to market. We have no river here which would enter into competition with any railway, and we are hampered. The country is largely in a state of nature, it is not much better than it was the first day I came to it. That fact arises from the want of facilities to remove the produce to market. It is not because we are not able to produce. I have taken the trouble to procure a report as to the capabilities of our soil which I now hand in. It is as follows:—

Sir,
I have the honor to transmit herewith the report, by Mr. F. B. Guthrie, F.C.S., Analytical Chemist to the Department, on the analysis of the soil submitted by you.
Nature and depth of soil—Loam.
Reaction of soil—Strongly acid.
Capacity for water—43·66 per cent.
Absolute weight per acre, 6 inches deep—2,702,000 lb.

Mechanical Analysis.

Root fibres.....		·08 per cent.
Stones over $\frac{1}{4}$ inch diameter		·00 "
Coarse gravel, more than $\frac{1}{10}$ inch diameter	5·75	"
Fine gravel, more than $\frac{1}{20}$ inch diameter	4·58	"
Fine soil, 89·59 per cent. } Sand	50·16	"
	39·43	"

Analysis of Fine Soil.

Moisture.....		2·020 per cent.
Volatile and combustible matter, principally organic	8·103	"

Fertilising Substances soluble in hot Hydrochloric Acid of 1·1 specific gravity.

General value.

Lime (CaO), ·060 per cent., indifferent, equivalent to 1,621 lb. in an acre of soil 6 in. deep. (a)
Potash (K₂O), ·166 per cent., satisfactory, equivalent to 4,485 lb. in an acre of soil 6 in. deep. (b)
Phosphoric acid (P₂O₅), ·163 per cent., satisfactory, equivalent to 4,404 lb. in an acre of soil 6 in. deep. (c)
Nitrogen, ·245 per cent. (equal to ·297 per cent. ammonia), good, equivalent to 6,619 lb. in an acre of soil 6 in. deep. (d)
In connection with the foregoing, I have the honor to forward additional particulars, as follow:—This land should be well adapted for wheat-growing when it has been sweetened. At present it is very sour. If the sub-soil (of which I have not received a sample) is porous, the land would probably not require drainage. It will be necessary to sweeten it by thorough cultivation and a liberal application of lime. Lime is deficient in the soil, and should be applied at the rate of about 1 ton to the acre in the form of stone lime freshly slacked (see *Farmer's and Fruitgrower's Guide*, page 44, &c.) After this treatment, it should prove excellent wheat-land. Information as to manuring most suitable will be supplied if required.
I have, &c.,
D. C. McLACHLAN,
Under Secretary
(per A.F.)
That

NOTE.—(a) This amount of lime would be supplied in 1,801 lb. of quicklime, or 2,431 lb. of slaked lime, or 3,242 lb. of chalk.
(b) This amount of potash would be supplied in 8,970 lb. of commercial sulphate of potash, or 37,360 lb. of kaimit.
(c) This amount of phosphoric acid would be supplied in 17,616 lb. of commercial bone-dust, or 26,424 lb. of superphosphate.
(d) This amount of nitrogen would be supplied in 33,095 lb. of sulphate of ammonia, or 39,714 lb. of nitrate of soda.

That is from the ridge lands, not alluvial flats, and represents a fair sample of about 50 per cent. of our land. I wish it to be distinctly understood that it does not apply to our alluvial flats, but to ridge land over an extent of about 30 miles of country—portions to the east, and portions to the west; therefore it is a fair sample of the soil. That report is perfectly satisfactory to me, because it says that with that amount of line added the soil would be excellent for wheat-growing. The question asked was, was it suitable for wheat-growing? That analysis applies to one-half of the ridge land in the district. I have been, only to a limited extent, connected with agriculture for many years. My connection has been more with pastoral pursuits, but I have a limited knowledge of agriculture, and I have seen excellent wheat grown on the ridges of this district, notably at Stroud and on this side of Stroud. I do not mean on the flats or alluvial deposits. We are certain that wheat will grow there, but the wheat grown on the ridges is a better wheat.

A. T. Laurie.
31 May, 1898.

3047. Firmer grain? Yes. But I admit my knowledge of wheat-growing is only limited. The mountain land of the district is adapted to fruit-growing. Fruit can be grown very well in this district. I am the largest fruit-grower in this part of the Colony, and am a professional judge of fruits. I have judged at all the local shows, and can speak with a competent knowledge. On the ridge land I grow oranges, lemons, apricots, peaches, nectarines, persimmons, plums, and cherries. They all grow freely. They will grow better on the mountainous soil than on the lower ridges. The soil is better on the mountain sides where there has been brush. Probably you want some information with reference to the stock of the district. I am connected with stock. I am Chairman of the Pastures and Stock Board, and I have an intimate knowledge of the district in regard to stock. The means of carrying the stock to market by rail would be taken advantage of. We send stock to Maitland, and sometimes to Sydney. We have to drive them to Maitland, and thence truck them to Sydney; but if we had the means of taking them by rail from Gloucester we would take advantage of it. The difficulty of the cost would be got over, for we would get the animal to market in a better condition, because it could be delivered in a day. We have throughout the district, I think, according to returns, generally 50,000 odd head of cattle. There are no sheep; it is not a sheep district. We know very well that there are really more than that number of cattle in the district, because there is a tax applied to cattle, and they are never over-estimated. We generally have a suspicion that there are many more than are reported.

3048. What are the principal products of the district? Maize is grown in the district. I think that is the principal product. There is some wheat grown, but not a great deal.

3049. What is really the backbone of the district;—on what does it depend? I think the backbone of the district is stock, because they pay for removal. The crops of maize are generally converted into pigs, and then driven to market. It is about 66 miles from here to Raymond Terrace, and, of course, the carriage is very dear.

3050. It is, you say, a long distance to drive pigs to Raymond Terrace, and the cost of driving is an expensive item? Yes. They would certainly be sent by train from here if there were a train to put them in here, because they have to be trained when they get down there.

3051. Have you any idea as to what is the annual output of pigs in the district? No.

3052. What do they charge for taking pigs by steamer to Sydney? I cannot say, for I have never had anything to do with sending pigs to market.

3053. What do you think pigs could bear in the shape of railway carriage from here to Sydney? They could bear more than is charged for driving and conveyance by steamer, because they would be carried more quickly by rail.

3054. How much more? I should think that a pig would deteriorate in driving and carrying by steamer certainly more than 1s. 6d. I think that the pig-owners could afford to pay 3s. for railway carriage better than 1s. 6d. for driving and steamer freight, because it costs so much to take a pig to Raymond Terrace, and then there is the freight on the steamer or train afterwards. I think that I can safely say they could afford to pay twice as much if they could send it from Gloucester at once by train.

3055. Are there any large areas of land suitable for agricultural purposes which are not visible from the road as you drive along? Certainly there are. You have only seen a sample of the land, and not a very good sample, as you drove towards Gloucester. You will see better land on your way to Taree.

3056. I meant the road to Taree as well as from Gloucester? I think you will see a fair sample of the hilly country on the way to Taree to-morrow.

3057. Then I am to understand that land which is not immediately intersected by the road is, as a rule, more fit for agricultural purposes than the other? I am not prepared to say that. I show that land is adapted for wheat-growing, and I apply that to one-half of the land.

3058. Still it is not first-class land? I only say it is fit for agriculture or wheat.

3059. How many years of cropping would that land which you have had analysed stand? That depends on the way it is treated. If treated properly it could be cultivated for a great length of time.

3060. What do you mean by "treated properly"? Manuring it and putting back in the land what you take out of it, as near as possible.

3061. The farmers in this country do not do that? I know they do not.

3062. Well, if they do not do it, and it is done by farmers in other districts, they cannot compete with them? No.

3063. Then, although the analyst has deposed that this is the good wheat land, it would not bear many years' cropping until you returned to the soil some of the constituent parts the cultivation took out of it? I think that applies to every kind of land.

3064. I have seen land under cultivation eighteen years in this Colony? It must have been exceptional. It must have been an alluvial deposit.

3065. Do you think this land would stand a wheat crop for three years? I am confident it would.

3066. Four years? I am confident it would.

3067. Five years? Yes, it would; and could be used for grazing afterwards.

3068. Five years, and then require to be rested for two or three years? Yes; it would require a rest. The culture of land improves the grazing very largely, and after being rested it can be brought under cultivation again.

3069. Land that has borne a wheat crop soon becomes qualified to support stock, does it not? Yes; it is improved.

3070. I mean there is no great interval—as soon as you remove your crop, the grass and the herbage begin to spring up? Yes. You can graze it the same season after cropping it.

3071.

- A. T. Laurie. 3071. You say that the raising of stock is the staple industry of the district? It is.
- 31 May, 1898. 3072. Is the stock locally bred, or is it brought hither for fattening purposes? Immediately around here they are bred in this district, but where fattening is carried on, they are brought from a distance to the favoured spots in the district, and are fattened there; they are both bred in the district, and brought from a distance.
3073. How is the land held, generally, in the district—as freehold? A great deal of it is freehold. The better part of the land has been alienated. For instance, here is the A.A. Co.'s estate, 464,000 acres—that of course is a strip reaching through the district—and on the west a good deal of the land is alienated.
3074. What sort of land is the company's land here? So far as the flats are concerned, it is perhaps quite as good as the Church and School lands estate, which is immediately west of this town. The alluvial deposits are much the same, and the ridges are very much the same.
3075. There is, of course, a good deal of indifferent land about here? Yes, there is.
3076. Stony? Yes; some of it—mountain brush—but that could be made available with labour.
3077. Some poor hungry soil? There is some of that too. It is a mixture.
3078. How do you account for the comparative backwardness of this district? I put it down to the want of communication. I cannot put it down to anything else. I have already told you that it would not pay to carry the corn to Raymond Terrace, and that is the nearest port we have. Unless other facilities be granted, the country must remain as it is.
3079. Do you think that there is anything in the statement that the people here are idle, and that the methods of their farming are obsolete? No; I do not believe that at all. I believe that any people in any part of the Colony would rise to the occasion when they saw reason to do so. I do not think that the people here are more idle than elsewhere. Whoever made that statement was not speaking according to the facts. I believe the people here are as industrious and well-disposed as any persons could be; but that with want of communication they have not an incentive.
3080. Then you think that if the district were opened up by a railway there would be a great accession of prosperity? I think so. That is the reason why I am here to-day.
3081. In what direction would the development take place? It would take the form of growing crops instead of grazing stock.
3082. That would mean that a great deal of land would be cleared, would it not? A great deal of land would be put under crop. I may say, to guide you in your questioning, that I am the holder of certain land, and if facilities were granted I most certainly would put it under crop. Most of my land is wheat-growing land. I merely speak for myself. The Railway Commissioners, when they came along here, asked me what the company would do in the event of a railway running through their land. Of course, I could not answer the question; but I could merely say that they might do as I would do.
3083. Have you any connection with the A. A. Company? Not the slightest.
3084. Have you ever heard of any people in the districts letting their land on the halves system? No; there has been no such thing, so far as I am aware, in the district. With railway communication I, individually, certainly would immediately set about putting my land under wheat on the halves principle.
3085. How many acres have you? I am the owner of 4,000 or 5,000 acres, and I think I can safely say that I would put half of it under wheat.
3086. Is the half of it the whole quantity that is suitable for wheat cultivation? Yes; and the other portion, being stony and perhaps a little too steep, would be very good for grazing; and I would still keep it for grazing. I dedicate my land to fattening purposes. I fatten stock. My returns from stock-fattening, as near as possible, amount to 4s. per acre per annum.
3087. How many acres to the beast? I consider 5 acres sufficient to fatten a beast upon. The difference between a fat beast and a poor one is £1; therefore, I get 4s. for each acre. If I put my land under wheat on the halves system I think I would get 12 bushels, of which 6 bushels would be mine; and that, at 3s., would give me 18s.; but if I were to get only half, viz., 9s., I would be better off than I would be from grazing the land.
3088. When do you get your rain here? There is no particular season in this part of the country for it.
3089. Do you get rain at a suitable time for ploughing? Yes, generally speaking. I have never seen a drought extend over three months.
3090. I thought you had a bad drought in 1895—a winter drought? 1895 was certainly a bad year, but in that year I do not think that the drought extended over three months.
3091. Do you get a good spring rain to force the wheat through? We had not much grass just before the rain that has fallen since Christmas, and yet two months ago I pulled grass on the Church and School lands estate 6 ft. 4 in. long; it had grown so quickly.
3092. Do you generally get heavy rains about Christmas? I cannot say when they come; there is no regularity at all.
3093. But may you not get rain at a time when it may interfere with your herds, and destroy your crops? Yes. I have no knowledge of any regular rainfall here. It falls without any regularity at all.
3094. I am asking you these questions because the statistics we have with regard to the rainfall seem to my mind to imply such an excess in that direction as to render the climate rather unsuitable for wheat-growing? Of course, down on the East Coast, at Taree for instance, 60 inches of rain falls in the year, but I question if we have the same rainfall here. We are peculiarly situated.
3095. They have 58 inches at Stroud? But they are nearer to the sea there. I know the rainfall is much less here.
3096. You are not trouble with rust in the wheat here? I have known rust to be in the wheat, but not recently.
3097. How about the timber of the district;—is the cedar nearly cut out? Yes; there is not much now; most of it has been taken away.
3098. In any case, I suppose, that would hardly bear the expense of railway carriage, would it? I question if it would. It is not worth while mentioning it. People have been cutting it and taking it away for many years.
3099. If the proposed railway were constructed, do you think they would truck the cattle from here to Sydney? Most assuredly they would.
3100. You travel them along the road now to Maitland, I suppose? Yes; and thence truck them to Sydney.
3101. What does it cost to travel a bullock from here to Maitland;—I want the estimate in two portions, first, the bare cost of travelling, and secondly, the deterioration in travelling? We know intimately what it

It is likely to cost, because, in the event of my taking a mob of cattle to Maitland, and sending my man with it, if you put in a few which would not justify you in taking them yourself, I would charge you 5s. per head for driving from here to Maitland. We have done it; that is our rule.

A. T. Laurie.
31 May, 1898.

3102. There is a good stock route, is there not? Yes; but not enough of reserves—that is the trouble. I have been in communication with the Department for some years, but cannot get them to see there is any more land to reserve. We would most certainly truck our fat cattle.

3103. To what extent does a bullock deteriorate in selling quality between here and Maitland? I can fall back on the report of the Mines Department for that, and that report says that an animal travelling 300 miles falls away 100 lb. in weight, and that is the best of the meat—the most juicy part.

3104. How far is it from here to Maitland? About 80 miles. It is possible that a bullock going from here to Maitland may fall away 25 lb. or 27 lb.

3105. What would that take off its market value? It would take off so much of the best, the most juicy parts of the meat, and, moreover, it would injure the selling price also, because the beast would look so much the worse.

3106. How much? You can safely put it down at 10s.

3107. Then you may say that the cost of travelling a bullock to Maitland is about 15s.? Yes. I would rather truck bullocks and pay 15s. each for carriage to Maitland than I would drive it, because first of all I would not have to send a man with the bullocks, and secondly they would be delivered in better order.

3108. You say that you could afford to pay 15s. a head for the trucking of bullocks from here to Maitland, and could make money by doing so? I would sooner do it than drive them.

3109. It is a big sum? Yes; but I would first of all save in not having to send my man, and then, in order to put the animal on the market, I could truck it to-day, and it would be on the market to-morrow.

3110. What are bullocks worth now? At the last sales they were worth £6. We generally get about £5.

3111. When they are at that price you can bear the cost of sending them to market? Yes.

3112. But the lower the price the less able they are to bear a high rate of carriage? Of course. The lives of a great number of stock have been saved by their being brought from the plains country to places below Stroud.

3113. To which place have those cattle been trucked on the railway line? As far as Muswellbrook, and thence travelled overland to the coast country. Large numbers of cattle have been taken to there—not lately, but years ago, and now and again.

3114. Store cattle? Yes; they have been brought to there to save their lives and the people have done well by doing it, I suppose, for they have continued to do it.

3115. Then you have every faith in the ultimate prosperity of this district if the Government do something to accelerate its development? Yes.

3116. Are you aware of the estimated cost of the proposed line? Yes; I have seen a report of it.

3117. You know that for 113 miles 66 chains the estimated cost is £982,283? Yes.

3118. Or nearly £9,000 per mile? Yes; I have read the whole report.

3119. Do you know that that would entail an annual loss of about £31,000? Yes.

3120. Do you think that under such circumstances the expenditure would be justifiable? Well, it seems to me, so far as the railway is concerned, there has been a large amount of expenditure in other parts of the Colony which was barely justifiable, and we are very much handicapped, because, as the Railway Commissioners tell us, there is a deficiency in the railway revenue on certain lines amounting to something over £300,000 per annum.

3121. You think then that because we have non-paying lines in other parts of the Colony, you are justified in asking to have one here? I do not say that; but I feel that we are handicapped here—that is to say, we have to bear some of the burden, without participating in the advantages of railway communication.

3122. But do you not see that you would only intensify the burden which other people would have to bear in districts where the lines are paying? I can only fall back on my argument, that a railway running through this country would develop it. My contention in favour of the proposed railway is solely based on the probability of its developing this part of the country, and that development would justify the expenditure. If you were to settle so many people within a radius (say) of 10 miles of Gloucester, those people would be worth so much to the country.

3123. But where would you put them? I would put them on the land.

3124. What population could you settle in this district;—how many acres would support a family? It all depends on the land.

3125. I mean approximately? I think you could safely say that you could have several hundred farms on the alluvial flats within 10 miles of Gloucester, and each of those farms of 40 or 50 acres would support a family. I think the land is good enough for a man to manage a farm of 40 or 50 acres, and that would support him and his family.

3126. Then we may presume there are from 5,000 to 7,000 acres of land available for farming purposes within 10 miles? Yes; I stated before that that report and analysis apply to about half of the land of the district; but, of course, a large proportion of that half is rich alluvial flats which would carry more population in proportion to the area.

3127. Is it possible to increase the carrying capacity of the grazing land in the district? Certainly, if it were cultivated. I have shown that it will grow wheat.

3128. I meant its capacity for carrying stock? Yes. With regard to most of the country with which I am intimately acquainted or connected, I may say that it has been ringbarked, and that has increased the grazing capabilities enormously.

3129. What difference does ringbarking make in this locality? I cannot tell you; it is beyond calculation.

3130. Does it double the capacity? Yes; it quadruples it, at least. There is no comparison at all.

3131. A great deal of land has been rung? Yes; but in any case where there are small holdings it has been ringbarked. I know that the A.A. Company have been very slack in ringbarking.

3132. *Temporary Chairman.*] What is your opinion as to the average capital value of the land in this district per acre, classifying it under two heads, first for agriculture, and secondly for grazing? The best thing is to fall back upon the assessment that has been put upon it by the Government valuers. A great deal of it has been put down at from £1 to 25s. This land belonging to the A.A. Company is, I believe, put very low, because there is a lot of land towards Stroud, and even towards the Myall River, which is not very good, and they have averaged it, and I believe put it very low.

- A. T. Laurie. 3133. Have you ever heard what they purchased their land at? I cannot say authoritatively. I know that the value put on the A.A. Company's land by the Government assessors, at least most of it, was from 31 May, 1898. £1, and as far as I am concerned 26s.
3134. What do you call the land along the road we came? I would not put its value very high.
3135. Would you put it at 5s. an acre? I would not buy it for that.
3136. It is not typical of the bulk of the country? No, not at all. We consider that that land is inferior. It is mostly conglomerate or pebble-stone.
3137. Would you think that the number of stock carried on land is a fair indication of its character? Yes, if the ground is good.
3138. According to the stock returns, the A.A. Company on 116,000 acres run 8,000 head of cattle, which is about one beast to 14 acres;—I suppose you would consider that that is inferior grazing land? I would consider it very lightly stocked; but, as an illustration bearing out what I contend, I may say that a friend of mine told me that, since Christmas, he passed through the company's land along here and could not see a single head of cattle, because they were lying down in the long grass, which was over their back.
3139. Mr. Tunks, of the Land Valuation Department, values the A.A. Company's land at an average of £1 an acre all through? That is a very liberal valuation.
3140. Supposing that the Government were to determine to construct a railway through this district, all the land, according to the official return, having been alienated, where is the additional settlement to take place—where are the additional people to acquire land? I think the company would be guided by common sense, and would do what would be beneficial to themselves. I should lease my land, and I think the company would do the same.
3141. Supposing that the company were determined to act the same conservative part they have hitherto acted, and shut up their land, how would the population and settlement increase sufficiently to make the railway pay? I must admit that the railway line is surveyed to pass right through the company's land, and that the company would have a very large amount of advantage, because the line would pass through the best of their land. You see the best of their land when you are at or near Gloucester.
3142. Do you think it is right to ask the taxpayers to construct a railway 40 or 50 miles through the A.A. Company's land, and almost exclusively for that company's benefit, because they would reap the principal benefit, owing to the enhanced value of their land? But I suppose that applies to almost every railway in the country.
3143. Not to the same extent; the land is more subdivided between various holders; but here is one great proprietary holding 52 miles of country through which the railway would pass? There is no doubt of that.
3144. At what price do the company sell land now, or do they ever sell any? I have never bought any from them, but I have heard that they were selling land at from £1 to £2 per acre, according to the situation.
3145. Have you any knowledge of agricultural land having been sold in this district of late years? No.
3146. So we can get nothing to guide us as to the value of the land now? No.
3147. You know that this railway is estimated to cost £982,000, and that the assessed value of the land to be resumed, outside the company's land, amounts to an additional £18,000, making the total cost £1,000,000; that the Traffic Manager went through this country, and examined the books of the steam-boat companies, and got all the information he could, and he says that the construction of this line would involve an annual loss of £31,000 per annum; he has added nearly 50 per cent. to the freight of goods now sent from the district, and he sees no possibility of that great loss being reduced for a long time to come? I know that is the officer's report.
3148. Your contention is that a railway through this district would open up the country, increase settlement, and also induce those who already occupy land here to utilise it to greater advantage than they do now, and in this way traffic would be created? Yes; that is the whole of my argument in a nutshell.

Rue Bergin, licensed surveyor, Dungog, sworn, and examined:—

- R. Bergin. 3149. *Temporary Chairman.*] You are in charge of this district? Yes.
- 31 May, 1898. 3150. *Mr. Fegan.*] How long have you been in this district? About ten years.
3151. As a licensed surveyor, how long have you represented the Government here? Ten years.
3152. How far does your district extend? It embraces four counties—Hawes, Macquarie, Durham, and Gloucester.
3153. Do you know the route of the proposed railway, as shown by this map? Yes, I do.
3154. Having had ten years' residence here, and been practising your profession, you have a thorough knowledge of the land through which the proposed railway would pass? I have.
3155. Would you mind describing that land, starting from Stroud? Leaving Stroud and proceeding northerly, the line goes through the A.A. Company's estate, which is fair grazing country, and with patches of good cultivation. About the Monkerai, it taps a belt of country which extends north-westerly, and through the Church and School lands into Crown lands. That particular belt of country is a timber reserve—the greater portion of the Crown lands. In this timber reserve is some of the finest land we have in the district.
3156. That reserve is forest reserve No. 16,050, notified 8th August, 1892? Yes.
3157. How many miles is that from the proposed line? About 20 miles from the nearest point of the line.
3158. You have a good knowledge of timber? Yes.
3159. What timber have you there? Tallowwood, ironbark, various kinds of gum, mahogany—nearly all our marketable hardwoods.
3160. Has that reserve been opened yet as a timber reserve? It is just commencing to be tapped now. A few girders for New Zealand are being taken away from it now. They are about the first timber taken out of it. That has occurred during the last six months. The Government are now allowing men with licenses to cut timber there. The whole of the belt north of the last place I described all consists of first-class lands, so far as grazing is concerned. To a great extent they are fit for agriculture—for wheat or straw crops. They are not fit for corn, but they would grow excellent wheat or straw crops. Then, proceeding further north again, and keeping still to the west of the Church and School estate, we come into

- into a large belt of brush country—unalienated; that is, west of the proposed line. There is excellent soil there, and there are large quantities of cedar in that belt of country. R. Bergin.
3161. Can you assign any reason why that large tract of country, marked "Crown lands," has not been occupied, seeing, as you say, that there is good cedar there and good soil? Yes, because the land being brush land is unsuitable for grazing, and that is the only thing that pays about here. We are too far from market to grow crops. That is the reason I assign. As you go farther north still, keeping to the west of the Church and School lands, the land may be classed altogether as grazing land. It is very fair grazing land. Immediately north of the Church and School land the unalienated Crown land is grazing land, all nearly first-class land, according to the way we classify land here. 31 May, 1898.
3162. What is the reason why it has not been taken up? It is rather far away, and a lot of it is held under lease.
3163. How far is it from water carriage? The nearest water carriage to that would be at Taree.
3164. Which would be how far away? Over 100 miles the way they would have to carry.
3165. Do you think that that description fairly covers the land on the west side of the route and within the red lines marked on the plan? That will cover it.
3166. Is that scrubby land? No; it is mostly box country. Starting again from Stroud, in a northerly direction, within the A.A. Company's boundaries, you pass through very fair to inferior grazing land, with some cultivation along the creeks and rivers. There is a good deal along the Karuah River, and also along the various creeks, such as Johnson's Creek and Ward's River. I think that what I have said about describes the whole of the country until we reach Gloucester.
3167. Outside of the A.A. Company's boundary, and within the red lines marked upon the map, will you describe those portions to the east of the A.A. Company's land? That country is rather a mixed lot; it is very good grazing land in patches, and very good cultivation in patches. A lot of it is fit only for timber reserves, which at the present time are useless, and pretty well exploited too.
3168. There is a reserve of 37,700 acres, notified 21st September, 1890, reserve No. 12,521? That is all timber country. It is not suitable for anything but timber. It is worthless from either a grazing or agricultural point of view. As regards the country to the north of that reserve and east of the railway line, all the available good land has been alienated. The parts left, coloured brown, and still Crown lands, are practically valueless.
3169. Then there is a large reserve of 43,700 acres, reserve No. 11,638? It is a forest reserve, notified 3rd April, 1886. That country is suitable only for timber.
3170. May we then say, in general terms, that the unalienated portion of the land east of the A.A. Company's property is practically very inferior land, and is only fit for timber? In general terms, you may say that of the land east of the A.A. Company's estate.
3171. Due north of the railway line there is a large tract of Crown lands within the red lines marked on the map? You can safely say that the whole of the good land in that part has been already alienated.
3172. Therefore, there is no possibility in the near future of settling a large population there? No; there is nothing to accommodate them on that particular belt of country.
3173. In your opinion, that is a fair description of the country from Stroud to Taree and north of Taree within the sphere of the proposed railway? Yes.
3174. Have you ever acted as assessor of land? Yes; I assessed the county of Durham.
3175. A portion that would come within the influence of this line? Yes.
3176. Which portion? The part south of the Williams River, west of the proposed route, to the boundary line marked on the map, to the west.
3177. None of that which you have described is the A. A. Company's property, is it? No.
3178. What is the average assessment? The average assessment price of grass lands unimproved was about 25s. per acre, whilst the cultivation ranged from £5 up to £50 per acre.
3179. Have you ever been called upon to assess lands that would be within the influence of the proposed railway over the extent of country you have mentioned? No, I have not, beyond assessing them for leasehold purposes for the Crown.
3180. What has your assessment been there? From £1 per acre up to £3 per acre for grass lands.
3181. Any under £1? No.
3182. Can you give the Committee an approximate idea of how many leaseholds there are at present? No, I cannot.
3183. *Temporary Chairman.*] There is a public-house between here and Stroud—17 miles from Stroud? Yes.
3184. What would you call the land we travelled over from that house to Gloucester? Just about that particular house there is some very fine cultivation land.
3185. I mean after you get on the hill this side of it? It is ironbark land, fit for timber. It is very suitable for timber for a few miles, until you get on the northern flats, and the whole of those flats is suitable for wheat-growing.
3186. The whole of the land in that part of the district is very poor land, is it not? Only until you get to the Avon.
3187. What do you get at the Avon? You get fair soil, loam, fit for wheat-growing.
3188. It is a class of country that would grow wheat successfully for two or three years, is it not? I think it would grow it longer, from what I know of that country.
3189. Have you any experience of wheat-growing? Yes.
3190. Do you consider that that soil would grow better wheat than table-land, where you have basaltic soil? No, I do not think so.
3191. It would not grow as much? No; but it is capable of growing 10 or 12 bushels to the acre.
3192. I noticed that that land was particularly adapted for growing light crops of the best description of wheat; but it would not grow heavy crops of wheat, nor grow it very long? Perhaps not.
3193. Can you give us any idea what land about here has been sold for;—for instance, have you measured any portion for the A.A. Company of late? Only for small assessments. In this village they are asking £18 for a $\frac{1}{2}$ -acre allotment; but that is hardly a fair criterion.
3194. Do you ever measure land for the company? No; but I have some knowledge of what they sell their land for about Ward's River, and towards Stroud. I think that about the lowest price at which they sell grass land is about £2 per acre.

- R. Bergin. 3195. Of what quality is the land on Ward's River? It is medium grass land, not first-class grazing land, but about fair. It is country that suffers considerably in a dry season.
- 31 May, 1898. 3196. And their agricultural land? From £5 to £15 per acre—that is the information I have gathered from what the settlers have told me they have paid for the land when I have had any dealings with them.
3197. *Mr. O'Connor.*] Do you know all the land belonging to the A.A. Company? I do.
3198. Can you form an estimate as to what it will be worth right through, taking one portion with another? I should say that taking it altogether as it stands at present, it would be worth from 12s. 6d. to 15s. an acre. I include in that estimate the value of the timber upon the land.

John Notley, creamery proprietor, Barrington River, sworn, and examined:—

- J. Notley. 3199. *Mr. Hassall.*] How long have you carried on business as a creamery proprietor? I opened the creamery only last February.
- 31 May, 1898. 3200. Then the establishment of your creamery, and the resulting dairy industry, are of recent date? Exactly.
3201. What were the people settled on the soil principally doing before that? Farming.
3202. Growing maize? Growing maize and wheat, and having a little pastoral land.
3203. Much wheat? There was a fair amount grown on the Barrington.
3204. Was it touched with rust at all? I am sure it was not injured by rust to any extent. They are going more extensively into wheat-growing this year.
3205. You started the creamery last February? Yes. Thirty different settlers then agreed to deliver milk to the creamery. When I first commenced operations, I am sorry to say, the district had been visited by a very severe drought—a rather unusual circumstance in this part of the country—it being well watered, and having a very good rainfall. In consequence of that drought a considerable number of the milking cows died, and it will be next spring, probably, before any considerable increase takes place in the number of cows milked and the quantity of milk delivered at the creamery.
3206. At present, how much milk is delivered there daily? None. I shut up the creamery about six weeks ago, there not being a sufficient supply to keep me going.
3207. That was the result of the drought which you previously mentioned? Exactly so. It appeared to me, in commencing operations as a creamery proprietor, that the residents of the district thought that better returns were to be obtained from that industry than from anything they had been previously engaged in; and in all probability the industry will increase year by year; in fact, I have not the remotest doubt about it.
3208. Do you consider this country is suitable for dairying purposes? I do not think there is a better district in New South Wales for dairying purposes. When I erected my establishment I fully reckoned on 1,000 gallons a day the first season, but the season set in badly and we could not get a fair start. However, I fully expect to treat 1,000 gallons a day next summer.
3209. In this particular district you have very large areas of good grazing ground, and a considerable area of cultivation land? Yes.
3210. All that is necessary, in fact, to carry on dairying operations successfully, providing that the season was anything at all favourable? Not all that is necessary, because you must understand that we are labouring under a disadvantage here compared with other people in the Colony as regards the matter of carriage.
3211. I did not mean as regards carriage; but that you have the land, the climate, and all the natural conditions necessary to enable the dairy business to be carried on successfully and profitably? Yes.
3212. Now, what about the drawback? The drawback is the cost of carriage. As a matter of fact, I have of necessity to take $\frac{1}{4}$ d. a gallon for carriage off the price of the milk that my suppliers bring to me, and my people get $\frac{1}{4}$ d. a gallon less than they would if they were living near a railway or the market. We are isolated here through the want of a railway.
3213. Why do you charge them that $\frac{1}{4}$ d. per gallon? It costs me exactly that for the carriage.
3214. Where to? To Taree I have been taking it lately. I have sent it to Dungog and Taree. The difference amounts to the same thing in regard to both places.
3215. The suppliers of milk are practically at a loss of $\frac{1}{4}$ d. a gallon on every gallon they deliver to you in consequence of your having to convey the cream a considerable distance by road, to the nearest port of shipment? Yes.
3216. Where is your cream sent to? It is manufactured into butter either at Dungog or Taree; there are butter factories in both those places.
3217. You do not think that if railway communication were more easily accessible that $\frac{1}{4}$ d. per gallon would be saved to the producer without any loss to yourself? I will not exactly go quite so far as that. Although the railway freights would amount to something, they certainly would not amount to anything like $\frac{1}{4}$ d. a gallon on milk.
3218. How many gallons of milk make 1 gallon of cream? One hundred pounds of milk are supposed to produce 10 lb. of cream.
3219. Do you think that there is any prospect of this industry being carried on successfully without a railway? Of course, when I entered into this business I had faith that I could go through with it independently of a railway, but if there were a railway here the industry would be carried on much more extensively. We have a large district, but I am confined to the river for about 5 miles for my supply. There is the Gloucester River, which is rather too far from me, and I am sure there will be creameries started there by-and-bye; in fact, the district is quite capable of supporting a factory here. But you could not possibly take butter from here to the seaboard by road.
3220. The best method you have of conveying the product to market is to send it away as cream, as you do now? Yes; I could not possibly make it into butter.
3221. You could not make it into butter and convey it for so long a distance profitably? I could not do it in any way without going in for expensive machinery. We would have to have refrigerators, and the butter would not stand the carriage, whereas the cream does. I have been an inhabitant of this district about twenty years. I am pretty well acquainted with most of the land within a radius of 20 miles of Gloucester, and I do not think that you could find a much better district in any part of the Colony.
3222. Have you any knowledge of the South Coast district? No, I have not; but I have talked to South Coast people who have come to our district, and they reckon that this is a far superior district to that.

Of

Of course you see mountains here and there, but immediately you get on the other side of those mountains agricultural and pastoral lands open out for a radius of 20 miles. For instance, there is Tiggerah, which is a large agricultural district. Their produce principally goes into Taree or Wingham on the Manning. That is just as good as any part about here; and when you go 15 miles west, to Rawdon Vale, you get into pastoral country second to none in the Colony. The cattle turned off that run brings the highest price in the Maitland market, topping it nearly every time it goes there, and that speaks well for the fattening capabilities of that country. Then if there were a railway here I think it would be only reasonable to suppose that the A. A. Co. would see that it would be to their advantage to throw open all their estate.

J. Notley.
31 May, 1898.

3223. It is practically locked up at the present time? Yes. If the company would open it up, I think we would have no trouble in getting a railway.

3224. It is almost impossible to get land from them? They have sold a lot of land, but they will not sell any land around Gloucester.

3225. So, practically, this town is hemmed in by the A. A. Co.'s estate, and, unless they do something to open up their land and make it available for settlement, the town cannot progress? Exactly so. As a matter of fact the A. A. Co. are a stumbling-block to this district, and I am inclined to think that if there were a railway through here the company would see that they could make more money out of their land by letting it in small holdings. The land following down the Avon Creek and the various water-courses in the vicinity is eminently suitable for agricultural purposes. I suppose there could be settled within 10 miles of Gloucester, on the A. A. Co.'s land alone, 600 or 700 families. Then there is the Barrington River. That goes right through the A. A. Co.'s estate. There is as good farming land there as on the Barrington. It is simply locked up. There are splendid brush lands all down the Gloucester to its junctions with the Barrington, 3 or 4 miles from here, and the Barrington goes from there to the Manning.

3226. All the alluvial flats along the banks of those rivers are splendid agricultural land, and the great pity is that they are locked up by the A. A. Co. and are not made available for closer settlement? It is a great pity.

3227. You regard the land being locked up as it is, as the greatest drawback to the advancement of the district and the increase of population? That is exactly how we regard it. It has been a by-word with us for years that the A. A. Co. has been the curse of this district, and no doubt it has, because they hold an enormous area, and there are as good agricultural lands within that area as any outside of it.

3228. *Temporary Chairman.*] Is there any other creamery besides yours in the district? No—that is, not up the Gloucester way.

3229. I mean immediately around here? No.

3230. What number of cows do you think the thirty people who have undertaken to supply you with milk will milk when in full swing? From 700 to 1,000 cows.

3231. What price do you pay them for the butter-fat? It varies according to the selling price of butter. I do not pay on butter-fat, but simply buy milk. I have paid from 2d. to 3½d., and if my operations were now going on I would pay 4½d., according to the present price of butter.

3232. You are satisfied, from your knowledge of the district and its grazing capabilities, that there is a large future before it for dairying purposes? I am.

3233. But the one drawback is the difficulty of getting your produce to market? Yes.

3234. Is there not a considerable mining population on the Barrington and around here? At Copeland and at Rawdon Vale, Burnell, and Pignabarney there is mining going on. I do not say it is very extensive.

3235. Where do those men get their supplies of butter from? The different settlers in the district make butter. All around those places, or most of them, within a mile or two, there are settlers, and they make butter and supply it to the miners.

3236. Do you know the country between here and the public-house, 15 or 16 miles along the road towards Stroud? Yes.

3237. What would you call the land along that road? I would not call the land of much account between the A. A. Company's station and within 2 miles of the Avon Creek bridge. It consists of box ridges.

3238. Do you think that those box and stringybark ridges are good pastoral country? Not as they are, but I think they would be if they were improved.

3239. You think that if they were rung they would be better? Yes.

3240. But, under any circumstances, would you call it good pastoral country? No; I would not call that particular patch good pastoral country.

3241. Along the road we have come, the last 15 or 16 miles, you consider it inferior pastoral country? There is a little good land up and down the Avon Creek, but the land you travelled over to-day in coming to Gloucester is not anything like as good as the land we have about here.

Angus Beaton, farmer, Barrington, sworn, and examined:—

3242. *Temporary Chairman.*] How long have you resided in the district? Ever since 1864.

3243. Are you a freeholder? No, a leaseholder of Church and School lands.

3244. Have you much agricultural land? About 25 acres.

3245. How much pastoral land? About 105 acres.

3246. What rent do you pay for your land? About £24 a year on about 130 acres, or a little less than 5s. an acre.

3247. Do you find that it pays you to give a rental like that for it? No, I do not.

3248. The rental is too high? Yes, it is, according to the facilities in the district to get my produce away.

3249. What class of land have you? Very fair land.

3250. Fair agricultural and fair pastoral land? Yes.

3251. Is your land of fair quality, compared with other land in the district? Yes.

3252. On those 130 acres you can make a living, I suppose? I can make a living, but I cannot say that I can do much more.

3253. You think that if better facilities were given to you, you could increase your yearly earnings? Certainly I could.

3254. What do you grow on your agricultural land? I grow wheat, but not to any extent—merely what supplies my own wants.

. Beaton.
31 May, 1898

3255.

- A. Beaton. 3255. Is the wheat free from rust? The last few years it has been.
 3256. The wheat is clean—there is neither smut nor rust? No, there is not.
 31 May, 1898. 3257. What do you do with the maize? I generally feed pigs with it.
 3258. You grow wheat for your own use, and maize to fatten pigs? Yes.
 3259. I suppose you use the maize in that way as being the best way you can utilise it? Yes.
 3260. You can get the pigs to the seaboard on their own feet? Yes.
 3261. Would maize pay to grow in this district if there were a railway? At the prices for which maize has been selling the last few years, if a man depended solely on maize I do not think that he would get a living out of it.
 3262. Would maize, at 2s. 6d. in Sydney and 2s. here, pay you to grow it? I do not think that a man could get a living out of maize at those prices.
 3263. Could you grow wheat and make it pay? I could at present prices.
 3264. But (say) it was 2s. 6d. or 3s. in Sydney? No; I do not think there is any profit to be got out of wheat at either of those prices.
 3265. Is the land around here well suited for the growth of wheat? Yes.
 3266. What part of it? The Church and School land on the Barrington is well adapted for wheat-growing.
 3267. Is it flats or hill-sides? Apple-tree flats.
 3268. What class of soil? Black loam.
 3269. What are the hills like—any fit for the plough? Not as a general rule. There may be odd hills fit for straw crops, but not fit for maize.
 3270. More or less stony? It is rather inclined to be stony.
 3271. Do you use a plough or a hoe in sowing your maize? A plough.
 3272. Do you say that the hill-sides would not permit of ploughing very successfully? Not successfully.
 3273. We have it in evidence from Mr. Laurie that there are some bill tops, some distance back from here, consisting of very fine land, suitable for growing wheat;—do you know that country? There may be some acres here and there; but as a general rule I do not think that that would apply. The land might come in for orchards or other produce. I do not think there is a great area of it.
 3274. As a practical farmer, knowing both the cultivation and the grazing lands, what do you think this district should be classed at? A good agricultural country.
 3275. For mixed farming, I suppose? Yes.
 3276. Is there much good land in the possession of the A. A. Company? Yes; most of it is in the possession of the A. A. Company. The Church and School land has a good deal on that side; but the principal part of the agricultural land is certainly on the A. A. Company's estate.
 3277. Is there much good land on the Church and School estate? I think there are about 750 acres. There are about thirty farmers on the Church and School lands, the settlement extending about 5 miles back from the Barrington.
 3278. Yourself being one of them? Yes. I think they average about 25 acres each, more or less.
 3279. Is that not too small an area for a man to get a living on in this country? It is too small; but they do a little in stock.
 3280. Have you been over many parts of New South Wales? I have.
 3281. Have you seen any districts you liked better than this? I have. I have been up from Merimbula to the Snowy River.
 3282. Have you been through Bega? Yes, and up the Snowy River, and from there to Parkes and Bathurst, and Mudgee, and all down there; and I have been up north to the Richmond River, and through Armidale.
 3283. You have seen some country which you thought was much better than this? I did.
 3284. The estimated cost of this railway, from Maitland to Taree, is £1,000,000; the estimated traffic on it is £18,000 a year; and the working expenses, including interest, amount to £49,000 a year, leaving an annual loss of £31,000; and the Traffic Manager, who prepared the estimate after visiting the district, and examining the books of the steamships companies, says that he cannot see anything to justify him in thinking that the loss would be lessened for a number of years;—do you think that the taxpayers of the country would be justified in spending £1,000,000 in making the railway, and afterwards losing £31,000 upon it as well? Not at the present time, unless they look for future advantages.
 3285. I suppose that a future advantage is that the railway might open up the country, and induce larger settlement, and thereby gradually reduce the annual loss? Yes.

Norman Bell, farmer, Barrington, sworn, and examined:—

- N. Bell. 3286. *Mr. O'Connor.*] How long have you lived in the district? I was born on the Williams River, fifty-four years ago.
 31 May, 1898. 3287. What is the extent of your cultivation? About 25 acres.
 3288. How long have you been there? I have been on the Barrington twenty-four years.
 3289. Are there many other persons there engaged in the same line of business as yourself? Yes.
 3290. Is the Barrington an agricultural, pastoral, or mineral country? Both agricultural and pastoral.
 3291. What is the population of the district within a radius of 5 or 6 miles of the Barrington? I think there are about thirty farmers there.
 3292. Do you know anything about this proposed line of railway to connect Taree with Maitland, and the main line to Sydney? I know the country well from Dungog to Taree.
 3293. Are you aware that this line is estimated to cost nearly £1,000,000? Yes; I understand that it is estimated to cost about £1,000,000.
 3294. And that at the onset, after allowing liberally for the income as against the expenditure, it would involve a loss of about £31,000 per annum;—do you think that it would be a good thing to construct it under those conditions? Yes, I do. I think that eventually it would pay, although I am sure it would not pay at first.
 3295. What is the class of country between Dungog and Taree along the proposed route? There is both good and bad land.
 3296. Is it a pastoral or an agricultural country? Mostly pastoral.

3297. Is there some very good pastoral land along the road? Not between Gloucester and Dungog.
3298. But from Dungog to Taree? Yes, there is. Once you leave the Avon there is very good pastoral country. N. Bell.
31 May, 1898.
3299. Do you know the A.A. Company's property pretty well? Yes.
3300. If the railway were to go through that estate I suppose it would have the effect of creating large settlements? I cannot answer that, because the company might not let their land. I do not know if they would let it or sell it.
3301. Supposing that they were to sell it, and a line of railway ran through it, do you think it would lead to settlement? Yes; I am sure it would—to a large extent, too.
3302. *Temporary Chairman.*] What do you grow principally? Maize, wheat, and potatoes, &c.
3303. How many bushels of wheat and maize do you get to the acre on the average? Last season I had 30 bushels of wheat to the acre, and about the same yield of maize, but it was not a good crop.
3304. How many tons of potatoes do you get to the acre? I have grown up to about 6 tons to the acre.
3305. Have you travelled through any other part of New South Wales much? Yes; I was farming on the Tweed River for six years.
3306. How would you compare the land in this district with the land on the Tweed? I do not consider that our land here is anything like the Tweed River for maize. This is, I consider, wheat country.
3307. Do you grow wheat on the flats? Yes, we grow wheat on the flats. There are plenty of ridges that will grow splendid wheat.
3308. Are they comparatively free from stones? There may be odd stones, but I consider that many of these ridges are good wheat country.
3309. They are so far free from stones that you could grow wheat there? Yes; I consider that any land that you can plough, so long as the soil is good enough, is good enough for wheat.
3310. If dry enough? Yes.
3311. Where do you have your wheat gristed? At Dungog.
3312. What sort of flour does it make? Splendid flour. We never had a good mill until this year in Dungog, and we had splendid roller flour this year, equal to any you could get in the market.
3313. Any rust in the district now? No.
3314. Any smut? No. If you treat your wheat properly with bluestone you will have no smut; but if you sow it dry for two years you will get smut.
3315. I suppose you consider yourself a practical farmer? Yes, I do.
3316. And you think that this district will grow wheat to advantage? I do.
3317. If you were to have railway communication, do you think you could grow wheat, and successfully compete with wheat in Sydney when it was down to 2s. 6d. a bushel? I do not think that it would cost us much more to send wheat to Sydney than it costs to send it from Tamworth and other places.
3318. And therefore you think you could successfully compete with them? Yes, I do.
3319. Do you think that you could grow wheat on, say, 20,000 or 30,000 acres in the whole of this district? Yes, I do.
3320. And you could grow it sufficiently well to compete with other parts of the Colony? Yes, I think so.
3321. I suppose you are aware that there is no immediate prospect of this railway paying? I never thought there was.
3322. Do you think that if the railway were constructed very large areas of land would be taken up and cultivated? I am sure they would be.
3323. In the event of the A.A. Company not selling their land, what room is there for more people to come into the district;—what land could they get? We could use land now utilised for grazing and wheat-growing.
3324. How much land do you lease? I lease 160 acres on the farm; but I am a shareholder in a company with 6,000 or 7,000 acres.
3325. Do you think, if the railway were constructed, and you had ready means of getting your produce to market, you would cultivate a larger area of land? Yes, I do think so.

WEDNESDAY, 1 JUNE, 1898.

[The Committee met at Krambach, at 2 p.m.]

Present:—

FRANCIS AUGUSTUS WRIGHT, Esq. (TEMPORARY CHAIRMAN).

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

John James Gallagher, hotel proprietor, Krambach, sworn, and examined:—

3326. *Temporary Chairman.*] How long have you been residing here? I have been in the district over twenty-two years—not in this place, but within 5 miles of it.
3327. Do you know the surveyed route of the proposed railway from Gloucester to Taree? I know two lines that were surveyed last year.
3328. Do you know the one from Gloucester? Yes.
3329. Does that come down Khoribakh Creek? Yes.
3330. *Mr. Fegan.*] Are you carrying on any other business besides that of a hotel-keeper? Yes; I am farming and grazing as well.
3331. How many acres have you? About 1,100.
3332. Where? In four separate places. This block is one of the four. They are all within about 5 miles from here.
3333. Would you name the different places? I have one place $\frac{1}{2}$ a mile up the Kundibakh Creek— $\frac{1}{2}$ a mile to the west from here; I have another place east from here about $1\frac{1}{2}$ mile; and I have another about $3\frac{1}{2}$ miles from here, south-east; and another about 5 miles from here, south.
3334. Do you know the route of the proposed line from Maitland *via* Paterson, Dungog, Gloucester, and on to Taree? Yes; I know it pretty well. J. J. Gallagher.
1 June, 1898.

3335.

- J. J. Gallagher.
1 June, 1898.
3335. You say you know another surveyed route? Yes; I know the Bulladelah line.
3336. Do you know the country very well that a surveyed route passed through *viâ* Bulladelah? I know pretty well every mile of the country.
3337. The present proposal under notice is to take a line from Maitland *viâ* Paterson, Dungog, Gloucester and the Barrington to Taree;—having an intimate knowledge of that country, do you think that this line, if it were constructed, would meet the requirements of the district? I think it would if we could tap it about Lower Ganghat by having a platform there before crossing over the Manning, and if we had a road opened up from Belbora, about 8 miles from here, that road going in a northerly direction from Belbora to the railway. That would enable all the traffic from this neighbourhood to go out there, and would take the bulk of it in under a distance of 20 miles.
3338. Therefore, taking the whole district, that line would meet its requirements as well as any other proposed route? Yes, it would.
3339. Would you mind giving us a description of the country within a radius of 10 miles of Krumbach? All on the eastern side of the road between here and Gloucester is very good country. Most of the creeks head up there under the mountains, and there is a lot of brush land—good soil, but some of the country hilly. It is very rich soil, well adapted for fruit-growing or dairying purposes, if cleared. It would make splendid grazing country.
3340. What fruit do you grow here? Lemons and oranges grow here wild, anywhere in the bush, and peaches grow well here. If it were not for the flying-foxes we could fatten hundreds of pigs on the peaches that we could grow on the farms.
3341. Any other fruits? Grapes.
3342. The principal fruits would be oranges, lemons, grapes, and peaches? Yes; all stone fruits would grow here.
3343. Has wheat-growing been tried within the district you have mentioned? Yes; I have grown wheat myself for several years.
3344. To what extent? I have not grown it very extensively—8 or 10 acres—and I have had an average yield of over 30 bushels to the acre.
3345. You just grew that for feed, I suppose? Oh, no.
3346. To sell? Yes; I sold over 300 bushels in the Sydney market this year.
3347. Have you grown anything else? Yes; I have grown maize ever since I came to the district continuously. Pig-raising is what I have principally gone in for. It has been only on two or three occasions that I have tried wheat-growing.
3348. Any oats or barley? Yes, both. Wheat, oats, and barley all grow well here.
3349. They have all been grown here to your knowledge? Yes; I have grown them all myself.
3350. Therefore you can speak with certainty as to the utilisation of the soil by growing those crops? Yes.
3351. How did you send your wheat to Sydney? By steamer from Forster.
3352. How many miles is Forster from here? It is about 24 miles from here to Forster, but the drogher comes up the river to within 10 miles of Krumbach.
3353. How far was your wheat-land from there? It would be about 2 miles farther than from here. It is the farm farthest from here.
3354. Making the total number of miles of cartage how many? Twelve miles.
3355. What do you pay for that? I pay the steamer 1s. 6d. a bag, including drogher charges.
3356. What do you pay for road-carriage? Ninepence a bag.
3357. That would make 2s. 3d. a bag? Yes.
3358. That would be about 6½d. a bushel? Yes.
3359. That took it to the market for you? Yes.
3360. Did you get 3s. 6d. last year? I think I got 3s. 8d. for last season's crop.
3361. That would pay you very well? Yes, it would pay. The reaping, of course, is very expensive here, in consequence of the machinery. That is the only drawback in wheat-growing.
3362. Was that land virgin soil when you got it? Yes.
3363. Had you to clear it? Yes. I felled the timber all myself.
3364. And prepared the land for the plough? Yes.
3365. What did it cost you in the first place for clearing? To take a crop of wheat off does not mean clearing the ground properly. You can cultivate and grow wheat amongst the stumps when you have got the trees felled and the logs all off. The most expensive part of the clearing is taking the stumps out.
3366. Do you use a stump-jumper? No; we just plough round the stumps.
3367. What did it cost you approximately? The land I grew that wheat on I suppose cost me about £2 an acre in the way I had it cleared to grow the wheat on it.
3368. That does not include, of course, putting in your wheat and so forth? No; that had nothing to do with ploughing or preparing the land—merely taking the timber off.
3369. That includes everything in the way of clearing? Yes.
3370. How much per acre does it cost for ploughing, sowing, and reaping? About 25 or 30 shillings per acre.
3371. What is the lowest possible price for which you could grow wheat to give you, not a large, but a fair return? I consider that if I had the ground cleared, so that I could work a stripper on it, I could make wheat-growing pay at 2s. 6d. a bushel.
3372. That is the lowest rate at which you could make it pay? Yes, if it grew well, if there were no blight or rust.
3373. That is, taking into consideration about 25 bushels to the acre? Yes; that would be a reasonably fair average.
3374. Do the people living about here desire railway communication? I believe they do.
3375. You yourself, among the number, do? Certainly.
3376. And you have heard, I suppose, other people make the same remark? I have. I think they are all very anxious to get a railway.
3377. The total estimated cost of this railway from Maitland to Taree is £982,283, not inclusive of land resumption, the annual expenditure is estimated at £49,000, and the annual revenue at £18,000, leaving a deficiency of £31,000 per annum;—do you think that it would be a wise policy to construct the line under those conditions? I think so.

J. J.
Gallagher:
1 June, 1898.

3378. What are your reasons for thinking so? I think that numerous industries would spring up if the line were constructed which are not now in existence at all in this district. There are hundreds of acres of land that would hardly ever be made use of if a railway does not come along this way, but which would be cleared if a railway were passing through, for instance, the high lands back from here, farther back from navigation than we are, would be closer to the railway line, and they are well adapted for growing fruit or for dairying.

3379. Is dairying carried on extensively about here? They are just about starting it. There are not many at it yet; but they are very well satisfied with the results so far, and I think that in a very few years it will be a big industry here.

3380. Do you know how the major portion of the land about here is held—the A. A. Company's Estate does not extend so far? No. They are principally freeholders.

3381. You say the A. A. Company's land does not extend so far as this? No; it does not come to within between 10 and 12 miles from here. That is where you cross over the company's boundary.

3382. Is the major portion of the freehold land about here held by small settlers? Yes; the holdings are nearly all small ones.

3383. What is the size of the average holding? I suppose that it would be about 150 acres.

3384. How far are you from Taree? About 22 miles by road.

3385. I understood you to say that by having a railway station at Lower Ganghat, that would bring you within 8 miles of the railway? No, about 15 miles; it would be 7 or 8 miles from this road.

3386. Is there a road constructed to Ganghat now? No, there is not.

3387. So that would entail the cost of a new road? Yes, for a distance of about 7 or 8 miles.

3388. And you have a good road to Taree? Yes; but we would have to cross the river.

3389. What would the difference in distance be, supposing that you had to cross the river by means of a bridge, which I suppose would have to be constructed some day whether the railway did or did not go there? It would all depend where the railway was. If the bridge were constructed between here and Wingham, at a place where they have talked about erecting a bridge, that would lengthen the distance considerably.

3390. By going to Taree you would be going farther away from the railway, and have more haulage by road? Yes. It would be out of the question for any produce to go from here to Taree, to be sent by rail from Taree.

3391. You are very emphatic in saying that the people of the district which you have described really require more facilities to get to market, and that those facilities would be afforded by a railway? Yes. There is a lot of perishable produce here which never finds its way into the market now owing to the delay of the steamers.

3392. *Mr. Black.*] As to the clearing of your land;—do the stumps burn out well here? It all depends on the seasons. In dry seasons they burn out tolerably well, but in wet seasons it is very expensive to burn them out.

3393. Otherwise you would have to grub them? Yes.

3394. *Temporary Chairman.*] You say that the whole of the land around here is freehold? What I mean by freehold is, held under free selection and becoming freehold.

3395. I suppose the flats on the creeks are selected? Principally.

3396. Are the mountains also selected? Not many.

3397. They are held under conditional lease, I suppose? The majority of them are taken.

3398. Can you give the Committee any idea of the population within 10 miles of where we are now sitting? Within that radius there are seven schools. I cannot say what the population is, but all those schools are well attended.

3399. Half-time or Provisional schools? No, Full-time.

3400. That is, they have not less than twelve regular attendants? They range from that up to about eighty.

3401. Do you think that the schools average twenty attendants each? More than that. I do not think that any are as low as twelve, with the exception of one.

3402. Would they average thirty? I think they would average more than thirty.

3403. Well, forty? I think you would be safe in saying an average of thirty-five.

3404. That would make something like 245 children altogether? Yes, in attendance.

3405. At what would you average the families—ten to a family? Some of the families are very large.

3406. How many families would they represent—twenty-five or thirty, do you think? More than that.

3407. Are there fifty families in the district within a 10-mile radius of this place? I think there are 150 families; you can safely say that. The principal families are up the creeks.

3408. And all these people are producers, cultivators, and graziers? Yes.

James William Gossip, farmer, Rosedale, near Stroud, sworn, and examined:—

3409. *Mr. Hassall.*] How long have you been residing in the district? I came to Stroud in 1860.

J. W. Gossip.

3410. You have been living in the district thirty-eight years? Yes.

1 June, 1898

3411. You know the country pretty well? Yes, nearly all of it.

3412. The character given to it by Mr. Gallagher you can corroborate? Yes.

3413. Mountainous country intersected by water-courses, with rich flats and grassy ridges? Yes.

3414. You think that a small area is suitable for cultivation, and a considerable area for grazing? Yes; and in some places considerable areas for cultivation.

3415. It would cost a considerable amount to clear this country? Some heavy and some medium.

3416. A large area of this country is still vacant? Yes.

3417. It would require a man of considerable means to take it in hand, and lick it into shape? Yes, to take up any large area.

3418. What area do you cultivate? About 30 acres.

3419. To where do you send your produce? To the Sydney market.

3420. Which way? By steamer from Booral wharf.

3421. How far would the proposed line of railway be from your place? About 10 miles.

3422. How far do you have to send your produce to Booral? Fourteen miles.

3423. So that you would be 4 miles nearer for carriage than you are at the present time? Yes.

3424. I suppose the rates of carriage are pretty low? Yes, the present rates by steamer are.

3425.

- J. W. Gossip. 3425. What do you send away in the shape of produce? Maize, wheat, pigs, and poultry.
 3426. What does the carriage of maize cost you a bag? Maize and wheat 1s. a bag from Booral to Newcastle.
 1 June, 1898. 3427. And from your place to Booral, how much? My own teams do the carting, but I should say that about 6d. a bag would cover the cost.
 3428. That would be about 1s. 6d. a bag through to the market? Yes.
 3429. Have you started dairying yet? No, I do not do any dairying.
 3430. Do you know whether the dairying industry is on the increase? I think it is, but I cannot say for certain about the Stroud part of the district.
 3431. You think it is probable that people will go in for dairying about here? Yes.
 3432. Can you corroborate the other evidence given by Mr. Gallagher? Yes.
 3433. Have you anything you can add? Mr. Gallagher forgot to say that tobacco is grown about here and grows fairly well.
 3434. You think you can rely on a good crop of decent quality? Yes; tobacco sent from here brings the highest price in the Sydney market.
 3435. Is there a first-class road from your place to Booral? Yes.
 3436. The roads in this district are generally very good, are they not? Yes.
 3437. *Temporary Chairman.*] I suppose that, if the proposed railway were constructed, you would not patronise it for your heavy produce, would you? Yes, I think so, for the simple reason that we have a vessel in only once a week, and we are not sure of getting it then, for it is only a small coaster that runs to Newcastle.
 3438. Newcastle is your nearest market? Yes, it is; but I do not deal with Newcastle.
 3439. You deal with Sydney? Yes.
 3440. You are aware that the cost of carriage from your place to Sydney by rail would be much more than the carriage costs you now? Certainly.
 3441. But still you would patronise the railway? Yes; because I think it would be more advantageous to me.
 3442. Giving you a market whenever you want it? Yes, I would have the market, and could get the highest market prices.

THURSDAY, 2 JUNE, 1898.

[The Committee met at the Court-house, Taree, at 10 a.m.]

Present:—

FRANCIS AUGUSTUS WRIGHT, Esq. (TEMPORARY CHAIRMAN.)

The Hon. DANIEL O'CONNOR.
 JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.
 GEORGE BLACK, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

John Thomson, Mayor of Taree, sworn, and examined:—

- J. Thomson. 3443. *Temporary Chairman.*] You are president of the local railway league? Yes.
 3444. How long have you resided here? Twenty-six years.
 2 June, 1898. 3445. In business all the time? Yes.
 3446. Will you kindly make a statement in regard to the proposal before the Committee? I am of opinion that the railway as proposed, from Maitland to Taree, is in the best interests of the country so far as it represents a section of the line from Maitland to Brisbane—that is, to connect the whole of the North Coast with the capital cities of New South Wales and Queensland.
 3447. The present inquiry of the Committee is limited to the construction of a railway from Maitland to Taree? Anything that I shall say will not be as to the construction of a line north from here, but as to the now proposed line forming part of a through line to Queensland. I hold that in that respect the proposed line forms part of a national work, which, when completed, would develop the country, would open up communication between Sydney and the whole of the intermediate districts between there and Brisbane, and would have the effect of settling a very large population on what is admitted to be the richest portion of this Colony. We hold that the population now on the North Coast, in all these intermediate districts, is nothing like what the country is capable of supporting. A large part of the district on the northern rivers is already peopled to some extent, and the land is used for agricultural purposes; but we hold that a large quantity of land now used for pastoral purposes, lying a little to the westward, and out of the reach of the rivers, is particularly adapted to the growth of wheat and other products of a similar character, and that, by that means, the Government would be able to dispose of land not now alienated, and the Colony would have the benefit of having the districts more fully peopled, and consequently more developed. We think that, on that account, the line, if not a paying concern from the very start, which we think it would be, would pay in an indirect way by helping the development of the country and giving facilities for settling people on the land. We take it that this is one of the principal objects of good government, and we know from the nature of the soil, climate, and rainfall that such would be the case. Also, for defence purposes, we consider that no arrangements would be complete without a system of North Coast Railway communication, so that troops might be carried from one place to another without hindrance and without interruption. Those, I think, are the principal reasons why we argue in favour of the construction of the line from a national point of view. We also argue that, as a work for the convenience of the people now living on the land it is an absolute necessity. The people are suffering from a variety of circumstances, principally the want of regular communication between here and Sydney, to get their products to market, and also by detention of the travelling public. We daresay it may be argued—and rightly too, we admit—that railway communication might not be so cheap, on the face of it, as water-carriage; but we hold that, with the present detentions and the loss incurred by the people, they are disposed to pay even a higher rate for railway communication than they would pay for water-carriage. We are willing to admit that there are portions of the northern rivers which will not be served as well by railway communication as by water; but, on the other hand, it would develop parts of the country which

are

are away from the rivers, and from which land carriage by teams is very expensive, whilst the route which it is proposed the line shall traverse would go through districts where it will not pay to go in for agricultural pursuits if you have to convey the produce to water frontages. These are the reasons that we advance in favour of the construction of the line.

J. Thomson.
2 June, 1898.

3448. You are aware that the estimated cost of construction is £982,000, exclusive of the resumption of land, and you are probably also aware that the annual loss to the State on the proposed line to Taree is estimated by the Traffic Manager of the New South Wales Railways—who visited the whole district, and states, in his evidence before the Committee, that his estimate is a most liberal one for freight and passengers—is £31,000 per annum, and the Traffic Manager in his evidence says he sees no possible chance of that loss being reduced for a very great number of years? I am aware of that, and I should like if possible to refute the statements that have been made in that respect, particularly as to the amount of passenger traffic that is likely to be carried by the railway. I may say that I base my calculations not on any imaginary basis, but that I base the amount of passenger traffic on the actual passenger traffic now carried from this river by steamer; and I think it will be admitted by the Committee that I am well within the mark when I say that the passenger traffic by rail with the increased convenience and regularity, and if the present never-ending trouble of sea-sickness be avoided, will be very much increased.

3449. Do you know the details of the Traffic Manager's estimate? I have read them; but I have not them before me now.

3450. They are as follows:—From Taree and district he estimates produce, 4,000 tons, at 8s. 6d., £1,700; goods, &c., 1,000 tons, at 12s. 6d., £625; goods, 500 tons, at 20s., £500; live stock, 500 trucks, at 30s., £750; total, £3,577? In that estimate I am not prepared to say that he is not very near the mark; but we hold that besides that traffic in the Taree district there will be a certain amount of traffic from Maitland in this direction, and also an intermediate traffic between the two places.

3451. The Maitland people and the Paterson and Dungog people say that they see no advantage at all to be gained from the railway—that they will not use the railway, and they see no chance of trade going north to those centres? Perhaps not; but they have the convenience for ready access to market, which the people of this district have not got; but we do send produce which is sold at Maitland and Dungog, and intermediate places; and besides the horned cattle which Mr. Harper has given us credit for, our export of pigs is very large. We ship 8,000 pigs a year, and judging from the railway rates, which are not so high, or about the same as the present steamer rates, we are certain that that traffic will go by rail. We also send away about 2,000 sheep; but the passenger traffic, I think, would be the principal item. I base that opinion on the amount of traffic that now goes by steamer, and also the fact that we are told, on indisputable authority, that persons would come overland from the Hastings and the Macleay, even if they had to travel by road, and would get on the railway at Taree.

3452. Have you prepared any estimate of the number of people that you think are likely to travel by the railway? We estimate that there will be 2,000 people at single fares, and 1,000 return from Taree alone.

3453. Mr. Harper takes the entire population of the district, and estimates that the whole of the people will travel by the railway once a year; that is the system on which his estimate is based, and he finds from past experience that that is a very liberal estimate? I grant it may be a liberal estimate just for the immediate neighbourhood; but we hold, and rightly, I think, that that population basis is not a correct one, and that traffic will be afforded by population outside our neighbourhood, and outside the area from which Mr. Harper has calculated it would come.

3454. He has also reckoned on getting a lot of northern traffic, and he estimates the passenger traffic at £6,000 per annum? That is for Sydney only.

3455. He gives that as the whole estimate for the line? We are of opinion, and we base it on the present steamer traffic, that we will have at least 2,000 people who would go at single fares to Sydney and 1,000 return. We also estimate that there will be at least 500 people travelling annually from here to Maitland; and we also estimate an intermediate traffic of at least 500 people between the districts *en route* from Maitland, and we also estimate from that there will be at least 3,000 persons per annum travelling between Wingham, on the Manning, and Taree.

3456. You may tell the Committee what your impression is as to the possible competition of the water carriage with the railway; of course, you are aware that the Committee have before them the question of spending a considerable sum of money to improve the entrance to the Manning River;—do you, in view of that fact, and supposing that that work be carried out, think that there is any chance of the railway, if constructed, obtaining the heavy traffic, such as maize, timber, and so forth? I do not think that I should be right in telling the Committee that it would get the whole of that traffic. I believe that from the lower river, where a large portion of the maize is grown—and maize is nearly their only product now with the exception of dairy produce—the maize will go by the boats, for the simple reason that from Taree downwards most of the people are settled on lands which lie between two natural channels of the river, and they are better served by water than by road; but we hold that from Taree upwards the heavy traffic would go by the railway, for the simple reason that by that means the people would avoid the long haulage they now have.

3457. Are you aware what it would cost to take maize from Taree to Maitland by rail, based on the lowest railway rates? Yes.

3458. Thirteen shillings and a penny a ton? People are now paying 10s., and besides that they have haulage in many cases of from 10 to 20 miles.

3459. They would have that under any circumstances, I suppose? They would not have it on the line. Most of them would be adjacent to the line. I am speaking more particularly of the districts about Wingham, where there is a very large production of maize and a very rich bit of country; and I am disposed to think the whole of that produce would go by rail.

3460. In the event of the proposed harbour improvements being carried out, and the railway being constructed, is there not a possibility, or indeed a strong probability, of the steamer freights being considerably reduced in opposition to the railway? There is a possibility; but I am disposed to think that it will not militate against the railway, even as regards the heavy traffic, and certainly not as regards the passenger traffic.

3461. You think that with water-carriage 5s. a ton less than the railway carriage, the steamers would not capture all the traffic? I do not think that the question is likely to arise, for if you reduce the present rate by 5s., that makes it 7s. 6d.; and so far as I know there is no district served at 5s. a ton by steamer even where the railway and water compete.

- J. Thomson. 3462. The contemplated railway charge is 3s. above what you pay at the present time;—is there any possibility of the boats reducing their rates, and thus making the difference between them and the railway only 5s. ? I do not think the steamers are likely to do so.
- 2 June, 1898. 3463. You are aware that the experience of the world is that water-carriage is almost always cheaper than railway-carriage, for heavy goods? But my contention is that the heavy freights you are now arguing on are those carried at very bedrock prices by the steamers; and, furthermore, I have not credited the railway with any back freights, such as store goods, on the grounds you have mentioned, because even comparing the high charges made by the boats now and what is likely to be charged for back freights on the railway, I do not think that there is any chance of those goods being carried by rail, but that they will still be sea-borne.
3464. Your contention, to put it in the shortest possible form, is that notwithstanding the possibility of competition by steamer, you think that if the railway were constructed a great deal of the traffic of the district could be captured by the railway? I am of that opinion.
3465. Almost the whole of the passenger traffic, I suppose? Yes.
3466. And the live-stock traffic? Yes.
3467. And commodities sold by the storekeepers, which are conveyed in light parcels? Yes. You will understand that I do not think that certain other goods that come by steamer, such as case-goods, sugar, and flour, are likely to be carried by rail.
3468. The heavy goods, you think, will be largely retained by the steamers both ways? I think so.
3469. But you think that there will be sufficient passenger and other traffic from the district to justify the construction of the line, if it form a section of a railway to connect the capitals of New South Wales and Queensland? I do.
3470. Putting the other aspect of the question—that the railway is to come to Taree and remain for all time at Taree as the terminus;—what is your opinion about the possibility of its paying then? My opinion is that it would not pay.
3471. You know the country between here and Maitland? I do.
3472. What do you consider it is most suitable for? I consider that a great deal of it—not exactly adjacent to the proposed line, but within easy access of it—is capable of growing wheat and other cereals.
3473. You are aware that for 52 miles the railway would pass through the estate of the A.A. Company? I am; and I may say, in justification of that, that my experience is that people prefer to be tenants of the A.A. Company rather than of the Crown.
3474. Are the terms easier? Yes, much easier; and the terms offered by the company as regards possession are very much more acceptable to the people. My statements are borne out by persons who have been tenants of the company, and are tenants now.
3475. Do you know the entire population that is to be served by the railway—that is, taking Taree and the district down to Paterson? I could not say the entire population.
3476. According to the Statistician's computation, about 11,000 people would be affected by the line; the entire population comes to 13,000 odd; but he takes off 2,000 who are already served by railway—for instance, Clarencetown, Seaham, and other places in the immediate vicinity of Maitland? I am not prepared from personal knowledge to dispute that statement.
3477. One of your arguments in favour of the construction of this line was that it would form a ready means of defence—that to effectually defend the coast districts of New South Wales they require railway communication so that they may move bodies of troops rapidly from place to place? I have been given to understand that that is desirable.
3478. What is the value of land in Taree and its neighbourhood—I mean the approximate value of agricultural land (say) on the Manning River? First-class agricultural land has been sold within the last two or three years in the neighbourhood of Taree for as high a price as £30 an acre; but, taking the river as a whole, the agricultural lands on the river banks should be worth £20 an acre.
3479. That is the river flats? Yes.
3480. Would any large area sell at that price? I think that all the available lands on the river flats have already been taken up.
3481. And are not for sale? Not on the river flats, but there other lands for sale.
3482. The back pasture lands;—what, on the average, is the value per acre of those alienated lands? The value per acre now of lands used for pastoral purposes would, I think, be from £2 to £2 10s. per acre, on the average.
3483. Is the dairying industry extending in this district? It is going along very rapidly—more rapidly, I think, in this district than in any other.
3484. The lands useless for agricultural purposes are being largely used for dairying purposes? Yes; and second-class agricultural land is also being used for dairying purposes.
3485. What is the population of Taree? In the municipal district, about 950.
3486. What is the total population of the Taree district? The population of the Manning police district, according to the last police returns, was 8,121. The electoral district is somewhat larger than the police district.
3487. We have a return from the Government Statistician, stating that the population in the county of Macquarie is 3,210? In the district of the Manning we also include a large part of the county of Gloucester. The police district of the Manning extends as far south as Wallamba, which is 18 miles from here.
3488. The population of Taree is returned by the Government Statistician as 730; Wingham, 570; Oxley Island, 365; Mitchell Island, 365; Coopernook, 320; Croki, 75; Cundletown, 330; Dumaresq Island, 240; Ghinni Ghinni, 120; and Killawarra, 95? But I submit that some of the areas mentioned there are only little villages here and there, and do not represent the whole population. There is a scattered population not mentioned there. I may be allowed to state that in a letter received from the Government Statistician, dated 21st January, 1898, he says that the estimated population up to 31st December, 1897, for the county of Macquarie was as follows:—Males, 7,675; females, 6,755; total, 14,430.
3489. I may state that the computation I have is for a distance of 10 miles outside the railway line on both sides, not for the total population; therefore, the discrepancy between your statement and this need not strike you so much, for, taking 10 miles on either side of the line, as the distance within which the people

people would be affected by the line, the population given for the county of Macquarie within that distance is 3,210? We hold that a larger radius than 10 miles would be served by the railway. Perhaps it may serve the purpose of the Committee if I submit certain figures without reading them. I now hand in a return of the population prepared from the Government Statistician's returns by the Secretary of the Railway League. I submit these figures as evidence from the League, and as compiled by the Secretary from authoritative statistics.

J. Thomson.
2 June, 1898.

3490. Taken from the Government Statistician's returns? Yes; and from police reports and other available returns:—

Population.		
County Macquarie, 1891		12,344
County Macquarie, 31st December, 1897		14,300
County Gloucester, estimated		15,000
Electorates.		
	1881.	1891.
Durham	5,945	6,733
Gloucester	5,643	6,366
Hastings and Manning	9,309	13,428
Macleay	7,123	11,530
Grafton	7,744	9,852
Clarence	6,752	8,221
Richmond	9,266	22,321
	51,782	78,451

3491. Your contention is that, while the figures of the Government Statistician may be correct within a radius of 10 miles of the railway, a population far beyond that distance will be served by the railway if it be constructed? Yes.

3492. And, therefore, the figures given to us by the Government Statistician do not at all represent the population that would be served by the railway if it were constructed? Yes; that is my contention.

3493. Do you know if there are any unalienated Crown lands within a reasonable distance that are of any value? From my own personal knowledge I am not prepared to say that there are, but I will submit evidence which I think will satisfy you on that point, evidence to you will be given by Mr. Flett who is capable of giving evidence on that point.

3494. You do not know much about the unalienated Crown lands? No; except from hearsay.

3495. But I suppose that you as an old resident do know that the lands within easy distance of water-carriage which were any good have been alienated and taken up? They have been to a great extent, but we submit that land outside the influence of water-carriage is not being used for cultivation on account of the distance that the produce would have to be conveyed to the water.

3496. I suppose that a good deal of alienated land suitable for cultivation has not been brought under cultivation by reason of the disabilities in securing transport? Yes, and further than that the land under cultivation is not cultivated to the extent it would be with better means of communication.

3497. You think that there would be more extensive cultivation if there were better means of communication? Yes. People now only grow what they think will keep, because it is not perishable stuff. I should like the Committee, in considering the probabilities of traffic, to bear in mind the traffic that is likely to accrue, and the advantages likely to be conferred on this district by our having another market—at Newcastle and intermediate places, which we do not have under existing circumstances. I am of opinion that the bulk of the produce of this district would be shipped to Newcastle, inasmuch that in some cases, and during most times of the year, the Newcastle market is a better market than Sydney. It will be noticed that the cost of transit will be so much reduced that it will make the cost of conveyance of heavy products from here to Newcastle by rail, nearly the same as we are now paying for their conveyance to Sydney by boat.

3498. Then your contention, in general terms, is that the construction of this railway will create traffic for itself which does not exist at present? Quite so.

Ernest Frederick Meares, bank manager, Taree, sworn, and examined:—

3499. *Mr. Black.*] Of what Bank are you the manager? The Commercial Bank.

E. F. Meares.
2 June, 1898.

3500. How long have you been resident here? About five years.

3501. You have a statement to make? As secretary to the Railway League I have a statement to submit, but the Mayor has, in reply to the Chairman, given the whole of it in substance, and I do not think it would be wise for me to take up your time in repeating what he has said.

3502. Do you agree with the previous witness? Yes.

3503. In every particular? As a general rule I do. The estimates were prepared by us together.

3504. You know the estimated cost of the railway—nearly £1,000,000? Yes.

3505. About £9,000 per mile would be the average cost, and in addition to that large sums might have to be paid for land required for railway purposes? Yes, I believe that is probable.

3506. You know that the probable loss on the railway, including interest on the cost of construction and maintenance expenses, apart from the money expended for resumption of land, would be about £31,000 per annum? I believe that is the estimate of the Commissioners.

3507. Do you think that, under such circumstances, the State would be justified in undertaking such a large expenditure? Not if that estimate were borne out by the facts; but I am of the opinion that that estimate is a high one, and that the estimate of traffic made by the Railway Commissioners is a small one compared with what the actual results would be.

3508. Do you think that if the railway were constructed it would be used to any large extent by the people of the district? Decidedly; for passenger traffic particularly, and for stock traffic.

3509. What is the passenger fare by boat to Sydney? Twenty-five shilling single, £2 return.

3510. Is there only one class on the boats? There is a steerage class, but very few people travel by it.

3511. Do you know the cost by steerage? No, I do not.

3512. Do you think that those who wished to travel to Newcastle and Sydney would prefer to go by train? I am absolutely certain of it. The passage by water is so uncomfortable and repugnant to the majority of the people that, as a matter of fact, no one travels by water who can possibly avoid it. I know that I myself always go overland by coach in preference to going by water.

3513.

- E. F. Meares. 3513. Do you think that there would be twenty people leaving town each day by the railway? No, I hardly think that; I mean, not for the long-distance journey. Our estimate is 2,000 single fares per annum and 1,000 return, giving a total revenue of about £5,000. Of course the railway would serve a very considerable distance farther back in the direction of the Hastings and the Macleay. In making this statement we have endeavoured to put before the Committee exactly what we conceived to be a fair estimate, without desiring to colour the matter in any way.
3514. How is the land in this neighbourhood principally used? Principally for agriculture so far, but the dairying industry is making particularly rapid strides at present.
3515. Is there any room for further development in the district? Yes; there is a very large area of ground that at present is practically used for nothing which will come into use in connection with dairying—forest land that will not fatten stock or anything of that sort, and which is held in small areas.
3516. Do you say that the forest land will not fatten stock? Yes.
3517. If it will not fatten stock, do you think it is good enough for agricultural or dairying purposes? For dairying purposes certainly. People having fattening lands on the banks of the river would require paddocks at the back blocks for their stock; it is not essential that that land should be fattening land.
3518. Are there any obstacles now existing in the way of further settlement in the district? Perhaps not in the immediate neighbourhood of Taree, but on the upper river, where grain or anything of the kind that is grown has to be brought down to the river over very hilly country. Maize and that kind of produce can only be brought in very small quantities, and it requires perhaps a day to bring down a very few bags, and it would take a man with a decent crop weeks to get it to the water's edge.
3519. Would that not be true with the railway as well as the steamer? Yes; but if the present route proposed is adopted, it will serve a large amount of country on the upper river, going within a very few miles of it, and saving them at least 15 or 16 miles of haulage, which is a very considerable item in cases of that sort.

Henry Winter Flett, grazier and farmer, Taree, sworn, and examined:—

- H. W. Flett. 3520. *Mr. O'Connor.*] How long have you been in the district? I am a native of the town, and reside immediately adjoining it.
- 2 June, 1898. 3521. How much land have you? I have none at present of my own, but I am renting land.
3522. How much land do you occupy? About 7,000 acres.
3523. What is it principally;—for cattle or sheep? Cattle.
3524. Any agricultural land? Yes; I farm a little.
3525. You know the proposal for the construction of this railway to connect Taree with Maitland? Yes.
3526. Will you kindly in your own way give the reasons why you are in favour of the construction of this line or against it? I should like to go a little further, and to say that I agree with the line, if constructed from Maitland through the whole length of the North Coast, for I believe that if that line were constructed, it would pay.
3527. Not stopping at Taree as the terminus, but an intercolonial line? Yes; I believe it was the greatest injustice that has ever been put on the North Coast to propose the railway as a line to stop at Taree.
3528. In your opinion, a railway right through to Queensland should be regarded as a national work, and it is not fair to put only this section before the Committee? Yes.
3529. Supposing that Taree were made the permanent terminus, you would not see your way clear to approve of the line, in view of the fact that it is to cost nearly 1,000,000? Certainly not, if it were to stop at Taree.
3530. You do not think that that would be a good investment? No; but if the line were continued on as an intercolonial line it would pay.
3531. Are you acquainted with the country between Taree and the Queensland Border? I am, from Gloucester to the Clarence.
3532. Would you kindly tell the Committee the quality of the land, and what it is capable of—whether it is pastoral or agricultural land, Crown land, or freehold or leasehold? It is leasehold and freehold, the same as the land you have come through, with the exception of the A.A. Company's land. The land through which the railway would pass is something similar to that which you have seen in coming here; but I should like to state further, that the present surveyed line passes through the worst portion of our North Coast district. Our best land lies practically near it, but away from it.
3533. At what distance? This line crosses the Manning River at the first place where it touches the Manning, about 10 miles above navigation. That is the first good land it touches on our rivers. Our river does not branch until immediately above where the railway crosses. The first branch of our river you met at Avon Creek, about 7 or 8 miles on the other side of Gloucester. Our river, about 6 miles above, branches again into two branches, and those rivers branch away to the north. All our land above is fair land. Our best grazing land is above where the railway touches, and all the traffic from there would be available at Woodside. Our country is all very good country, the soil in many places is suitable for the production of wheat and other cereals. It is not maize land. It is under the coast range of New England. All that produce would come to meet the railway at Woodside, for the reason that the main range running down from New England would prevent traffic from going up the ranges to the present main line. The Manning and the minor waters head almost together, overlapping the Hastings on the most southern point of New England. Of course, the greater portion of that produce would come down to Gloucester; but within a radius of 30 or 40 miles the produce would meet the railway at the crossing at Woodside. The railway could not strike that country well, because there are great ranges that run down from the main range. The first difficult range you meet is near Dungog. That is a spur from the great ranges—uneven ranges between the rivers. The next is the one you meet between here and Gloucester. Practically there is not another range which the railway would meet between here and the Clarence—nothing like the extent of range that you meet with in those two instances. Along the route between here and Port Macquarie, the land is no good. Of course, between the rivers the land is no good; but when you get from one river to another the land is good.
3534. What is the quality of the land on the other side of the Clarence? I do not know that.
3535. What area of country do you think this railway would benefit, or to what extent would it attract settlement? I am hardly prepared to say, but from my knowledge of the country, I am prepared to say that it would attract settlement.

3536. What evidence can you give us with regard to the bulk of the land between here and the suggested terminus of a line to connect New South Wales with Queensland? Our lands on the northern rivers are all pretty well similar in value—that is the good lands. H. W. Flett.
2 June, 1898.

3537. What is the quality of the land on the Macleay, the Nambucca, the Bellinger, and the Hastings? Their good lands are similar to ours.

3538. You know that the proposed railway to Taree is to cost nearly £9,000 a mile? Yes.

3539. As you said very clearly before, you cannot see your way from a national standpoint to incur an expenditure that would entail at the commencement a loss of £31,000 per annum? No.

3540. But in view of the valuable nature of the land between here and the Queensland Border, you think that the estimated loss would be much reduced; that owing to the country being of a better class the remainder of the railway will cost less to construct, and it would attract population and encourage settlement, and bring in a larger revenue? Yes.

3541. How would it be affected by the facilities afforded by the vessels going from the various rivers to Sydney? I think, as you have heard from the other witnesses, the heavy traffic on the lower parts of the river would all go by steamer, and I think that the greater portion of the passenger traffic would be carried by rail.

3542. You know that at the present time there are proposals before this Committee, and there is a Sectional Committee now taking evidence with a view of improving all your harbours at an expenditure of tens of thousands of pounds, and if those proposals be carried out, and the harbours are improved, I think you will admit that it would be very difficult for the Government to undertake the construction of the railway under those circumstances? I think that, notwithstanding that, the railway would pay.

3543. You think that the railway on its own merits, even if facilities were offered by the improvement of the harbours would pay, because land now lying idle will be utilised? Yes; lands, the produce of which must be brought to the railway. I have a knowledge of all the lands above the navigable waters, and I know what the haulage means on the cost of produce. I think that the railway would carry a very much larger quantity of stock than has been anticipated, because stock that are fattened in these districts has all to be driven overland to Maitland, and our country has natural soft grasses, and condition is put on quickly by stock, and when stock is travelled overland, the condition which has been put on quickly wastes away quickly; consequently the loss by reason of deterioration in driving stock from here to Maitland would be equal to the rates from here to Sydney. I have been dealing in stock very considerably, and I know the shrinkage that occurs in driving to Maitland, and I would rather pay the rates to Sydney than drive stock overland to Maitland. Our cattle after being driven to Maitland, are in many instances trucked on to Sydney, and I am sure that the district above us, on the Hastings, if the railway were constructed even to Taree, would send down a great many stock that have now to be driven overland. People have stopped fattening cattle in this district for the reason that the driving of the stock was so costly and the shrinkage was so much in travelling.

3544. This is a good cattle-fattening district? Yes; all above the head of navigation. There is always a splendid rainfall.

3545. The railway would afford great facilities to cattle-owners, and enable them to send their stock to market? It would.

3546. And it would pay a squatter or free selector to send his cattle by train better than to travel them? Certainly.

3547. The present loss in travelling would be saved three or four times over by avoiding the loss from shrinkage on the road? Yes.

3548. And from that source alone a large income might be derived by the railway? Much larger than is estimated. The railway would receive all the stock from the Macleay River and the Hastings.

3549. *Mr. Fegan.*] I think you said that the proposed route does not go through the best portion of the country? Yes; I said that.

3550. Can you suggest a better route? No; I believe it is the best route, but it does not touch exactly the best of the land, because the difficulties are so great.

3551. The difficulties from an engineering point of view are so great that it would be almost impossible to go by any other route? I believe that.

3552. Therefore, considering all things, the route which the present survey traverses is the best route, so far as you know? I believe so.

3553. Therefore, you have no fault to find with the route? No.

3554. With reference to the land on either side, do you not think that the great portion of the land that the surveyed line goes through is very similar country to that on the other side of the route? No; not to the land that I have described. There is a great proportion of that land, but the land on all of these water-courses I have described is of a different nature altogether.

3555. Up to Gloucester we have got correct information as to the character of the country, and from Gloucester to Krambach we have a fair intimation of the nature of the country. The greater portion of that blue strip of country is the A. A. Co.'s Estate? I see that the line does not go through Crown lands, but goes down the Barrington. The lands I mentioned are all along up the tributaries of the Manning—all up above that.

3556. We have evidence as to the quality and character of the land as far as Krambach, and we have also got a description of the land on the north-west of the plan. The land marked brown, unalienated Crown land, we have been informed, is inferior land? Yes; it embraces the mountain spurs lying between the water-courses. The first is between the Dingo, which is a tributary of the Manning, and the Manning. Some of those lands on the tops of the mountains are table-lands, and good land.

3557. And yet, with all their goodness, they are not occupied? They are not, for the simple reason that they are too far from carriage. The Manning divides into several branches, the first, lying farthest to the south, is the Gloucester River, the next is the Bowman. You have seen none of the country on those rivers except just at Gloucester. The next is the Barrington, and then the Little Manning, the Barnet, the Nowendoc, and the No. 1 River. Those are all tributaries of the Manning, but there are other tributaries running into those rivers.

3558. You say that the summits of those mountains are unoccupied? Yes.

3559. And the reason that they are unoccupied is because the people there would at present have no facilities to get their produce to market;—I ask you now how far are those lands from the waters of the Manning, or any other navigable river? About 20 miles, I think. 3560.

- H. W. Flett. 3560. Is it a fact that in this country 20 miles is too far for the settlers to take their produce to market? No. it is not; but they have other difficulties.
- 2 June, 1898. 3561. If the summits of those mountains are such good land, the distance of 20 miles is surely not a block in the way of people reaching the market, and somebody would occupy those lands, considering that so many people want land? But it is only of recent years that similar lands have been taken up on the Richmond.
3562. But a large number of men who want land have about an equal knowledge of this country to yourself? Yes.
3563. And they wanting land so badly, do you not think that if there were such good land there they would occupy it, seeing that there is so little unalienated country about here;—is that not a fair way to put it? Yes; but I do not think that those lands will remain unoccupied very long now. I am satisfied as to the good quality of the soil there.
3564. You think, therefore, in the near future all those good table-lands would be occupied? Yes.
3565. You say that they are 20 miles from water-carriage? Yes.
3566. What is the nearest river affording water-carriage for those lands? About 3 miles below Kendal, or perhaps at Kendal there is navigable water for them.
3567. You think then that if a railway were constructed to Taree it would give them better facilities than they have already? Not if the railway is going to end at Taree.
3568. If the terminus is to be at Taree you say that those people will not be in a much better position? Not much better.
3569. Therefore, with the proposed work which is now before the Committee to give better access to the Manning, do you think that would facilitate the trade of the people here? It must benefit them.
3570. Considerably? Certainly.
3571. *Mr. Black.*] What does it cost you to drive your cattle to Maitland? That just depends on how many you take and the number of hands you have to employ in driving. I estimate the cost at 5s. per head.
3572. At what do you estimate the loss of quality in driving them to Maitland? I should say that the shrinkage of flesh is between 50 lb. and 1 cwt. on a beast in comparison with trucking.
3573. What difference would that make in the selling price of meat? The loss would be about 10s., more or less.
3574. *Mr. Hassall.*] With regard to the summits of those mountains, for what kind of occupation are they suitable for? They are suitable for dairying or agriculture. The land is good brush soil. I am speaking of the country immediately back from here—our coast range.
3575. Is it densely timbered? Yes, with black scrub.
3576. What would it cost to clear it? That would not be a very heavy item, because the timber is not big and it is all brushwood. To clear it properly if a person went in to clear it straight off the cost would be between £2 and £3 an acre, but if the timber were felled and burnt off it would not cost that amount by some degrees.
3577. You do not think that the cost of clearing it and making it suitable for occupation would be prohibitive? I do not.
3578. But still, at the same time you think that if they were cleared the present mode of carriage would suit the people there almost as well as the railway—they would not be any nearer to the railway? No; I think they would not.
3579. What would be the principal kind of stock shipped from here;—fats or stores? Principally fats. I think that the store stock would generally go on its own feet unless it were poor stock coming from a distance in times of drought to be fattened on our rivers.
3580. As a rule store stock will not bear the cost of carriage? No.
3581. It is much cheaper to drive them? Yes.
3582. You could not, therefore, look to store stock for any railway revenue? No, only fat stock.
3583. With regard to fat stock, how many trucks do you think would be sent from here in a year? I have no idea. A truck carries about ten head. Until late years I used to send in from 200 to 500 a year myself to Maitland.
3584. Would 100 cattle a week be sent from here? Not from the Manning alone, but I think that, we being so near the head of the Hastings and the Macleay, cattle from those places would be trucked from here if the railway were to stop here.
3585. The estimate is 500 trucks a week, and ten trucks would take 100 head of cattle; therefore, the estimate cannot be very far astray? Yes; I think the estimate is approximately correct.
3586. *Temporary Chairman.*] I think that Mr. Harper makes provision for 1,300 trucks a year between here and Maitland representing 13,000 head of stock; do you not think that that is a very liberal estimate of the quantity of stock to be trucked along the whole length of the line between here and Maitland? Yes, I think it is.
3587. As regards those lands shown to the east of the proposed railway, and to the north and the north-west—that land is unalienated? Yes.
3588. If those mountain tops are suitable for agriculture and are rich lands they would be suitable for grazing also? Yes, they would.
3589. Can you tell me why they have not been taken up, for we are told not only that they have not been taken up, but, also that a portion of that land to the north and north-west of Taree is open to lease as what are called waste lands, a lease of 20,000 acres being obtainable for twenty-one years for £12 per annum, and yet no one applies for it; if that is so, is it not pretty conclusive proof that that is very inferior land? I am trying to think where the situation is.
3590. A great deal of it is shown by that brown colour on the map, land not occupied? There is a large portion there which is one of the main spurs that come down from New England, and that goes to the head of the Dingo. That is all rocks. I am not speaking of soil of that nature. That soil is no good at all.
3591. And that represents a large part of that brown-coloured portion? Yes.
3592. You see the brown-coloured portion on the east side of the line towards the ocean—that is also represented to the Committee by the Crown Lands Department as being absolutely valueless, and no one will either buy it or lease it? Certainly. That is another main spur—the spur you come through when coming from Gloucester. It runs along the A. A. Company's boundary line.

3593. A further representation made to the Committee is that nearly the whole of the unalienated Crown lands are of very little value, and that being so, I want to know what scope there is for an expansion of the population? I am aware that that portion is no good. I did the assessment of that district. H. W. Flett.
2 June, 1898.
3594. If a certain area of the land is alienated and utilised by the present inhabitants, and there is no other land available for increased settlement, how is that settlement going to obtain subsistence from the soil? On those two portions you have asked me about I do not think there is any land available, but immediately behind that mountain land there is good soil and good level country.
3595. Beyond the mountain there are still good Crown lands in the district suitable for agriculture, and on which population would settle if proper facilities were given? Yes; it would carry a large population.

Peter Anthony Muscio, farmer, Purfleet, near Taree, sworn, and examined:—

3596. *Mr. Fegan.*] In which direction do you live from here? I am living on the south side of the Manning River, and opposite Taree. P. A. Muscio.
2 June, 1898.
3597. What is your area? I own only 44 acres of land, and the rest of my property I lease.
3598. Altogether how much land have you? About 144 acres of what is called river-flat land.
3599. How long have you been in this country? Forty-four years.
3600. Therefore you have a thorough knowledge of the character of the land and the requirements of the district? I have a very fair knowledge of the nature of the district, and what it is adapted for.
3601. If the proposed line were constructed, how far would the nearest point of it be to where you live? A mile.
3602. What is the nearest point of water-carriage to where you live? We carry our maize from the barn to the river, and shoot it down into the drogher.
3603. Therefore, as far as water-carriage is concerned, you are as near as you could get to it? We could not be better suited.
3604. What do you grow? We grow maize. We have been growing maize almost exclusively, but now we are growing orange-trees extensively. We are trying to raise a large orchard, with the object of supplying the English market.
3605. How many trees have you? About 1,000 trees, and my brother has about the same number. We have commenced the dairying business, and expect it will increase.
3606. Have you many trees bearing fruit at present? About fifty trees have been bearing for the last forty years.
3607. And you have been selling the fruit locally, I suppose? We have been sending it the best way we could to Sydney and elsewhere, and sometimes we have had the fruit rot on the way to Sydney—the steamers having been too long in getting there.
3608. What is the longest time that elapses between the shipping of the oranges here and their reaching their destination in Sydney? A fortnight, but that is not always the case.
3609. What is the average time? The average time, everything going all right, would be about three days from the time they are pulled and put into the case. The other day the steamer went straight away after the oranges were put on board, and they were landed in Sydney in three days. Sometimes the steamers land them in less than three days.
3610. Should not oranges keep longer than a fortnight? There is one kind that will keep longer than a fortnight, but there is one variety that will not keep a fortnight after being pulled. Mandarins will not keep more than a week without being damaged more or less.
3611. And if they are damaged that considerably reduces the price? Decidedly. So many have been damaged sometimes that what were left would not pay the freight.
3612. I suppose you send them always in cases? Yes.
3613. What do you pay? One shilling to Sydney per gin-case.
3614. How many dozen in a gin-case? About 16 dozen.
3615. So that is $\frac{1}{4}$ d. a dozen? Yes.
3616. That is not very expensive? It is too expensive for the price which the oranges realise in Sydney.
3617. What do they bring in Sydney? Sometimes 4s. 6d. a case, but more frequently 2s. 6d. per case.
3618. Then the people who buy the oranges get them much more cheaply than they sell them? I do not know what they sell them at.
3619. You send them to agents? Yes.
3620. You get about 2d. a dozen for them? We seldom get that; there is all the expense to be taken out of that.
3621. Have you tried the Newcastle market? No; we cannot try it; it is out of our reach, for the freight to Sydney and back to Newcastle would swallow up everything.
3622. Do you grow any lemons? No. We have tried, but so far we have been unsuccessful. The climate does not appear to suit them.
3623. Could not oranges be cured like lemons? Not exactly. The Lisbon lemons with very little trouble can be preserved for almost any length of time. We have not been able to preserve oranges by any means. We have seen receipts in the paper suggesting the best way to preserve oranges, and we have adopted the plan for the purpose of having oranges for ourselves in the summer, but we have always failed.
3624. But is it not a fact that it is done in countries like France and Spain? Well, it is not known to us.
3625. They send out oranges from Europe sometimes to this country? Yes. There is another thing— oranges will not stay on the trees long, and if they fall off they are worthless.
3626. You pull them when they are ripe? Yes.
3627. But if they were pulled when green, could you not keep them;—would they not ripen? We pull them in reality before they are ripe, so that they will fetch the highest price in the Sydney market. If we could find out how to preserve oranges, growing them might be a very big industry here.
3628. You say that up to the present time you have not been successful in keeping oranges more than a fortnight at a time? No; we have not.
3629. What else do you grow? We are dairying, and we shall soon be dairying extensively. We have been dairying about eighteen months, and we are pushing on the dairying business to the utmost of our power.

- P. A. Muscio. 3630. Have you a butter factory here? We have a factory almost at the door, and a very extensive creamery as well.
- 2 June, 1898. 3631. Is it a co-operative society of the farmers themselves? No; it is a private company.
3632. You send your milk to the factory? Yes.
3633. They have separators, and everything necessary to complete their work? Yes; the butter is made in the factory for the English market chiefly, and is exported.
3634. How many milking cows have you? Twenty just now, and we intend to increase the number considerably. We are laying our land down with grass chiefly for that purpose.
3635. What have you been doing with your land prior to this? We have been growing maize almost exclusively.
3636. You think that the dairying will pay you better? Yes; it will pay us better than maize. For one reason, land that has been growing maize for nearly fifty years has become exhausted for that cereal, and it has been proved by experience, as every farmer knows, that after land has been growing grass for some time it becomes again as fertile as ever.
3637. Will the difference be of so much importance as to make you place all your land under oranges and grass rather than under maize? Yes; the difference is of considerable importance.
3638. You are so satisfied with the difference that you have made the change? I will explain the difference in this way. One acre of orange-trees when in full bearing (say) when 10 or 12 years old, would remunerate the grower £50 per acre, even at the prices we are getting now.
3639. If that be so, why should you say it is better to give them to the cows, and not pull them? We cannot sell them at the present time. The price is not always the thing that is in our way.
3640. Even getting 2s. 6d. a case, if you had a market, you would be alright? Not for all the year round.
3641. Then take 3s. for an average? Yes; with 3s. for an average I believe it would pay us.
3642. In preference to maize? Decidedly.
3643. You are perfectly satisfied that dairying will pay you much better? Quite certain.
3644. Do you pay the freight and everything else out of the 2s. 6d. a case? Yes; we have to pay all charges—freight, cartage, and commission; everything comes out of that. It does not really pay us at 2s. 6d. a case.
3645. But take an average of 3s. a case? That would pay us well.
3646. How would the railway assist you in the development of either the orange-growing industry or dairying? Doubtless the railway would assist us very much in the development of the orange-growing industry.
3647. You have a butter factory almost next door to you? Exactly.
3648. Therefore, we have to dispense, so far as you are concerned, with the dairying industry? Yes.
3649. What about the orange-growing industry? The railway would benefit us in this way: We would have the Sydney market at our command; we would be able to ship oranges there with punctuality whenever we thought fit without any delay. It is not so now. We have often pulled the oranges several days before they could leave the Manning—often nine days—when there has been any rough weather. We must of necessity get the oranges ready before the steamer comes into the river, and when the weather is fine and everything favourable, so that they can get away, we perhaps make a good shot so far as the steamer is concerned. We get the oranges to Sydney in good order; but, in the event of a steamer being delayed, as often happens, especially at those times of the year when the weather is very unsettled, they get damaged more or less by the delay. As regards oranges, we think that if the railway were available, oranges at any rate could be sent to the market whenever we thought proper to send them, without let or hindrance in any way.
3650. What is your freight per case to Sydney? One shilling.
3651. What is the weight of a case? I think it would weigh about $\frac{1}{2}$ cwt.
3652. Do you think that by rail you would get it carried for 1s. 6d. a case? I could not say.
3653. Whether you would send it by boat or by railway would depend on which would be the cheaper way to send it. We would not stand so much on the question of cheapness. Our object with oranges would be to get them to the market in as good order as possible, and as soon as possible.
3654. If, instead of paying 1s. a case by boat, the railway wished to charge you 2s. a case, it would be impossible for you to send them by rail? Yes; it would.
3655. But anything within reason would pay you better than having to wait so long for the transit of oranges, which are perishable goods? Yes.
3656. So if the railway were to take them for 1s. 3d. it would pay you better to pay that 1s. 3d. for quick despatch, than 1s. with waiting? It would.
3657. Knowing the train would leave the station at the time advertised, you would be able to arrange your time for pulling the oranges better than now? Yes.
3658. Owing to the uncertainty of the time when the boats will start, and the possible delay at the bar, if you have a large number of oranges ready, they may have to remain in the cases three or four days before they are sent on board, and may take three days in transit, and that makes a great difference in the value of your oranges? Yes.
3659. And sometimes you lose the market? That is a common occurrence. We lose the market almost once every fortnight.
3660. If the proposed railway were constructed, it would give more encouragement for the production of produce, more especially perishable goods? Decidedly. I believe, also, that the land in the various localities along the line is exceedingly well adapted for the cultivation of fruit. Even on the Manning itself the fruit-growing industry would be greatly increased if the means of transit were better than they now are. Few people care about being bothered with anything that is surrounded by considerable uncertainty. The climate seems to be well adapted to fruit-growing, and if proper means of transit were given I am sure that the industry would increase. I believe, also, that if the railway were an established fact it would cause a great development to take place in various branches of the agricultural industry. There is a great quantity of land which is capable of growing good wheat crops, and if the proposed line were constructed, it would be within a reasonable distance of the line. A great many of the people of this Colony who commence farming, as we call it, are very poor people. In many cases they, with some difficulty, manage to get together sufficient money to enable them to select their land, and after that they have to struggle along for years before they can be much better off. In a great many cases they have not the means

means to buy themselves teams to convey their produce from their land for any great distance, they are so poor. I am of opinion that the line, in a great many places, would be so close to land which is capable of maintaining a population that the difficulty of land-carriage, to a very great extent, would be done away with. The fact that this section of the line is only to come to Taree is a very great drawback,—for in reality the wealth of the North Coast commences only when you get here. The proposal to construct the line only to Taree is a great disappointment after we have agitated so much for a North Coast railway. I am sorry that you are not in a position to take evidence in regard to a line farther north than Taree; but of course in building a castle we must have a foundation first.

3661. You think that this first section would be a good foundation? It would be a good foundation for one of the biggest national undertakings in the Colony. If we were to get this far, I have not the slightest doubt that it would eventually go all the way through to the Queensland Border.

3662. *Mr. Hassall.*] In dealing with this proposal for the construction of a railway from Maitland to Taree, and knowing that it would result in a loss of over £30,000 per annum, would you care to be a shareholder in the concern? No, I would not. My reason for saying that is, that not very long ago I bought a piece of land, and it will never pay me. All the privilege I have had is to buy and pay for it; but I expect my children will receive the profit of it. It will be exactly the same in connection with this railway. I am of opinion that this line will not pay us for the present, and I should be very sorry to agitate for it if I did not see a bright prospect that in the course of time, by going further, it will pay, and become one of the best paying lines in the Colony. I have not the slightest doubt about that.

3663. You look to the little speculation you have entered into in land to be profitable to your descendants? Decidedly; that was my object.

3664. The loss on the railway would have to be made up in some way;—do you think it would be fair to the people of this district to impose an additional burden of taxation on every acre of land they hold in order to make good that loss? I do believe that. There is an old saying, "that if you want to travel you must grease the wheels," and, personally, I would not object to increased taxation in order to get this blessing of the railway, for, I think, it would only be a matter of time when it would pay for itself, that is provided it went further than Taree.

3665. But you think that as a national work, and one that should be made reproductive, the line should not stop at Taree, but should extend right along the North Coast? That is my opinion, and I can give substantial reasons for saying so.

3666. You think it is not good policy to bring a railway from West Maitland to Taree and let it stay here, but that it should form part of a railway system which would connect the North Coast with the Metropolis of the Colony? That is my object, and it has been from the very beginning, but there must be a beginning with everything, and so we have made this movement, but I think we made a mistake when we did not ask for more at first.

3667. *Temporary Chairman.*] Have you a large family? Yes—ten children.

3668. How much land do you farm? I own 140 odd acres of what are known as river flats, and my two sons are occupying my land on the Hastings, 120 odd acres.

3669. You work this land yourself? Yes; I and my family.

3670. Can you give the Committee any idea what size are the average holdings of the farmers on the banks of the river Manning? I should say that 100 acres should be a good average.

3671. All the land is tilled at the present time? Yes; on the banks of the Manning River.

3672. Can a good, working, practical farmer, with his family, get a good living off 100 acres on this river? A man who understood his business could with his family get a good living off 30 acres.

3673. If the lands were further subdivided this river could sustain a very much larger farming population compared with that which is now on the land being farmed? When I say that 30 acres will support a family, of course, I speak of the choicest land—the first quality land. As regards the average of holdings, whilst a man may hold 100 or 150 acres, a great deal of it is not first class land, and therefore is not so productive.

3674. Supposing that the average holdings on the river are 150 acres, do you think 150 acres would support two families? That all depends on the quality of the land.

3675. I am speaking generally of the agricultural land on the river flats? 150 acres of agricultural land would support two families, but all the land is not fit for agriculture.

3676. I want to know from you what is the average size of the farms on the river that you consider good farming land;—do you think they are 100 or 150 acres? No; I do not think so. I think that the average farm on the Manning, of good alluvial soil, would not be 40 acres.

3677. Then there is no room for increased population on the river banks? I do not think there is much room for increased population on the river banks.

3678. But you believe that there is room farther back for a large population? I do; I am quite satisfied on that point.

Thomas Burnham Boyce, journalist, Taree, sworn, and examined:—

3679. *Mr. Hassall.*] With regard to this proposal, would you care to make a statement giving reasons why you think the construction of this line is justifiable? Perhaps I had better do so to start with. I may say that I have been a resident in this district for about twelve years, and during that period the district has made very rapid advances. I listened attentively to the figures and evidence given by the Mayor, and Mr. Meares, and other witnesses, and I fully believe that what they stated is absolutely correct.

3680. You substantially corroborate the evidence that has already been given? Yes; especially the evidence given by the Mayor and Mr. Meares. The figures given by the Mayor were carefully prepared, and they give a truthful representation of the case so far as Taree is concerned. I was a resident on the Great Northern line of railway for some eight years, at Murrurundi and Singleton, and from my knowledge of that line and my knowledge of the country along the North Coast, and of this district in particular, I believe that this proposed line would pay handsomely.

3681. Even at the estimate of cost prepared by the railway constructing authorities? Yes, even at that. I myself am of the opinion that the amount of revenue stated as likely to be derived from the line is underestimated. In fact, I think it would be a matter of impossibility, so far as the passenger traffic is concerned,

- T. B. Boyce. concerned, to estimate it, and in saying that I am guided by what I hear residents say and by my own case. I take my own case as, perhaps, a fair sample. Whereas now I visit Sydney, perhaps, once only in four or five years, I should go, perhaps, at least once in three months by railway. It would pay me to go to Sydney frequently by rail instead of risking a trip by sea with all its unpleasantness, and at times not knowing when I might be able to return, which prevents my going more frequently by boat. I prefer to suffer loss in business rather than to undertake the sea trip. If there were a railway here I could jump into the train and be certain that I would get back within a stipulated time to carry on my business, whereas if I were to go by steamer I would not know, to a few days, when I might be back.
- 2 June, 1898. 3682. That is to say, that the facilities afforded for quick transit make traffic? Yes; in this case the facilities would increase the demand. Then it would not only apply to this district. It is not an unusual thing for passengers to come over even from the Hastings now to go by steamer from this river. When we had the "Electra" running here—a superior boat to the one we have here now—it was a very ordinary thing for passengers to come from Port Macquarie and other places on the Hastings to go by the "Electra" to Sydney, because it was a shorter and quicker voyage than by their own steamer, and I am sure that in the case of a railway that would operate to a much larger extent.
3683. With regard to the country on the Manning which would be served by the proposed railway, the agricultural land is practically confined to the valley of the river and its tributaries, is it not? Yes.
3684. Can you give us any idea how far the river or the various branches of the river are navigable towards the heights? It is navigable up to Wingham.
3685. Does any produce come by drogher from beyond Wingham either on the main river or its tributaries? No; there is no river traffic above Wingham. All the produce is brought down by team from beyond Wingham. The Lansdowne, which is a tributary of the Manning, and empties itself below Croki, is navigable by the river steamers for some distance, but not to any very great extent. There is splendid country running up there right to the ranges.
3686. Can you give the Committee any idea of the average width of the river or creek flats? No; they vary in different places.
3687. With regard to the construction of the line as far as Taree, do you agree with the evidence given by previous witnesses that an extension from West Maitland to Taree should be looked upon only as a section of a North Coast railway? Yes.
3688. Do you corroborate the evidence given by them that there will be no justification for constructing a line from West Maitland to Taree, and leaving the terminus here? I could not fancy such a thing.
3689. Do you think that if it came to Taree it would be far enough? No; I am sure that if it came to Taree it would be carried on further. As the last witness said, in coming to Taree you just get to the better part of the country. There are centres of population all the way between here and Maitland. I know that the A. A. Company's Estate is a bar, that estate not being at all thickly populated; but if a railway were carried through that estate I believe that the land would be leased or sold, and a thick population would be settled there. I have a knowledge of the country from here to the Clarence. There are centres of population in every direction you go that way. There are not only large centres immediately along the coast or immediately where the line would go, but also in every direction; and it is the same in this district. You cannot go to any part of this district without striking population everywhere.
3690. Small centres of population? Yes.
3691. With regard to the land along the North Coast, from Taree, it appears in the course of this inquiry that some of the traffic would be served by a line from Taree to West Maitland; but is it not a fact that the coastal land is fairly intersected by rivers, on which large sums of public money have been spent to make navigation practicable, and it is contemplated to spend still further large sums to improve the entrances to the various rivers? Yes.
3692. Do you think it would be justifiable to spend large sums of money on the improvement of the various rivers along the North Coast, and also to construct a railway which would enter into competition with the traffic by water;—do you think it would be a sensible policy? Yes; I do. I think the Government would be perfectly justified.
3693. In what way would they be justified? All these rivers require properly opening up for navigation; there is no doubt about that; and the steamers would provide for the produce of the lower river, or for the bulk of it, as has been stated in evidence here; but I believe that the bulk of the passenger traffic would go by rail; and the railway travelling for the most part above the navigable portions of the rivers—for it would only touch the rivers at certain places, and then go away from them—would serve a population who now have to cart their produce for a great many miles.
3694. Is there much population there? As I have said, you cannot ride in any direction without seeing farms everywhere. There is one great advantage about a railway on the North Coast. The railway traffic would always be constant—different from that in some districts, where there is only a busy season during the wool season, and a lull during the rest of the year. Here the traffic would be constant from one end of the year to the other.
3695. With a line of railway skirting the coast or running through the North Coast district, and just going to the head of navigation—for it would have to cross the rivers at some point or other—the settlers living between it and the New England Ranges would have to bring their produce by road to reach the railway, as they have to bring it by road now to reach the navigable water;—where would the benefit come in? That depends. In the case of the line crossing the river just above Wingham, the settlers, instead of having to bring their produce down to Wingham—perhaps 20 miles—as some now have to do, would have to bring it only 4 or 5 miles to strike the railway.
3696. The line running right through Wingham, you would have both the railway and the head of navigation at Wingham? But the line strikes the river a good deal higher up than Wingham. It crosses the river near Woodside. Now people have to bring produce perhaps 16 miles, but there they would have the railway at their door.
3697. Is there much difficulty in getting in and out of the Manning River at the present time? At the present time I believe that the bar is very fair, but the "narrows" are shallow.
3698. The entrance is not very good? No.
3699. Which do you think would be the most serviceable to the district—the railway or improved means of navigation; supposing that the river were neglected and the entrance were allowed to take care of itself, and the whole of the residents on the lower river were blocked from getting produce taken from
the

the river as they are accustomed to do, and supposing the railway were constructed, which do you think would be the most serviceable to the district? I hardly think that is a fair question. That would depend entirely on the way the residents were served. For one portion of the district the railway would be the better, but for the other portion the river would be.

T. B. Boyce.
2 June, 1898.

3700. So that practically you want both? Yes; and we hope to get both. I may state that in going beyond Taree there is a splendid piece of country that the railway would open up—Mr. Flett touched upon it in his evidence—the Comboyne reserve. It is on the table-land above Camden Haven. At the present time there are settlers from the Manning going there and inspecting it with the idea of taking it up.

3701. *Temporary Chairman.*] It has been sworn before this Committee that the people situated 20 miles from means of transport are too far off to enable them to grow maize successfully, and seeing that the Comboyne would be 20 miles from the railway, would not the people there be too far off to send their produce by the railway? I do not think it would be 20 miles off the railway; it would if the line stopped at Taree, but not if a North Coast line were constructed.

3702. The Comboyne reserve would not come within the sphere of the proposed line from Maitland to Taree? No.

3703. This district is a very fertile one, with an abundant rainfall? Yes.

3704. And you maintain that it is capable of sustaining a very much larger population than it does at present? Yes.

3705. But you cannot shut your eyes to the fact that the estimates of the traffic manager are based on the existing population, and after making a liberal allowance he anticipates an annual loss of £31,000, and he sees no possibility of that loss being reduced for a number of years; your contention, however, is that his figures are an under-estimate, and, in addition to that, you say that the construction of the proposed railway would induce much larger settlement and increase the cultivation;—is that the position you take up? Yes.

3706. Therefore on that ground, as a resident of this district and a representative man, you urge the construction of this line irrespective of the immediate loss upon it? Yes. I doubt if there would be anything like that loss, and I look upon the railway as a national undertaking.

3707. Even admitting that the figures are substantially correct, you think that the increase of population brought about by that railway would largely diminish that loss? Yes. I arrive at my conclusion generally in this way. There are large business establishments, not only in Taree, which is only one place out of many, but also all over the district, for I believe that in some of the other towns they are doing a business equal to what is being done in Taree. I believe that there are firms in this town who are turning over £10,000 and £12,000 a year. To estimate the whole of the revenue of the railway at £18,000 a year seems to me to be a very small matter.

3708. Mr. Harper, in his sworn evidence, states that he has visited the district, has made the most careful computations he could, has had the books of the steamship proprietors open to him, has ascertained the total tonnage for the district from the various shipowners, and has added considerably to it; and I do not think that anybody could have gone to more pains to obtain his figures and facts than the Traffic Manager has, and he has obtained his information from all possible sources from which it could have been obtained? Yes; but there are many things that would be sent by rail that are not sent by steamer, and he could not have estimated also for the increased passenger traffic.

FRIDAY, 3 JUNE, 1898.

[The Committee met at Cundletown, at 10.30 a.m.]

Present:—

FRANCIS AUGUSTUS WRIGHT, Esq. (TEMPORARY CHAIRMAN).

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

The Committee further considered the proposed railway from Maitland to Taree.

Robert Cox, Cundletown, sworn, and examined:—

3709. *Temporary Chairman.*] Can you give the Committee any information in regard to the proposal to construct a railway from Maitland to Taree? I have been residing in Cundletown, and within a mile of Cundletown, for forty-eight years. When I came to Cundletown there were only three white men living there.

R. Cox.
3 June, 1898.

3710. Have you been in business in past years, or have you been a farmer? I was a farmer.

3711. Will you kindly tell the Committee what you think of this proposal? I do not know whether the railway will or will not pay. I am not a judge of that matter, but I know the district is a good one.

3712. You know the district is fertile? Yes.

3713. And fairly populated? Yes.

3714. The estimated cost of the proposed railway is £982,000, exclusive of the resumption of land, and the Railway Traffic Manager, who has been in this district, has made the fullest inquiries, has seen the books of the shipping companies, and knows the whole of the freight that goes from the district, estimates that the annual loss on the railway will be £31,000, and he says in his report that he has made a liberal allowance for everything, and he sees no possibility of that large loss being reduced for a great number of years;—do you think, in view of those facts, that the country would be justified in spending nearly £1,000,000 in constructing a railway which would entail on the taxpayers a loss of upwards of £30,000 a year? At the first commencement I think that the railway might not pay, but in time the country would be opened up much more, and the railway might then pay interest on the capital outlay.

3715. The view you take is that although the railway might not pay at first, the further development of the district and increase of population would eventually make it a paying concern? Yes.

3716. Do you know the country between here and Maitland? I do.

3717. What class of country do you call it? Between this and Gloucester it seems to be pretty good country. There is a lot of the A. A. Company's land, which is very fertile.

3718.

R. Cox.
3 June, 1898.

3718. Which part of it? On the Barrington there is good land.
3719. Immediately around Gloucester, I believe, there is very good land? Yes.
3720. Do you know the country between Stroud and Gloucester? Yes; that is not quite such good country. It is a kind of sandy soil.
3721. There is one feature in connection with this railway of which you perhaps are not aware; the railway would run for 52 miles through the estate belonging to the A. A. Co., and any direct advantage that might be gained from the construction of a railway through that estate would not be to the taxpayers of New South Wales, but to that large private corporation who would gain a great advantage by the increased value of their land? Will they not pay accordingly towards the construction of the line?
3722. No, they will pay nothing, but they would derive great benefit from it; around Gloucester, Stroud, and Dungog, there is the general feeling that no railway should be constructed through that estate unless some arrangement were made by the Government to buy that land from the company, and take it over with the view of selling it at a profit;—do you think that is a reasonable suggestion? Yes; I do; for the A. A. Co.'s grant is keeping back Gloucester and other adjoining places.
3723. That grant effectually shuts up the whole country? Yes.
3724. Do you agree with the Stroud people that before the railway should be constructed, the Government should either resume or buy all the A. A. Co.'s land? I think that would be a wise thing to do.
3725. If the railway be constructed, what chance is there of increased settlement on the Manning River? There are a good many people living in the back country at the present time who are far away from shipping, and there are a good many more who would take up selections if the railway were to come this way.
3726. Where would they take them up? There are places out in the back parts that could be taken up within 20 miles of the railway. A good deal of the mountain land in this district is good land, and could be used as orchards and vineyards, but it is isolated now.
3727. But would the railway have any effect in promoting settlement on that land? I daresay it would.
3728. You are aware that there is a proposal before the Committee to spend £100,000 in improving the entrance to the Manning River by constructing works there to deepen the channel, and remove the bar? Yes.
3729. Do you think it is right that both these works should be carried out—a railway to cost nearly £1,000,000, and harbour works, the first cost of which will be £100,000, with a possible £120,000 on the top of that to complete the works? I think that if the bar were properly attended to, it would be better than the railway.
3730. The proposal of the Harbours and Rivers Department is to make from 12 feet to 15 feet of water on the bar, and dredge out the channel, and make a good waterway, and you think that if that were done it would be better for the people than the railway? I do, at present.
3731. The bulk of the best land is on the river banks? Yes.
3732. And, therefore, if a good harbour were made, and also a railway, I suppose that the bulk of the produce would still go by water? I daresay it would.
3733. You are aware that the cost of conveying goods to and from the Manning by rail would be very much more than the water-carriage—for ordinary storekeepers' goods the cost would be from 65s. to 70s. per ton;—do you think the railway could compete with the water-carriage? No.
3734. Do you think that if the railway were constructed, and the navigation of the river were improved, the steamship companies would not very likely reduce their freight in opposition to the railway? I think they would.
3735. If the question were fairly put to the people of this district: "Will you have a railway that will cost you more to send your goods by, or will you have an improved bar and an improved river—select which you would like";—which do you think the people would go for? I think they would go for the improved river.
3736. I suppose that the land on the upper portions of the river would be in much closer proximity to the railway than they are to navigation? Yes.
3737. Therefore, the people there might utilise the railway to a certain extent? Yes; especially for passenger traffic.
3738. Passenger traffic and light parcels would no doubt go by train? Yes, and live stock.
3739. But the bulk of the goods—heavy goods—would, I suppose, under all the circumstances, continue to go by water? Yes; I think so.

James Levick, retired builder, Dumaresq Island, sworn, and examined:—

J. Levick.
3 June, 1898.

3740. *Mr. Fegan.*] How long have you been in the district? Forty-one years.
3741. So that you have seen the rise and progress of the district? Yes.
3742. Have you ever farmed? Yes; a little.
3743. Would you mind describing the character of the country 5 or 6 miles on either side of Cundletown? I do not know much about the country farther than, perhaps, 20 miles beyond Tinonee, and I think that any of the land which is any good has all been alienated and taken up.
3744. So the railway, if it were constructed, would not lead to a much greater settlement there than there is at the present time? Not much greater.
3745. You heard the Chairman refer to the estimated loss on the proposed railway, viz., about £31,000, and you, having an intimate knowledge of the facilities to get produce to market, which would you prefer, a railway or an improved river? An improved river, I think.
3746. For what reasons? Because the produce of this district is grown principally on the river banks.
3747. Mr. Harper, who is now Chief Traffic Manager, and who was formerly Goods Superintendent, in his report on this proposed railway, says:—"Again, on the Manning, which carries the largest population, and is the most productive of any of the districts through which the line passes, the ocean-going steamers and vessels call at all the principal towns to which, even if a railway were constructed, the great bulk of the trade of the outlying settlements must converge. The present rate of carriage (again, without competition) is 12s. 6d. per ton to Sydney; our lowest freight (for their staple, maize) over this mileage would be to Newcastle 9s. 8d. per ton, and to Sydney 13s. 4d. per ton, average freight at 3d. per ton per mile would be to Newcastle, 31s. 3d. per ton, and to Sydney 58s."; considering that, do you think it would be impossible for the railway to compete with the water-carriage? I do.

3748.

3748. Has the district been going ahead lately? I cannot say it has gone ahead very much lately, but it appears now to be moving ahead a little, since the dairying business has come into operation. People seem to be getting more produce, and going in for dairying all through the district; and there is no doubt that, through this dairying, many blocks of land will be taken up which otherwise would lie waste. J. Levick.
3 June, 1898.
3749. Is there any reason why the district has not gone more ahead;—is its land inferior? The principal part of the land which is in any way handy to the shipping place, or within some miles of it, in fact, seems to me to be taken up.
3750. It is good land? Yes.
3751. Having such good land and such an outlet, with cheap carriage, as the Manning River gives you, what is the reason that the district has not gone ahead more? I do not know any particular reason.
3752. It is not from lack of energy, is it? No.
3753. If there are good roads, good water-carriage, and good land, and even a good market for your produce, you would think that the district ought to have gone ahead a little more? I would think so.
3754. However, you say you do not know any reason? I do not.
3755. What was the principal product about here before dairying was commenced? Maize. Many are going in for wheat-growing now. Last season there were good plots of wheat put in.
3756. Have you ever tried wheat? Some years ago.
3757. Is it a fact that wheat-growing was given up on account of rust appearing so much? Yes.
3758. What is the extent of the dairying industry here now? I have not any idea.
3759. *Temporary Chairman.*] The river flats are all alienated? Yes.
3760. All the good land? Yes.
3761. What size are the holdings on the river-frontages? From 40 to 100 acres.
3762. Are they farmed to their fullest extent? I think so—that is any that I know.
3763. Therefore, there is no room for increased population on the river banks? I do not think so.
3764. The good land has been taken up, and is being farmed pretty well to its maximum extent? Yes.
3765. That being the case, the Committee have no right to assume that if further facilities were given to the people, population would increase on the river itself? I think not.
3766. The only increase likely to occur would be on the land up on the mountains? Yes.
3767. *Mr. Black.*] What is the width of the strip of good country on the bank of the river? Some goes from 20 to 40 chains from the river bank, but others perhaps will not go 1 chain.
3768. There is no very great width of good soil? No.
3769. You strike the poor soil, say, a mile or so back? The Taree Estate, I think, is about as good as any, taking it altogether. The Cundle Estate, if it were cut up into small holdings and sold to people, would make very good farms—plenty of it. It is just shut up.
3770. Still there is no great area of good country? No, there is not.

Henry John Cornish, dispenser of medicine, Cundletown, sworn, and examined:—

3771. *Mr. Black.*] How long have you been a resident in the district? Forty-two years. H. J. Cornish.
3 June, 1898.
3772. Have you heard anything about the proposed railway scheme? I have heard about it.
3773. Do you know that the proposed railway would cost nearly £1,000,000? I am aware that it would cost a great deal.
3774. About £9,000 per mile, independently of land resumption, which would cost a very heavy additional sum;—are you aware that that would involve an annual loss including interest on the cost of construction and expenses of maintenance, of about £31,000 per annum? It would cost a great deal, but I cannot say what it would amount to.
3775. Under such circumstances, do you think it would be a justifiable expenditure on the part of the country in constructing the railway? I do not think it would be.
3776. Do you think that, if it were constructed, the railway would be able to supersede the sea-borne traffic? It would not be able to compete with it.
3777. I suppose you are aware that they could carry goods to Sydney by steamer from here for about one-third or one-fourth of the cost by the railway? Yes.
3778. Under such circumstances, would not the people generally use the steamer as they do now? Yes, because it would cost them less money.
3779. Well then, the railway would be used only in remote cases—perhaps for a little passenger traffic? Passenger traffic, and a little live stock, but not for the general run of cargo.
3780. Then you may say that the railway would fail in its object? I consider it would; there is not sufficient population.
3781. Do you consider that the character of the country, is such, that if the railway were constructed there would be any great accession to the settlement of the district? I cannot say there would.
3782. Along the Manning River there is not a very wide area of good agricultural land? There is a good deal of agricultural land.
3783. But there is not a very wide area—it does not extend very far back from the river? There is very good land 8 miles to Lansdowne. The estate on which Cundletown is has been very much locked up.
3784. Lansdowne is directly north of Cundletown? Yes.
3785. And you say that from Cundletown to the estate known as the Lansdowne Estate, there are 8 miles of good agricultural land? Yes; it is second-class land, but it is very good; it is far better than any that can be selected.
3786. That land is all alienated? It is in the hands of absentees.
3787. That land is all alienated until you come to the Lansdowne, which is a reserve? It goes right out on both sides.
3788. Nearly all the land is alienated—that is to say, it is either leased or freehold? It is freehold.
3789. It is not open to selection? No.
3790. I see that Lansdowne is marked "T.R.," which means timber reserve. How far to the west is there good land; would you say it is all good land between here and Taree, for instance? I could only call it second-class land.
3791. How far beyond Taree is it good? The Taree Estate is all good land; it extends up to Woola, and there is good land there.
3792. How far back from the river is the land good? About 1 mile. 3793.

- H. J. Cornish. 3793. In what direction is there likely to be any development in the district;—what is likely to be the staple industry here in the future—dairying? Yes; dairying.
 3 June, 1898. 3794. And provided that the entrance to your river were so improved that vessels drawing about 12 feet or 14 feet could come up the river to Taree, do you think that that service would be sufficient for the wants of the district? I consider it would be.
 3795. *Mr. Fegan.*] Being a dispenser of medicine, you get your medicine, I presume, from Sydney? Yes.
 3796. I suppose you get it chiefly in case or bottle? I get it in all sorts of ways. I believe extensively in the herbal medicines; but I get both kinds.
 3797. Do you carry on business as a chemist? I am not strictly a chemist, for I hold only a certificate as a dispenser of medicine; but I am not altogether dependent on that.
 3798. What rate do you pay for the carriage of your goods? I get so very little that the carriage is a very small item, and cannot be taken into consideration.

James Collins, farmer, Dumaresq Island, sworn, and examined:—

- J. Collins. 3799. *Mr. Hassall.*] How long have you been on Dumaresq Island? About thirty-five years.
 3800. Does the land keep up its fertility naturally, or do you have to feed it? We have to feed it.
 3 June, 1898. A quantity of it is worn out.
 3801. But it is pretty good land, is it not? Yes, naturally.
 3802. You have heard the evidence given by those gentlemen who have been previously examined? Yes.
 3803. Can you corroborate the evidence given by them? Mainly.
 3804. What is about the size of the farms held in the district—the good agricultural land? From 25 to 60 acres.
 3805. Is 60 acres looked upon as a decent holding? Yes.
 3806. Will it support a man and his family fairly well? Yes.
 3807. With regard to the good agricultural land, is it not principally along the courses of the rivers, and the various creeks? Yes.
 3808. If you go back from the rivers, what are you in? I would not go at all.
 3809. You are a practical farmer of over thirty-five years standing, and you tell me that if you could not get land along the banks of the rivers or creeks you would not try to farm here at all? I would not. I do not know anywhere I would try it.
 3810. We have heard it said that there is splendid land lying back some distance from the river, and that the proposed railway would make everybody's fortune;—do you know any good land of any description there? I do not.
 3811. Have you looked for any? Yes; I have looked about a mile back.
 3812. When you found your own land was getting exhausted you looked around to see if there were other good lands, so as to give yours a spell? Yes; I should like to have bought some, but I do not know any good land in the district not taken up.
 3813. Do you know any good land towards the Lansdowne, back from the creeks? I do not know any that is not taken up.
 3814. So the fact of the matter is, that the whole of the good land along the water-courses which is accessible has been taken up—is now held by private individuals—and the land that is marked as Crown lands—those places coloured yellow on the map—is not worth taking up for farming purposes? As far as I know it is not.
 3815. I suppose you send your produce away by boat? Yes.
 3816. And the generality of the farmers around here do the same? Yes.
 3817. And they find that they are fairly well served under existing conditions? Yes.
 3818. Do you think that the proposed railway, if it came to Taree, and stopped there, would be of any benefit to them? I do not think it would be any benefit at all to them as regards the carriage of general produce—maize, and that sort of thing.
 3819. Maize is not a thing that will bear any great cost of carriage? No.
 3820. You could not afford to pay four times as much by rail as by boat? No.
 3821. Taking into consideration the fact that the construction of the proposed railway would mean a loss of £31,000 a year, and that any man who held a little land might be called upon to pay additional taxation to make up the loss, it would not be an unmixed benefit? It would not, indeed, and I would not like to be one who helped to pay for it.
 3822. There is a proposal to improve the entrance to the river? Yes.
 3823. If that were done, and this river were made accessible by the steamers at any time, that, I presume, would be of great benefit to all the farmers settled along the river? It would indeed be of very great benefit to them.
 3824. Do you suffer any inconvenience or delay at times through the boat being bar-bound? Yes, we do.
 3825. The farmers find it difficult to get their produce away to market? Yes.
 3826. So that the improvement of the entrance to the river would benefit you individually and every other farmer in a similar degree, perhaps? Everyone about here.
 3827. So, as a practical man, you would give the preference to the scheme for the improvement of the river instead of wasting money in building a railway at such an enormous cost? I would.
 3828. *Temporary Chairman.*] Supposing that the people of the district had an alternative put before them—either a railway or an improved river—a river with a bar sufficiently deep to admit vessels at all times of the size of the “Electra,” which would they go for? The river improvement, most decidedly.

William George Everingham Smith, farmer, Dumaresq Island, sworn, and examined:—

- W. G. E. Smith. 3829. *Temporary Chairman.*] You have heard the evidence given by Mr. Collins? Yes.
 3830. Do you support that evidence? Yes; fairly well.
 3 June, 1898. 3831. You think that Mr. Collins was correct in the views which he enunciated about the river and the railway? Yes; I do.
 3832. And also in saying that all the good land in the district is already alienated? Yes.
 3833. You have no knowledge yourself of any good Crown land that could now be taken up? No really good land like that on the river bank.
 3834.

3834. If I wanted to select in the Manning River district you could not put me on to 100 or 200 acres of good agricultural land? I could not.
3835. Could you put me on to a good farm that I could buy? There are a few advertised.
3836. What is the value of the agricultural land on the river banks? It varies from £15 to £20 an acre.
3837. That is good land? Yes.
3838. So we may come to the conclusion that a man holding 40 acres or 50 acres can make a very good living off it? I believe he can.
3839. Is there any room for increased population;—could each of the present farms be divided into two farms, and produce more than it produces at the present time? I think there is an opening for more population on the agricultural lands of the Manning.
3840. You mean that better facilities and cheaper transport of the produce would very likely tend to increase the population somewhat? Yes.
3841. But not largely? No; I could not say largely, but I think it would increase the population.
3842. Do you think that the taxpayers of the country would be justified in spending £1,000,000 to construct a railway to Taree, which would entail on the country a loss of £31,000 every year? I do not, at the present time.
3843. *Mr. Fegan.*] Is it not a general rule that when a railway is constructed it does open up the country and increase the population? In time it does, I admit.
3844. *Temporary Chairman.*] The Traffic Manager in making his estimate of the loss of £31,000, says in his evidence before the Committee that he has made a very liberal allowance for freight and all charges, and he can see no possibility of that loss being reduced for a very long time to come, and in view of that fact you do not think the Government would be justified in constructing the proposed railway? Not at present. I believe that in time it would pay, but I do not know whether it would pay in my time or my children's time.
3845. As further development takes place and population increases, you think that it is a work that might be carried out? Yes, in time to come, but not at present.
3846. *Mr. Fegan.*] Of course your position here is entirely different from that of people in some portions of the Colony where the people have no water-carriage, but have to depend perhaps on the worst kind of roads, whereas you have cheap transit by water, which is the cheapest kind of transit you could have, and, therefore, there is not the same necessity for a railway in this district as there is in other places where the people are without water-carriage? If we had proper water-carriage.
3847. Do you send your produce by the river boat? Yes.
3848. What are the longest delays that have occurred within your own knowledge? I have had maize in the barn ready to go for three weeks and could not get it away.
3849. Why? I do not know whether the bar was bound or the narrows were shoaled up.
3850. But there was something wrong? Yes.
3851. Was it on account of the boat having too much trade? No; she has been bar-bound.
3852. Therefore it was on account of the bad entrance, rough weather, and so forth, that you were delayed three weeks? Yes.
3853. Such delay must have a great effect on the price you would obtain in the market? Yes.
3854. If you could get your produce into the market when prices were high it would be very much better for you? Yes.
3855. Therefore what you want, if not a railway, are better facilities as regards water-carriage? Ye.
3856. So that such a loss of time as three weeks would not be possible? Yes.
3857. Do you think that improved facilities for water-carriage would meet all the requirements of the people of the district? I think they would be very well satisfied if they could get that.

Moritz Ahronson, storekeeper, Cundletown, sworn, and examined:—

3858. *Mr. Fegan.*] How long have you been in business in Cundletown? Seven years personally, but *M. Ahronson*, my father was here many years before.
3859. So that the business of your family here has extended over a number of years? Yes.
3860. Where is your market for buying? Sydney and Newcastle.
3861. Do you buy produce from farmers and send it down to Sydney? Sometimes, in a small way, I do.
3862. In your business do the steamboats recognise different classes of goods the same as the railway—that is to say, 1st, 2nd, and 3rd class? They have different classes—some goods by weight and some by measurement.
3863. What do you pay per ton? Twelve shillings and sixpence.
3864. Do you get all your goods carried for 12s. 6d. a ton? The heavy stuff we get carried at 12s. 6d., and the other by measurement.
3865. Would $\frac{1}{2}$ a ton by measurement be 6s. 3d.? No, 6s. 6d.
3866. There is really no difference between measurement and ordinary tonnage, which is 12s. 6d. a ton? Yes.
3867. You would not get goods carried for that on the railway from Sydney to here? I am not aware what the charge would be.
3868. If you could get your goods more cheaply by steamer than by railway you would not use the railway? I would certainly get them by the cheaper way.
3869. Considering your nearness to water-carriage, and the facilities which are afforded, and are also to be given by the harbour improvements, do you think there is any necessity to construct a railway to Taree? Not so far as Cundletown is concerned; but there is other country which would be opened up.
3870. Do you know that country well? No.
3871. How then do you know that other country would be opened up? Only from hearsay.
3872. Your evidence is to the effect that whilst you can get goods from Sydney at the rate of 12s. 6d. per ton you would not pay any more even if you had railway facilities? Not under ordinary circumstances.
3873. If the proposed railway were constructed, do you think that the steamers would reduce their rates in order to get the trade? Certainly.
3874. Therefore, if the railway were constructed 113 $\frac{1}{2}$ miles, there does not seem to be a great deal of prospect of its paying? I have not gone into that question.

- M. Ahronson. 3875. According to the Good's Superintendent's report the charge on the railway would be more than double 12s. 6d. a ton; it is not likely you would pay that? Certainly not.
- 3 June, 1898. 3876. What within your knowledge has been the longest delay that has taken place in the transit of goods by steamer? The longest delay, I think, has been about a week so far as my goods are concerned.
3877. Of course, as regards perishable goods, such a delay would have a detrimental effect? Yes; even if goods were landed by rail at Taree I would have to bring them to Cundletown, and that would increase the cost.

MONDAY, 6 JUNE, 1898.

[The Committee met at Tinonee at 11 a.m.]

Present:—

FRANCIS AUGUSTUS WRIGHT, Esq. (TEMPORARY CHAIRMAN).
 The Hon. DANIEL O'CONNOR. | JOHN LIONEL FEGAN, Esq.
 THOMAS THOMSON EWING, Esq. | THOMAS HENRY HASSALL, Esq.
 GEORGE BLACK, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Hector Gollan, Tinonee, sworn, and examined:—

- H. Gollan. 3878. *Temporary Chairman.*] What are you by occupation? I am a retired shipbuilder.
- 6 June, 1898. 3879. How long have you been residing on the Manning River? Forty-six years, next August.
3880. I presume you know the district thoroughly? Yes.
3881. You know the scheme before the Committee to construct a railway from Maitland to Taree? Yes; I have read a good deal on the matter.
3882. Will you make a statement as to the necessity for the railway and the benefits likely to accrue from it? I think it would be of great benefit, as part of the scheme of a North Coast railway, in a great many ways.
3883. We are dealing with it simply as it stands—from Maitland to Taree? Yes, of course; but I am speaking generally, as far as the railway is concerned. There is a matter that would warrant the Committee's looking into it. So far as my knowledge of the measured line at present is concerned, I understand it is proposed to cross at a place called the Washpool. If the line were deviated and came down on this side of the river, I think it would serve a large percentage of the population of the district, as far as Kimbriki, and a great tract of country at the head of the Wallumba, and right across to the fertile land at Wallan and Gooloongoolook, and that part of the district, whereas if the railway went in the way the line is measured at present it would not serve that district, for it would be cut off from it.
3884. Where would you propose to deviate from the existing survey—at Bulladelah? No; to come down the same surveyed line, but instead of crossing at the Washpool, to cross lower down and come down on this side of the river, and then the railway would serve Kimbriki and Krambach, and that large district. The present measured line crosses about Woodside.
3885. You think it ought to come down on the same side of the river? Yes; and then cross over to the Wingham side.
3886. At Wingham? No; still above Wingham. It would serve a better tract of the country if it were to come down a little lower than is proposed.
3887. Are you aware that a number of surveys have been made, and also a very careful inspection of the country, and that the surveyors say they have selected the most practicable route that could be got? From my experience of the country I do not doubt that a little variation of the proposed route would make it take in an enormous amount of good country.
3888. Do you know that the estimated cost of the railway is about £1,000,000, without anything for resumption of land? Yes.
3889. Mr. Harper has gone over the country and obtained all the information he could as to the products. He has had access to the books of the steamship companies, and after making a most liberal allowance for a largely increased traffic from the district, he estimates that the annual loss on the railway would be £31,000? I do not doubt that there would be a loss on this line so far as Taree and this district is concerned, but the railway should be regarded as a national line.
3890. But, unfortunately, this inquiry is limited to a railway from Maitland to Taree. However, from your remarks I gather that you think that if the line be looked upon as part of the North Coast railway, to connect with Queensland, it would be justifiable? Yes; I think that, because I know it must be profitable, owing to the area of country it would go through, which is the heart of New South Wales.
3891. Do you know the country between here and Dungog? I know a good deal of it, but the country between here and Dungog is not much. There is a good deal of barren country.
3892. Do you know that the railway would pass for 52 miles through the estate of the A. A. Company? Yes.
3893. Many people along the route have thought that the railway should not be constructed until some arrangement had been made between the Government and the A. A. Company for the Government to acquire their land? Most decidedly I would advocate that.
3894. You believe, with others, that the occupation of that great block of country by the A. A. Company is detrimental to settlement, and is shutting up the country? Most decidedly.
3895. What effect do you think the construction of the railway would have on the trade of the Manning River itself? I do not think it would have a great effect, except as regards the passenger traffic and live-stock and perishable goods. I think it would enhance the value of perishable goods a great deal, because more would be done with them than under the present system.
3896. There would be no chance of the railway capturing the heavy traffic? Yes; the heavy traffic most decidedly above the navigation.
3897. You think that some of that traffic would be secured by the railway? Most decidedly it would, because no person would cart stuff 12, 14, or 20 miles to water-carriage if he had the railway close at hand.

H. Gollan.
6 June, 1898.

3898. You are aware that railway-carriage would be much higher than water-carriage? Yes.
3899. For ordinary store-goods the rate would be from 30s. to 75s. a ton from Sydney to here? To many parts now it is over that.
3900. But people would still have to cart if the railway were constructed, would they not;—the railway would not go right to their doors? It would not go right to their doors; but now the back freight is over £2 a ton.
3901. What do you pay for sugar, salt, and things of that kind from Sydney to Wingham? They call it 12s. 6d.; but on most other things we have to pay up for that.
3902. Why do you say they "call" it 12s. 6d.;—do they charge more? I do not care about interfering with other people's business.
3903. You are aware that it is proposed to spend £100,000 in improving the entrance to the Manning River? Yes.
3904. Do you look upon that as unnecessary work? I do.
3905. If the construction of the proposed harbour works would secure for all time a depth of from 12 feet to 15 feet of water on the bar, and if the shallows inside are scoured, do you think that the Manning district would be fairly well served? I think it would be served in that way. There is no doubt about that.
3906. The only outlet for its trade is by sea, is it not? Yes; for ordinary trade the outlet is by sea.
3907. If the people of the Manning were offered the alternative of a railway from Maitland to Taree, and nothing to be spent on the harbour, or the proposed expenditure on the harbour to make it a good port, which do you think they would go for? I think they would be divided.
3908. That is, the people on the river from this place down would go for the harbour, and the people on the upper portion of the river would go for the railway? Yes; that is how it would stand.
3909. Are there any farms in the upper portion of the district, far back from the river? Yes.
3910. Much good land? Yes.
3911. Is there much scope for settlement here? There is more scope along the proposed line—that is, including the A.A. Co.'s estate.
3912. But that is not available;—there is 52 miles of country there shut up? There is land at the head of the river which is not being utilised at present.
3913. What class of land? First class.
3914. You see the portions coloured brown on that map north and north-west of the river; that is all Crown land, and that land is said to be actually valueless; all the good land along the creeks marked blue has been taken up;—would you be astonished if I were to tell you that you can get portions of that land—20,000 acres, at £12 a year, with a lease of twenty-one years, and yet it is not taken up; that land can be leased under an Act known as Waste Lands Act, and hardly any of it is occupied now, or rent being paid for it? But the heart has been taken out of that.
3915. There is practically no room for settlement, because the land is so worthless that people will not take it up, and if they did take it up, they would be a considerable distance from the railway; then, again, the brown patch on the east towards the coast is also very poor land; do you think that the population on the river would largely increase if additional facilities were given to the people;—would there be more cultivation on the banks of the river, say, between the head of navigation and the sea? I think there would be more orchards and the like of that. Land that is not fit for cultivation would make splendid orchards.
3916. But what would the people do with their products? I mean, if the railway were in existence there would be a great deal of fruit grown in this district. A great deal of the land here is well adapted for fruit-trees.
3917. But fruit-growing does not pay railways very much? No.
3918. Unless the railway could capture a large portion of the traffic that now goes by sea, is there, in your opinion, the slightest likelihood of its paying? I do not think the railway would pay.
3919. Are you inclined to take the figures placed before the Committee by the Traffic Manager, who has gone to an immense amount of trouble to get his data, and says that he has made a liberal allowance for everything, yet estimates an annual loss of £31,000 on the line? I think he has the best opportunity to arrive at correct figures.
3920. You are not disposed to dispute his figures? Not at all.
3921. Can you give the Committee any idea of what the passenger traffic would be likely to be? The passenger traffic would be increased to a great extent; there is no question about that. If I could go to Sydney by the railway I would go ten times to the one time I go now.
3922. Although the passenger traffic is at present limited, you think that with railway communication it would be very largely increased? Most decidedly.
3923. People would travel much more frequently than they do now? They would.
3924. I suppose there are a number of people in the district who never go to Sydney? Yes; and only sheer necessity takes any people to Sydney by sea, especially those who are liable to sea-sickness.
3925. You think that railway communication would result in more frequent trips to Sydney by people living in this district? I think so.
3926. What effect would a railway have on the business of the district? It would increase the business, because there would be more travelling and business done with the metropolis than is done at present.
3927. You know the experience of some other places is that the opening of a railway to them sometimes decreases the local business, because people go to Sydney, and buy their parcels of goods there? If it would not be beneficial in one way it would be beneficial in the other.
3928. You mean that while it might injure the storekeeper it would benefit the people? I do not think it would injure the storekeeper a great deal.
3929. Your evidence summed up amounts to this: You do not think the country would be justified in constructing a railway to Taree if Taree were to be its ultimate destination, but if on the other hand the railway is to run along the North Coast to connect Brisbane with Sydney you think that this portion of the line is perfectly justifiable? Yes, that sums up all my evidence.
3930. *Mr. Hassall.*] Do you think that the country would be justified in carrying out both works—the harbour works and the railway;—is there sufficient trade or traffic in this district to justify the construction of both those works? Well, as far as the two works combined together go, I would not say anything on the matter. But the harbour works must be done.
3931. You think they are a necessity? Yes.

William Smith, saw-mill proprietor, Tinonee, sworn, and examined:—

- W. Smith.
6 June, 1898.
3932. *Mr. Fegan.*] Have you any knowledge of the proposed railway that is now before the Committee? No; I am not interested in the subject much at all.
3933. Do you think that it is expedient to construct a railway to Taree, considering that you have such a fine river as the Manning? Commercially, I think it would be a loss, but I think it is right that it should be constructed.
3934. Do you think there is a probability in the near future of getting anything near as much as would cover the annual loss, estimated at £31,000? What do you mean by the "near" future.
3935. Well, say within five or ten years? Put it at twenty, and you might.
3936. Your opinion is that the improvement of the bar is far more important than the railway at present? Most decidedly.
3937. And, as far as the people of Tinonee are concerned, they would be more satisfied with greater facilities on the river than they have at present, rather than have the railway? I am fully of that opinion. I think that the harbour improvements are a work of necessity, and should be carried out.
3938. You agree to a great extent with the evidence of the previous witness? Yes. With the proposed railway I have very little sympathy; but, at the same time, I am of opinion it should be constructed. But the harbour improvements I am very much in earnest about, and I think they should be carried out. As a business man, I know we at present suffer from a terrible block. We, for instance, have been almost begged to send cargoes of timber around to Western Australia, and we could not do it because of the transhipment that would have to be done in Sydney, which would make it too costly, we having to send the timber in little ketches to Sydney and tranship it there. We have had three letters begging us to send cargoes of timber to Western Australia, and we could not.
3939. You heard the previous witness say there was a greater charge than 12s. 6d. a ton? Yes.
3940. Can you tell the Committee the details that bring the charge up to more than 12s. 6d. a ton? I do not know what the real cost is. It seems to me to vary very considerably. Personally, I have been charged as high as £6 for 28 cwt.
3941. What was that for? A machine that we use in the mill.
3942. That was by measurement, I suppose? They said measurement, but their schedule says, "Machinery, 30s. per ton," and we were charged £6 for 1 ton 8 cwt.; and then they work on the parcels rate a good deal, and that makes it very heavy. But I do not see how the railway could compete with the steamer except as regards passengers. I do not go to Sydney now once in three years, but I would be very glad to go often by railway.
3943. The railway would be quicker, surer, and more convenient? Yes. It is a week's job now if you wish to go to Sydney overland.
3944. You think that sufficient facilities for trade would be given if the harbour works were carried out as proposed? Yes, I am fully of that opinion.
3945. *Temporary Chairman.*] In speaking about the freight by steamer just now, I suppose you meant that they charge practically what they like? Yes.
3946. You are in their hands? Yes.
3947. Are there good timber forests in this part of the country? They are pretty well cleared out I think—that is to say, there is not sufficient timber about here to carry on any export trade; in fact, there is not in the whole Colony for the matter of that, but I am dealing now with this part.
3948. Where are your mills situated? In Tinonee.
3949. Are there any large timber reserves at the back of Cooperook? Well, they call them large, but they are not.
3950. They are not large? I do not call them large. If a good mill were to be established there it would cut them out in a year or two.
3951. Therefore the prospect for the timber trade is a comparatively short life? I think so.
3952. But apart from the timber trade, you recognise the importance of a district like the Manning having good facilities for outside commerce, either by water or by rail? Yes.
3953. And you think that the expenditure of £100,000 at the Heads would be perfectly justifiable? I am fully of that opinion.
3954. We are told by the professional staff that with that expenditure they can obtain a constant depth on the bar of not less than 12 feet of water;—would that, in your opinion, admit vessels of sufficient carrying capacity to meet the wants of the district? Yes.
3955. There is a possible contingency after that £100,000 has been spent an additional £120,000 might have to be spent to carry out the breakwater still farther? I think those works are perfectly justifiable.

MONDAY, 6 JUNE, 1898.

[The Committee met at the Court-house, Wingham, at 2:30 p.m.]

Present:—

FRANCIS AUGUSTUS WRIGHT, Esq. (TEMPORARY CHAIRMAN).

The Hon. DANIEL O'CONNOR.

THOMAS THOMSON EWING, Esq.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Harry Josling Hammond, storekeeper, Wingham, sworn, and examined:—

- H. J. Hammond.
6 June, 1898.
3956. *Mr. Black.*] Are you familiar with the route of the proposed railway? I have been over the whole of it, with the exception of the part from the Washpool to Gloucester; that is where it goes down the Barrington.
3957. You know what direction it takes in regard to Wingham? Yes.
3958. Does the route recommend itself to you? Yes; I do not think there is any better route; it comes through a lot of very good country.

3959.

H. J.
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3959. Will it be of any service to the people of this town and district? Yes; I think it will be of great service to this town and district, if there be railway communication with the metropolis, for several reasons. At the present time there is a large quantity of perishable articles, and a large number of live stock sent to Sydney, on which we lose heavily, both in the way of freight, and the price they fetch in Sydney. If the produce got to the market fresh, it would fetch far more than it does now. We now lose sometimes as much as 50 per cent. on the value.

3960. You say you lose on the freight? Yes.

3961. You refer to pigs and fowls, I believe? Yes.

3962. What do steamers charge you per head for pigs? From 1s. 6d. to 3s. 6d., I think, and for every day they are on the steamer, we pay 2d. per head for food, and that runs into a big item when the steamer is detained eight or nine days, and a pig loses considerably in value. The same with poultry. The freight by train would be 2d. per pair more than by steamer, but at the same time we have to pay for the feeding, and they sell at about half-price, and the same with eggs. People with railway communication receive 1s. 10d. or 1s. 11d. I have plenty in hand each summer, and mine have been sold for 11½d. and 12½d. There is always, at any rate, a difference of 1½d. in the price realised for steamer-carried eggs and railway-carried eggs.

3963. Then your argument is that you lose on shipments of perishable goods, because of delays in consequence of the intervals between trips, and the length of time occupied in making the journey? Yes; and the heavy expenses of feeding.

3964. If the journey were not long, the expense of feeding would not be great: that is, therefore, included in the other item; if something were done which could insure you against the loss that is occasioned through vessels being unable to put to sea, and also to insure you a more regular service—say every other day—and a quicker passage, a great deal of the necessity, or what you consider the necessity for a railway would disappear, would it not? It would, to a certain degree.

3965. Have you a steamer trading to this town? Yes; on and off.

3966. Does the "Coraki" come up to this town? At times, but she does not come regularly. She is not coming now for three trips ahead.

3967. How often does she come? Just when it suits her.

3968. Then there is enough traffic to pay a steamer coming about once a fortnight; do you think there would be enough to pay the railway, which would be running every day? An immense quantity of stuff would, I believe, go by railway. I know nothing about the expense of running the railway, nor the expense of running the steamer, and therefore I do not know if the railway would pay.

3969. I suppose that for £20,000 of capital you could lay down a steamer, or possibly a couple or three steamers, to trade between this port and Sydney, but it is estimated that the construction of this railway would cost £1,000,000, and the difference between £1,000,000 and £20,000 or £30,000 is very considerable; are you aware that the annual loss on this railway at the lowest estimate would be £31,000? I have read so; that is all I know about it. At the same time there is a lot of stuff which the steamer does not take. For instance, 8,000 or 9,000 head of cattle went down during the last twelve months. None of those went by the steamer, but they were driven to Maitland.

3970. I suppose that a train a fortnight would take 8,000 cattle to Sydney per annum, and that would not pay the railway; have you heard anything about the proposed improvements to the bar? I have read of them—that is the only thing.

3971. Do you know it is proposed, at a cost of £100,000, to make the entrance easy in all weathers unless in the case of a gale—to remove the bar and what is known as the crossing, and to create a channel which, with a little dredging, and by means of the increased scour, will keep the river permanently open as far as Wingham? I have read of it.

3972. Do you know that that will result in a permanent depth of from 12 to 14 feet of water in the river except under exceptional circumstances? I have read that it will do so, but I cannot say whether it will or will not.

3973. If you had that depth of water, and vessels of increased tonnage and greater speed and power were enabled thereby to trade on the Manning, would not that reconcile you to many of the disadvantages with which your trade appears now to be surrounded? I have no doubt it would facilitate the getting away of produce of all kinds, and might cause opposition which would result in the reduction of freights. I think it would be bound to reduce freights, because a heavy item now with the steamship company is insurance, because of the dangerous entrance, and there would be a very large reduction in that way.

3974. Have you lived long in this locality? Seventeen years in Wingham, and all my life on the Manning, excepting a few years.

3975. Has there been much growth of the district during the last few years? Yes; it has been continually growing.

3976. Is there any room for much greater development? There is a big development taking place at the present time; they are opening up what you may almost term useless lands, which are now being used in connection with the dairying business; and that is a business which requires quick transit with Sydney. If there were a way of getting pigs and calves to market properly the export of pigs and calves would be largely increased, and there is no telling what the butter trade might reach in the course of nine or ten years. It has made rapid strides during the last two years.

3977. Do you think that the Government would be justified in spending £1,000,000 in the construction of a railway from Maitland to Taree, considering that it would involve an annual loss of about £31,000? That is a big sum, of course, to lose; but at the same time I think that a lot of it would be recouped by the opening up of fresh country. I do not look upon the country as merely from Maitland to Taree, but as a section of a line that will go farther on.

3978. We are not considering that now? Still, we always have done.

3979. You speak about opening up fresh country;—how is that country held at present? A lot of it consists of free-selections and freeholds, and the other parts would be taken up. Nothing was done in the dairying industry on the Manning River until the last couple of years.

3980. How is the free-selected land being used? There is grazing on most of it, and some is being cultivated. We do not grow maize and that sort of thing more than 15 miles from here now, where the railway would cross; and if the railway were to cross there there would be a platform, and it would pay to grow maize 15 or 20 miles farther on, where there is nothing but grazing at the present time. The railway

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railway would cross at the Washpool, and that is as far up as it pays to grow maize; but if there were a siding there, to take away the maize and other products, people would grow maize 15 miles further up the river. They grow nothing up there now except tobacco, or what brings a big price for a small weight; and they principally raise cattle, which they can drive to Maitland.

3981. You think that the ultimate tendency of this district will be towards dairying? A big portion of it, I think.

3982. Is there much timber cut in this district now? Yes; there is a large quantity of timber being cut. There are so many orders in hand now that they cannot get enough teams to draw it in.

3983. How long do you think it will be before the district timber will be cut out? It is like everything else—it is a matter of price. The price is a paying price now, although it has not been for a little time back; and the whole timber industry of the Colony seems to have taken a rapid jump.

3984. Providing the prices continue as they are now, how long will it take to cut the district timber out? I hardly think that they would ever cut it out. It gets thicker the longer it stands. The timber grows so freely that it is a great drawback to portions of the country.

3985. If the axe is put to it it will not stand? Almost forty years ago they were cutting away on the Lower Manning, and had a number of saw-mills; and they are cutting yet, and timber is thicker now than when they commenced to cut it. It is growing up, and if you were in some of the forests you would wonder how they would get out of them when the trees mature. You can hardly get through the timber now. Some of the trees are small, and do not make good mill-logs to be cut up into sawn timber.

3986. Was this land naturally open country, or had it been cleared? The only theory I heard put forward was that in olden times, when there was little stock, big bush-fires swept all the undergrowth out, and since the place has been overstocked the undergrowth has never been burnt out. It has never had a check. Whether that theory is right or wrong I cannot say.

3987. The grass is pretty well eaten down, and there is no danger of fire? The place is overstocked. In some cases where they ringbark the country it is cleared, and they never seem to have any more trouble; but here, if they ringbark one tree a dozen comes up in its place, and that makes the country worse than ever.

3988. Is much fruit grown in this district? There is a good deal of fruit grown, but there is an uncertainty as to getting it away. The only fruit exported is oranges, they being the only fruit that will keep.

3989. How does the soil here compare with the soil lower down the river? I think it is far better for fruit in the upper part because it is more hilly and is better drained.

3990. But, generally, is it not better soil here for all purposes? Yes; I think there is a greater depth of agricultural soil up here, and the grazing land, of course, is not flooded with water, the same as it is on the lower portion of the river.

3991. The banks of the river are higher here? Yes.

3992. Does the river ever go over the top of these banks;—only in places, I suppose? I think the greatest height is about 40 feet—at Wingham—but rises higher the further you go up the river. I think it is about 70 feet or 72 feet at Woodside; the farther you go up the higher it rises, and the farther you go down the less it rises, and the more the river spreads out.

3993. You were saying that you thought you could get your produce to market more cheaply by railway; have you ever sent or had goods brought by railway? I have never been personally connected with sending goods by railway, though I lived in Tamworth for some time. Taking the prices per ton, I think that with the exception of flour, sugar, and salt, we pay from 30s. to 50s. a ton dead weight. For a case of goods, 40 lb. or 50 lb., we pay 1s.

3994. That goes by measurement, does it not? No; they have a schedule rate for that.

3995. Do you not pay for dead-weight, as a rule, from 12s. 6d. to 15s. a ton? Salt, sugar, and flour are the only things that come under the dead-weight price by the steamer.

3996. Do you know what they charge per ton on the railway? No.

3997. Would you be surprised to know that they charge three or four times as much; supposing that for the goods which you get brought for 12s. 6d. or 15s. a ton by steamer the railway authorities wanted to charge you £3 or £2 10s.;—if you had a railway here would you have your goods brought by the boat or by the railway? By the cheaper route most likely. But do they charge £3 or £2 10s. per ton?

3998. They do in other places, and I do not think they would make an exception here; they would charge special rates on this line, at any rate, for a time, and not rates as low as those on the main trunk line? I do not know what freight my employer used to pay when I was living at Tamworth, but I have paid here £4 15s. a ton for identically the same goods as he had, and when I came here I found that I had to sell such goods for the same price as he did.

3999. *Mr. Hassall.*] Have you any return of the quantity of goods received here or the produce despatched? No; I have only my own. I pay about £200 a year freight on goods, with the exception of maize. That amount does not include maize. I have no returns of what I do pay on maize, but I have returns for the others, and I reckon there are five business men in town who do about the same amount of business as I do.

4000. How many tons of goods would that amount to? I have never worked it out in weight, but only have my freight lists.

4001. Your average yearly freight is about £200? Yes; to and fro, but that does not include the maize, of which I have not any account.

4002. The Secretary of the N.C.S.S. Co. says that their freight per ton from the Manning to Sydney is 12s. 6d. for dead weight or measurement, and the maize is carried at about 10s. a ton;—do you think that the railway could compete successfully with the water carriage? Not unless the railway carried at about the same prices, but the steamers do not carry goods, with the exception of sugar, flour, salt, and maize, at 12s. 6d. or 15s. a ton.

4003. That is his statement to the Committee. I presume that as a business man you would take the cheapest freights offered, whether by steamer or by a railway? Yes.

4004. If the steamers were able to undercut the railway, you would patronise the steamer presumably, if the river navigation were improved? Take 1 cwt. of soap, which is carried as dead weight. If you put anything else besides soap in the same box they charge you 1s. 6d.

4005. Have they a minimum charge for packages of that description? That is the freight I have always paid. I cannot say what they charge other men. I make their tonnage rate out for a lot of goods to be from 30s. to 50s. a ton.

4006. Mr. Cooke says they have a package rate for anything below $\frac{1}{2}$ ton, but that for parcels they get 1s., which at a tonnage rate might come to £2 or £3 per ton; but he says that two-thirds of the goods carried to the river go at the 12s. 6d. rate—that is, flour, sugar, and similar lines? Flour, sugar, and salt go at the 12s. 6d. rate if you have a ton weight, but otherwise you have to pay more.

4007. *Temporary Chairman.*] The minimum charge from Sydney to here for a package by rail would be 3s. 6d. up to 112 lb. You pay 1s. a bag for maize. The railway charge would be 13s. 4d. per ton; for timber, logs and girders, 17s. 6d. a ton; for sawn or split timber, £1 0s. 5d. a ton; for certain ores and minerals, 17s. 8d. per ton; for salt, £1 0s. 5d.; for bar iron, galvanised iron, £1 4s. 7d. a ton; for sugar and many other things, £3 12s. 9d. a ton; for groceries of all description and packed ironmongery, £4 10s. 4d. a ton; and for other things, £6 5s. 5d. per ton. That is according to the scale of railway charges on the main lines throughout the Colony. The only concession that the Railway Department offer is that they carry goods at per truck, and if you had the truck system here they would charge, I suppose, the same as on the Northern line, viz., £5 a ton, or £25 for a truck of 5 tons; for stock they would charge £6 17s. 3d. a truck, or 13s. 8d. per head; for butter, eggs, honey, and sundries of that kind, the minimum charge would be 2s. 9d. for a package of 56 lb. or under, and double that if over 56 lb. and under 112 lb., 112 lb. being the maximum package weight; therefore that rate very largely exceeds your steamer package rate;—do you think, in view of the facts I have just mentioned, and which I have extracted from the Government Railways rate-book, if those rates were charged to the people of this district they would patronise the railway for the conveyance of their goods either to or from Sydney? For the carriage of maize and of stock I believe they would.

4008. For anything else? And for pigs also, I suppose.

4009. For pigs the railway would charge £6 17s. 6d. a truck, and you could put as many in a truck as you could cram in, but you know pigs are animals that will not carry safely in large numbers, confined in a small space; they are not fed or watered whilst on the railway; a truck is supposed to carry ten horned cattle or nine horses, and from eighty to 110 sheep, according to their size and condition;—do you think that, with the prices I have quoted, the people of the district would be likely to patronise the railway? For some of those lines, of course, they could not.

4010. For your ordinary store goods you would have to pay no less than £4 10s. 4d. a ton, and for sugar £3 12s. 9d. per ton; those charges, remember, are for a ton or more; if the quantity were less the charges would be still higher;—you think, at the prices I have quoted, the railway would not capture the traffic of the district? Not the whole of it.

4011. You are aware that it is proposed to spend a considerable sum of money to improve the entrance to the Manning River, and the Departmental officers tell us that if the Committee recommend the expenditure of £100,000, in addition to the £23,000 already spent, they can guarantee for all time no less than 12 feet of water on the bar, and a corresponding depth in the river, and that would admit boats carrying 500 or 600 tons;—which do you think would be the most beneficial to the people of the Manning—the construction of a railway costing £1,000,000, or the making of a good harbour at one-tenth of that cost? If all the railway freights were at the rates you have mentioned, the steamer communication would be the better.

4012. If I have correctly quoted the railway rates to you, do you think that the making of a good harbour would be preferable in the interests of the district to the making of a railway? With the exception of live stock and maize and passengers.

4013. Live stock and passengers, of course, are more easily conveyed by rail than anything else, but this district does not live on live stock, nor by passengers who travel to and fro; it lives on the products of its soil, and that is the thing you have to consider;—as a storekeeper, supposing the railway were constructed, would you pay the N.C.S.N. Co. 12s. 6d. for sugar, or would you prefer to pay the railway £3 12s. 9d. a ton? I would patronise the steamer.

4014. As a matter of fact, as a business man, you would get your goods by the route that suited you best as to price, speed, &c.? Yes.

4015. Mr. Black has pointed out to you that the railway, if it were constructed, would involve an expenditure of £1,000,000; the estimate put before this Committee by the Traffic Manager was prepared by him after a visit to the district; he inspected the books of the shipping companies, and saw the total tonnage in and out of the district; he has had years of experience, and after making the most liberal allowance for increased freight and increase of population, he says that he cannot see that there would be a less loss than £31,000 a year for a very long time on the railway;—I want to put a straight question to you: Do you think the taxpayers of this country would be justified in spending £1,000,000 in building a railway by which they would lose £31,000 per year for the benefit of this district? I do not think they would be justified. At the same time, unless the Harbours and Rivers Department officers are sure that the expenditure of £100,000 at the Heads will improve the bar, that money might as well be spent on the railway.

4016. But, while you have doubt about the wisdom of constructing the railway, you approve of public money being spent on the Manning River to make it a good river for navigation purposes, by its being possible for boats to come in and go out at any time they please? Yes; I approve of that.

William Wallace Stewart, contractor, Wingham, sworn, and examined:—

4017. *Mr. Hassall.*] How long have you resided in this district? In the Manning River district about eleven years.

4018. Carrying on business as a contractor all that time? Not all that time—principally farming.

4019. What does your contract work consist of now—have you any contract in hand? I have not at the present moment. I have just completed a large contract for the Wingham Council.

4020. With reference to the proposal now before the Committee, have you any opinion to offer upon it? Yes, I have. Mr. Hammond was asked about the opening up of the country, and he spoke about selections and grazing country that might be opened up. I think that his evidence had reference principally to the frontages. I am quite satisfied there is a great deal of country which might be opened up that is not

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- not near the frontages at all, but is back country. Mr. Black asked Mr. Hammond a question in reference to fruit-growing. I am aware that there are thousands of acres of land that might be taken up, that would grow fruit or vegetables, or almost anything that one might like to plant, with the exception of maize, and that there is room on such land as I have mentioned for hundreds of people to make a living, and although I do not say that the freights on those products would be perhaps the means of getting a large revenue for a railway, still people could live by producing those things on those lands, and opening up the country in that way, who themselves would have to use the railway. I also noticed some remark as to the timber, and how long it would take to cut it out. No person cannot have any idea of the timber in this district unless they see it. It is to be found in the high-lands or table-lands of the district all the way along the North Coast, and within a few miles of where the railway would pass, if it went by the route which is proposed, by the Washpool and through Gloucester. The value of the timber alone is enough to pay for the building of a railway all the way from there to Taree. With regard to the price of live stock, I notice that the Chairman said that to carry a beast would cost about 13s. 4d. by the truck. Well, it costs 30s. to send a horse to Sydney by the steamer.
4021. Do you do a big trade in horses from here to Sydney? Not very big, but if a person could get horses carried for 13s. 4d. a head he might do a big trade.
4022. Have you any idea how many trucks of cattle or horses are sent during the course of twelve months? From 10,000 to 12,000 head of cattle, I daresay, go along annually, and I have no doubt, if they could be sent in in good condition, as they could be by railway, there would be a great deal more sent.
4023. Where is your fattening country? Inland—off the coast—at the heads of all the northern rivers.
4024. Mr. Harper estimates the number of live stock from Taree and district at 500 trucks, and putting ten head into a truck would give you 5,000 head of fat cattle for the year, or an equivalent number of horses? But Mr. Harper's estimate is based on what has gone, and not on what would go.
4025. But you must base your estimate on what you know is available; with regard to opening up the back country for dairying, would you open that up for dairying purposes? Certainly for fruit or vegetables—such things as potatoes.
4026. In any case, if that back country were opened up, I suppose the settlers would have a considerable distance to travel to strike the railway? Not very far.
4027. Is all the good country, then, adjacent to the proposed route of the railway? It would be.
4028. If that country is good, and it is stated repeatedly that there is a great demand for good land all through the Colony, how is it that we have so much vacant land adjacent to the proposed route of the railway; you see the map on the wall; you notice some portions marked yellow, those are all vacant Crown lands, which are available, and much of that land is right alongside the proposed route of the railway, and other portions of it are adjacent to the roads running down to Wingham, so they have means of access? Just so; but a great deal of that land will not produce things that are not perishable.
4029. Is the land scrubby? Yes.
4030. It would cost a considerable amount of money to clear it? It would.
4031. Then it would not be a good thing for a man with limited means to settle down upon it? A man with limited means does often go upon it, and finds that he was a fool in doing so, because he has no way of getting away perishable articles.
4032. If he has only small means, and has to commence on a small scale, that handicaps him? Yes, it does; but he often finds, after producing perishable things, that he cannot get them to market.
4033. You heard the evidence given in regard to the estimated cost of the proposed line? I did.
4034. One matter not mentioned was that this railway would run through 52 miles of the A.A. Co.'s estate? I am aware of that.
4035. And the A.A. Co. will not sell their land, which is any good, such as the land round Gloucester;—do you think that this country would be justified in spending £1,000,000 in constructing a railway from West Maitland to Taree, and running over 50 miles of it through the estate of a private company, and enhancing its value at the cost of the general public? I certainly do not think that would be a reasonable thing to do.
4036. Do you think that railway extension from West Maitland to Taree would be justifiable, the line to stop at Taree, or that it should only be constructed as part of the North Coast railway system? Most decidedly, as part of the North Coast railway. The better country is beyond Taree; for instance, on the Tweed. I know every foot of the country from here to the Tweed, and I am sure there is very much better country at that end.
4037. Practically, then, you are traversing the worst portion of the country from Dungog to Taree? Yes, undoubtedly.
4038. And beyond that the country improves? Very much.
4039. Therefore, you are of opinion that the proposal should be to construct a railway through all the North Coast, and that this line should form only a portion of that railway system? Unquestionably, that is my idea.
4040. *Temporary Chairman.*] The answer that you gave to Mr. Hassall's last question sums up the whole case;—you think that the capitals of New South Wales and Queensland should be connected by railway along the coast, and that this line should form a portion of that railway? That is my idea.
4041. But supposing that that is left out of the question, and Taree is for all time to be the objective point, do you think that the railway should be constructed? I should not advocate the construction of a railway to Taree alone.
4042. On the timber question, we were informed by a saw-mill proprietor, only a few miles from here, that all the good timber of the district was cut out? Then he does not know anything about it. No one can have any idea without seeing it what is the value of the timber in this country within a few miles of Wingham.
4043. I suppose that the other gentleman meant by his statement that the timber that used to be immediately available was cut out, and you mean that there is abundance of timber on the ridges which has never been touched—is that so? Yes; hundreds of thousands of pounds worth.
4044. Do you know the Hanging Rock? Yes; on the road to the Lansdowne.
4045. Does the timber in that locality give you a fair illustration of what the timber on the ridges is like? Yes; except that there is a great deal more of it on the ridges than there is about the Hanging Rock.

4046. In which direction do those timber ranges lie? About north-west from Wingham.
 4047. How far from Wingham? Within 20 miles of Wingham and less.
 4048. Therefore they are practically within 20 miles of water-carriage? Yes; and if the railway were running inland beyond Taree—from here to the Lansdowne, as it were—the distance would be very much less.

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William Fotheringham, hotelkeeper, and Mayor of Wingham, sworn, and examined:—

4049. *Mr. O'Connor.*] How long have you been in this district? About fifteen years in the upper portion of the Manning district.
 4050. How long in the Manning district? About thirty-four years.
 4051. You know the proposal to construct this railway, and you also know the proposal to improve the entrance to the harbour? Yes.
 4052. You have heard gentlemen giving evidence this afternoon? Yes.
 4053. Do you approve of the evidence given by them? Some of it.
 4054. Will you kindly tell the Committee where you agree, and where you disagree? As regards the freight for maize, the proposed line would run through the biggest portion of the country from which the maize, which goes from the wharf here, comes. The maize is brought in a distance of about 14 miles, and the maize-growers have to pay 1s. a bag for its conveyance to the wharf at Wingham.
 4055. The proposed railway would go right through that country? Yes.
 4056. And that 1s. a bag would be saved? Yes. They would not send the maize by steamer if they could get it taken away from near their own door by railway, even if they had to pay a little extra for railway freight. If the railway is going to stop at Taree, I do not consider it right to spend so much money on the line, but considering that we have to pay taxes for other railways, I think it is only a fair thing that this railway should go on to the Queensland border, even supposing it did not pay to Taree at first.
 4057. Then, you look upon a railway to Taree merely as a section of an extension to be carried out later on to the Queensland border? That is all.
 4058. Supposing it were an alternative that you should have the railway or harbour works—which do you think would benefit this district most? The railway, for the people here and above Wingham.
 4059. That is from Wingham westward? Yes. People on this end of the river are handicapped, they being charged for drogherage.
 4060. Do you know the country between Taree and the Queensland border? It is a good many years since I was on the Macleay or the Clarence, and I can only say that it is good maize-producing country.
 4061. It is pastoral or agricultural country? It is all agricultural country along the North Coast right away to the Clarence, which is as far as I have been.
 4062. Is there much land unoccupied there at the present time—not utilised—I do not mean merely taken up? I could not tell you.
 4063. What is the land that has been taken up and its extent, and are there any Crown lands there? I have no idea of any Crown lands available along the coast. As regards the back freight, I do not know what the steamers charge storekeepers, but I know that they charge us extraordinary rates.
 4064. What do they charge? One shilling and sixpence for a case of whisky or case of brandy, that is 9d. a gallon, in a case, for whisky, wine, or anything of that sort.
 4065. *Temporary Chairman.*] I think that all private companies of railway carriers charge a minimum rate for packages? Yes. It is all the same if you get twenty packages, which we generally do.
 4066. *Mr. Fegan.*] Do you mean to say that you would have to pay 1s. 6d. a package if you got 100 packages? Yes. They promised to make a concession if we took a dozen, but they will not do so. I have asked them, but they will not reduce the charge.
 4067. *Mr. Black.*] Are many horses bred in the district? A few.
 4068. Have you any idea how many? No; I have not.
 4069. Where do you find a market for them? They go to Maitland and to other places.
 4070. But if in any number, I suppose Maitland is the market? Yes, or Sydney. They drive them to Sydney sometimes.
 4071. What does it cost to travel them to Maitland? I do not know.
 4072. How long does it take to get them there? I cannot tell you.
 4073. *Temporary Chairman.*] How long have you lived here? Fifteen years here; but I was ten years on the lower part of the river.
 4074. Then you know the river and the district pretty well? I do, well.
 4075. Is there any scope for a largely-increased population on the Manning beyond what is already on it? I do not suppose there is very much scope from here to the Heads.
 4076. Have you had any experience of farming? No.
 4077. From what knowledge you have, do you consider that the lands between here and the Heads are fully occupied for agricultural purposes? I do not know that there is any land available. I cannot say if there is or not.
 4078. Would the land in the hands of private people support a larger population than it supports at the present time? Certainly it would.
 4079. So the lands are not utilised to their full extent? I am sure they are not.
 4080. Therefore, if better facilities were given to the district there is a chance of the district carrying a much larger population than it carries at the present time? Yes.

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Andrew Peter Gillogly, farmer, Marlee, near Wingham, sworn, and examined:—

4081. *Mr. Fegan.*] How long have you been in the district? About twenty-five years.
 4082. Therefore, you have a thorough knowledge not only of agriculture, but also of other branches of industry? Yes.
 4083. What have you followed beside ordinary farming? Stock-grazing in a small way—cattle, horses, and pigs.
 4084. What is the area of your holding? I have an interest in about 2,000 acres.
 4085. Have you any knowledge of timber-getting or its quality? I know a good deal about timber. I think I can endorse what Mr. Stewart said. It is astonishing the rapidity with which timber develops again where it has been cut. The timber in this district is of enormous growth.

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4086. We have evidence in reference to the timber of the district from Mr. Walters, and his evidence is to the effect that there are large belts of timber equal to those in any other portions of the Colony;—as far as the timber industry is concerned, you endorse the evidence given by Mr. Stewart? I can endorse it.

4087. In reference to your farming, to where do you send your pigs and cattle? The pigs principally to Sydney.

4088. How much do you pay? It would be very difficult to tell what we pay; but the freight is supposed to be from 1s. 6d. to 3s. 6d., according to the size of the pig; but owing to the great losses we incur very often in transit to Sydney, the freight, you may say, is 8s., and even double that per head in some cases.

4089. But is there not an agreement between you and the directors of the company as to the selling price of pigs in the market? Certainly; the freight is arranged according to the selling prices.

4090. Would you give us information as to the agreement between you and them—I suppose you have entered into an agreement with them? There is no direct agreement. We get the freight from the commission agent, and have to pay, whether it is 1s. 6d., 2s. 6d., or 3s. 6d.

4091. Will you give us, as well as you can, an idea of the custom—perhaps that is the better word? I fancy they go more by the size of a pig than by the price, when I come to think of it, for I have paid 3s. 6d. for a pig that sold for only 32s. 6d. It was the dead-pig fund that was running in my mind. I got a little mixed. I think it is the dead-pig fund that is paid for according to the selling price. It is 1s., I think, if a pig sells beyond 25s.

4092. How does the dead-pig fund come in—for instance, supposing that there are a number of pigs sent down, and some die on the voyage? I mean the seized pig fund. It is to bear the expense of the Health Act. Very often the pigs get diseased owing to the usage they get. I do not mean from direct ill-usage on the vessel, though there may be some of that; but the roughness they have to stand on the sea, in getting to Sydney, is the cause of it, and there is bad usage too.

4093. Shall I take it, then, that the average freight per pig is 2s. 6d. per head? Yes; I think that would meet it.

4094. I suppose you buy all your stores locally—you do not get them from Sydney? Part locally, and a good part from Sydney.

4095. I suppose you get them up here for 12s. 6d. a ton generally? It is mostly more than that from Sydney. In getting articles separately, I believe it is not too much to say that we have to pay at the rate of £3 or £4 or £5 a ton. We have had to pay 5s. on an article that would not, I believe, weigh much over 64 lb.

4096. Are you dairying on any part of your land? We do milk some cows, but we are not in the dairying business.

4097. You have not gone in for that yet? No.

4098. How near is the nearest butter factory from here? About 9 miles, I think. There are creameries much closer. Some of my land is in the Wallamba district, and the other about 11 miles in a north-westerly direction from Wingham.

4099. What produce do you grow? I go in for mixed farming—corn, tobacco, and a little fruit, which I would increase if we had the advantage of a railway.

4100. Supposing that this Committee were to recommend that this railway should be constructed, do you not think that there is a possibility of the steamship company reducing their freight considerably so as to retain the trade? I do not think it.

4101. Why? One reason is because we have been agitating as regards more conveniences between this and the metropolis as long as I can remember. We had a great job to get the present freights; in fact, we have never been served so well before as we are now.

4102. The freights have been much higher than they are now? Much higher.

4103. On account of no competition? No doubt that was responsible for some of it; but they have been making excuses about bad bars all along the North Coast, even much further than the Manning.

4104. It is proposed to spend £100,000 to complete the harbour works at the entrance to the Manning, to make a channel of 12 feet in depth, and also to take away the crossing where steamers ground so often; if that work were to be carried out, do you not think that that would take away their excuse, and give you greater weight with them when you ask them to reduce the freight? No doubt it would have an influence that way, if the improvements to the bar can be made perfect; but even so, I would say that it will never give the North Coast the lead that the railway would give it, for the railway would open up a lot of that country which is now pretty well in its original state, and there would be a dense population along this North Coast district.

4105. Taking from Maitland to the Manning Heads, do you think that this country is of such great importance that £100,000 should be spent upon harbour works and £1,000,000 on a railway from Maitland to Taree? I would not be inclined to spend so much on the bar—that is, if the cost would be too great for the two matters—for all along the North Coast I think it would take an enormous outlay to improve the bad bars. It is nearly the same thing on all the northern rivers. There is a river between Sydney and the Manning called the Wallamba, which has a very bad bar. There is rich land in that part of the district right up to the sea, and I have no doubt that the railway would be of great benefit even to that part, as well as to the Manning and the North Coast generally; for even if the railway did not go near enough to reach the farthest end of that locality, it would be inexpensive to construct a feeder—a small branch line—to reach the extremity.

4106. That would add additional cost of nearly £1,200,000 in order to have a feeder just to serve a small part of the district; if the harbour improvements be carried out, do you not think that the company would employ larger steamers than they do at present? I suppose that that would follow.

4107. Therefore, if the proposed railway were constructed competition would set in at once on the part of the steamers; and by employing a steamer twice the capacity of the present one, do you not think that the company would take produce much more cheaply than the railway could take it? They might take it more cheaply, but the steamer would not suit perishable products as well as the railway would. For the carriage of pigs I would rather give 3s. or 4s. to the railway than let the steamer take them for nothing; I would be in pocket.

4108. Have you come across many people like yourself? If people had to do with live stock I think a good many would be like me. I have done a good deal in the way of maize-growing, but have turned my attention principally to the raising of fat pigs.

4109. Do you find it pays you better? Yes; the difference between the railway freight and the steamer freight as regards pigs would not be very much; it would not be so much more on the railway as not to make it worth our while to patronise it.

4110. Especially as the river is at present; we are aware that you do not know when you will be able to load or unload, and you do not know when you can get a return trip; therefore, you suffer from uncertainty? Yes.

4111. But on the railway, the trains would leave according to time-table, and return at certain times; and for this reason, you say, you would prefer to pay a higher rate for the carriage of your live stock by rail than by boat? Yes.

4112. As regards maize, you would send it to the steamship company, who would carry it more cheaply, because you cannot count maize amongst perishable articles? Unless there were a great difference in freight I would much prefer the railway, for we have another great disadvantage in steam communication—we do not know that the vessel will not be detained in going to the metropolis. She may have to put in at some port if it is rough weather, and very likely we may lose a lot of the price. All along the North Coast, right to the Macleay and further, during the last few years, we have been blocked from the great market—the metropolis—for, owing to the bad bars we have not been able to reach the market before cargoes from America reached it. Grain was at a good price in Sydney, but we could not reach the market until grain had come from across the seas.

4113. Quick transit would give you the advantage of a good market? Yes.

4114. By rail you know exactly the time when your produce will arrive in the market, and knowing the market price for the produce, you can send it down accordingly, and take advantage of the market? Quite so. As regards fruit, I take a great interest. I have a very high idea of what could be done in the North Coast district in the way of fruit.

4115. How many acres have you under cultivation with fruit? I have not a great deal. We have a few young orange-trees. The want of a railway has kept the fruit industry very much back. A great many people would freely go into that industry if they had railway communication. This district is admirably suited for a variety of fruits. Oranges, all citrus fruits, apples, pears, persimmons, and Japanese date-plums, all flourish.

4116. Have you tried them? Yes; I know from experience that they will all grow first-class in this district, and there are tens of thousands of acres of unalienated land which, if we had the advantage of railway transit, I feel sure, would be opened up, but which, in the absence of a railway, will remain pretty well as it is now; in fact, I do not think there is any belt of country in the Colony that compares with the country lying between the sea and the Dividing Range along the North Coast. Taking into account our rainfall, and the variety of products that could be raised in this district, I think we can challenge competition, not only in the Colony, but also in any other part of the world; for even rainfalls, I think there is hardly a place in the world that could beat the North Coast district from about the Myall to the Richmond.

John Abbott, retired farmer, Woolla Woolla, near Wingham, sworn, and examined:—

4117. *Temporary Chairman.*] Where do you reside? Midway between Wingham and Taree.

4118. You have heard the evidence given by the various witnesses? Yes.

4119. Would you like to make a statement to the Committee either confirming or disapproving of any of the evidence you have heard? There has been nothing said of which I disapprove. I heartily concur in all that has been said, but I may add that if the railway were run to Taree the passenger traffic would considerably increase between the Manning and Sydney, because at present it is only real necessity that compels people to go from Taree to Sydney. Many men, and ladies and children especially, dread seasickness, and therefore drive overland rather than go by water. As to going to Sydney on pleasure trips, that is out of the question now, but if there were a railway here the passenger traffic would be more than quadrupled.

4120. Can you give us an approximate idea of the number of people you think would be likely to travel by the railway per annum? I think at least 1,000 per annum would travel from the Manning to Sydney, and *vice versa*.

4121. Mr. Harper allows £6,300 per annum for passengers? I do not know what the fares would be. I suppose the return fare from here to Sydney would be something like 50s. or £2.

4122. First-class would be about £2 and second-class 28s.? I also think that the produce of the district might be added to considerably by hay-growing, which is not gone into very much at present, except for local purposes, because we have not a market for it. We cannot get it to Sydney. We have only a small steamer trading between Sydney and the Manning, and it is not able to take cargo of that sort. There are thousands of acres not now cultivated that would grow lucerne and oaten hay, which is the best of hay.

4123. I suppose you could grow lucerne here? Yes; we have land fit to grow lucerne to any amount. We can grow vegetables and fruit of any description, and we only want a market for them. We have no market for perishable goods.

4124. What is embraced under the head of "perishable goods"? Fruits, and sometimes you may call pigs perishable. We are very often at considerable loss through having pigs bar-bound for several days. Perishable goods include oranges, apples, citrons, and lemons—we can grow any quantity of lemons—tomatoes, and many other fruits I cannot now enumerate. I have sent oranges to Sydney, and not received a tenth part of the price of them. People not in a position to have large farms could take up small farms, and go in for fruit and vegetable growing, amongst other things. A very small piece of land will keep a family by successfully growing fruit and vegetables.

4125. Is there much room in the district for an expansion of the population? There is a very great capacity for that.

4126. Could not the land sustain a much larger population than is now settled upon it? Yes; more than double. I have been on the river forty years. Twenty-five years ago the people thought the land was all occupied, and that there was not room for any more people; but the population has been increasing by births and migration, and the population is more than double, and there is room for as many more.

4127. As population increases, the land becomes subdivided? Yes; and more productive.

4128. And it will be still further subdivided as population further increases? Yes. There is plenty of room for subdivision, for half the land is not cultivated, but only scraped or tickled.

- J. Abbott. 4129. As regards the improvements at the Heads, £23,000 have been spent, and it is proposed now to spend £100,000 more;—do you think the country is justified in going to that expense to make a good harbour? In my humble opinion, it is not; because I do not think that they will ever make a good job of it.
- 6 June, 1898. 4130. The experts tell us that when the work is completed there will be 12 feet of water on the bar, and the same on the flats up the river? That is only imaginary. I do not think that any man could guarantee that depth of water.
4131. Assuming they are correct, do you think the money would be well spent? Yes, if they are correct; but my opinion is, they are not correct.
4132. Have you had any experience of such works? No; but I have watched the Heads for the last forty years. The bar is a shifting one.
4133. That work is designed to prevent a bar from accumulating at all—to remove it permanently? It will cost more than they anticipate to do that; and I do not think they will ever get rid of The Narrows.
4134. At all events, I suppose you think that something should be done to improve the harbour? Certainly.
4135. And if what the engineers say can be obtained, the Manning district, so far as water carriage is concerned, will be fairly well served? Yes.
4136. But your contention is that, notwithstanding the harbour, the railway should come here? That is my honest opinion.
4137. You have heard the amount of expenditure in the first instance—£1,000,000—with an annual loss of £31,000 afterwards; and, notwithstanding those facts, you believe that the district is of sufficient importance to justify the Government in spending that money? If this would be the only line in the country that did not pay, I should say that it would be wrong to construct it; but there are many other lines that do not pay, and as we contributed to the cost of building those lines, I certainly think that we should have a little share of the losses as well as other people.
4138. What you mean is, that you are entitled to share in the benefit, because you have to share in the losses? Yes.
4139. *Mr. Black.*] Would not that be a capital argument for building a railway everywhere? Some people make a capital argument of it if they want a railway at their own door.
4140. *Temporary Chairman.*] Supposing that Taree were the objective point of the railway, and that it were intended to end there for all time, and there was no talk of a North Coast line, would you, under those circumstances, feel justified in recommending this expenditure? Certainly I would not, because you only begin to get into the good country when you reach the Manning. I look upon this line as the first section of a railway going further on. The farther it goes along the coast the better it will be.
4141. Your contention is that if this line be constructed the force of public opinion will compel the Government to gradually extend it along the North Coast? I think so.
4142. And you believe it would then pay? I believe it would pay well.

TUESDAY, 7 JUNE, 1898.

[The Committee met at Harrington, at 5 p.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. DANIEL O'CONNOR.

JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.

GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Henry Deane Walsh, district engineer, Newcastle, sworn, and examined:—

- H. D. Walsh. 4143. *Chairman.*] What is the head of deepwater on the Paterson River? Paterson township.
- 7 June, 1898. 4144. What depth of water is there there? At Paterson wharf there is 12 feet.
4145. And immediately above Paterson? Above Paterson wharf, about half a mile, there is a waterfall—rocks—which permanently obstruct navigation. There are two companies trading there—the “Balmain,” line and the Newcastle and Hunter River Company—one up and one down each day. There is also a cream boat running to Duckenfield.
4146. You do not know anything about the trade? No.
4147. What is the draught of the boats going up there? The “Marie” draws 5 ft. 6 in. or 6 feet; they could not get any larger boat than the “Marie” up to Paterson. There are sharp bends which prevent a larger boat from going up.
4148. The nearest shipping place to Dungog is Clarencetown? Yes; it is 15 miles by road from Dungog to Clarencetown. There is deep water at Clarencetown. There is a shallow just above Clarencetown at the Bridge; therefore, Clarencetown is the head of navigation on the Williams, and the water-carriage would compete with the railway at that point.
4149. What kind of boat goes to Clarencetown? Boats drawing 10 feet go up to Clarencetown. There is a boat twice or three times a week going there, and there are timber vessels—schooners and vessels of that class.
4150. The boats run every second day, barring Sunday? Yes, three times a week; and there are timber-trade schooners.
4151. The next place is Stroud? Yes; the water carriage for Stroud is by the Karuah River—up to Karuah wharf about 10 miles below Stroud. The “Williams” draws about 5 ft. 6 in. loaded.
4152. Is there any probability of boats getting past Stroud? No; there is a rocky bar about half-a-mile above Karuah wharf. There are two or three boats; the “Tahlee” goes about once or twice a week, and also the “Williams.” Krambach is about 11 miles from Bullock wharf on the Wallamba River. Bullock wharf is the head of deep water, and it is chiefly droghers that go there now.

4153.

4153. How many go up? A good deal depends on the trade. I think there is a trader twice a week. The Breckenridge punts and the Bullock wharf saw-mill punts also go up there. Bullock wharf is a Government wharf. I do not think you can go up any further. H. D. Walsh.
7 June, 1898.
4154. What are you doing at the entrance to the Wallumba, near Forster? We have a sand-pump dredge at present working at the mouth of the Wallumba River. I expect to have 6 feet or 7 feet depth of water eventually at the wharf. There is a rocky bar near Failfort, with 4 ft. 6 in. on it. That could be easily removed. I have a vote of £5,000, to improve the entrance to the river Wallumba at Cape Hawke. I expect then that a boat of 6 ft. 6 in. or 7 ft. will be able to go up, and eventually an ocean-going boat will probably be able to go up to Bullock wharf.

THURSDAY, 9 JUNE, 1898.

[The Committee met at Kew, at 10:30 a.m.]

Present:—

THOMAS THOMSON EWING, Esq. (CHAIRMAN).

The Hon. DANIEL O'CONNOR,
JOHN LIONEL FEGAN, Esq.

THOMAS HENRY HASSALL, Esq.
GEORGE BLACK, Esq.

FRANCIS AUGUSTUS WRIGHT, Esq.

The Committee further considered the proposed Railway from Maitland to Taree.

Michael Fagan, landowner, Kendall, sworn, and examined:—

4155. *Chairman.*] How long have you been a resident in the district? I came here in 1873 and remained here ten years. I was away then a little while, but I have been a resident here about fourteen years altogether. M. Fagan.
9 June, 1898.
4156. Have you a good knowledge of the district? Yes. When I came here in 1873, there were at the most twenty residents on the River Camden Haven, from this end of it down to the Heads.
4157. How many are there now? I do not know exactly; but the number has materially increased.
4158. What is the occupation of the people here? Principally the timber industry and farming.
4159. What timber is there, and what do you do with it? There are five powerful saw-mills working here.
4160. Turning out how much? I suppose they would average fully 35,000 feet for each mill per week.
4161. Where does the timber go to? Sydney and Newcastle—principally to Sydney.
4162. Is there a large supply of timber yet remaining uncut? Yes; the choicest convenient timber has been taken, but a great quantity can be obtained yet by extending the tramways further back.
4163. Do you send any timber to England? They do not ship directly from here to England; there is not water enough on the bar.
4164. Is the timber eventually shipped to England? Yes; there are a great many orders received here.
4165. What form does it take? A great deal is cut for woodblocking. The kinds of timber are tallow-wood, blackbutt, red mahogany, turpentine, ironbark—in fact, almost any kind of good hardwood timber can be obtained here.
4166. Is the hickory of any value? There is no great quantity to be cut here. The timber is taken in log to the mill, and then it is cut. Thence it is shipped in coasting vessels drawing about 7 feet of water, and they take it direct to Sydney. Of the subsequent operations I have no knowledge in detail.
4167. Is any farm produce sent away from here? Yes; and there is a great deal consumed in the district.
4168. What do the farmers produce? Principally maize.
4169. And, of course, pigs and eggs, and that sort of thing? Yes.
4170. Does any quantity of maize go to Sydney? The local consumption here is very great. Seeing that there are five saw-mills at work, a great number of bullocks have to be used in drawing the timber, and these are principally fed with maize in the winter. Some of the maize is exported, and a great quantity is used by the bullock teams. Wheat, barley, and so on are shipped to Sydney.
4171. Do you advocate the construction of a North Coast railway? Yes; I am in favour of a North Coast line.
4172. Would you say what benefit it would be to you? I do not think that a railway would be a paying concern if it were taken merely from Maitland to Taree, and no further. That line must be a portion of the whole North Coast railway. I think this district would be largely benefited by a line passing the different places. There is an enormous area of land at the head of this river, called the Comboyne Scrub. I have never been right through that scrub, but I have heard it stated that it is about 15 miles square. I have had large experience in the big scrub on the Richmond River. I have seen it in its virgin state, and as it is at present, and I do not think that the land in the Comboyne Scrub is inferior to it; in fact, I think it is superior to it, in this respect—it has a more temperate climate, owing to being further south than the Richmond River, and also at a very great altitude. I believe that that scrub will be the future home of dairy-farming in this district.
4173. How far from here? Fifteen miles from Kendall, and Kendall is about 1 mile from here.
4174. There is 7 feet of water at Kendall wharf? Yes. If there should be dairy-farming at the Comboyne Scrub, the production of butter there will be a great industry, and butter is a product that requires a ready means of getting it away to market, and the butter-makers would, of course, prefer railway to sea carriage.
4175. Is the Comboyne Scrub alienated? I think that one portion at one side was taken up years ago, and that it has been sown with prairie and other grass seed, but I do not think there is any inhabitant there at the present time. If the Comboyne Scrub were thrown open in suitable blocks of 100 acres each, I think it would be quickly taken up.
4176. *Mr. Wright.*] Is it open now to conditional purchase? I am not quite sure that it is. There are some surveyed blocks of 300 acres and 400 acres, which were surveyed many years ago, and those were open to homestead selection some years ago; but I do not know whether they were or were not taken up. I think that the chief objection to taking them up would be on account of the largeness of the areas.

4177.

- M. Fagan. 4177. *Chairman.*] Is there a road up to it? Yes, *via* Kendall.
 9 June, 1898. 4178. A fairly good road? Yes; and it is very favourably situated. There is a gentle slope the last 5 miles, until you get into the Comboyne Scrub. I believe that that place will yet be valuable as a health resort on account of its high elevation.

John Moore, farmer and grazier, Kendall, sworn, and examined:—

- J. Moore. 4179. *Mr. Wright.*] Have you lived long in the district? About twenty-six years.
 9 June, 1898. 4180. Do you know it pretty well? Yes.
 4181. Have you heard Mr. Fagan's evidence? Yes.
 4182. Do you concur with what he said? Yes.
 4183. What benefit do you think a railway through this district would give to the people of the district? I consider that the benefit would be quicker transit to Sydney.
 4184. Do you think that the produce of the district would be carried by the railway if one were constructed? The biggest portion of it would be.
 4185. What portion of it would go by rail? All the perishable goods would go by rail quicker than by water, such as fruits and vegetables.
 4186. That would be a very small amount of freight for a railway; timber would not be carried by rail, I suppose? I think not.
 4187. Nor maize? Yes; I think maize would. Light timbers might also go by rail, such as cedar or beech.
 4188. Is there much cedar left in the district? Not a great deal, but there is a good deal of beech.
 4189. Do you think the maize would go by rail? Yes; I think so.
 4190. Do you think the advent of the railway would open up the country very much? Yes. With a railway the people would have a "show" of getting their grain away; now they cannot do so. They have to impose on some of the vessels taking timber away, and the millowners do not like their vessels to carry corn when they have timber to carry.
 4191. Are the vessels that come here owned by the timber merchants? They are chartered by them, and carry timber only as a rule.
 4192. It is a matter of favour for them to take any produce away? Yes.
 4193. Where is the good country in this district? Two or 3 miles back from the line.
 4194. What do you class the country we come along as? About the poorest.
 4195. On the creek frontages and flats, I suppose there is good land? Yes, and then it goes back into scrubby ridges.
 4196. Any good? The ridges are good for grazing if cleared. Along the line you travel about 12 miles through very good country, but by going 3 miles back you can travel through 30 miles of very good country—through the scrub from Lansdowne to The Hastings. That is all creeks and ridges.
 4197. Only suitable for grazing, is it? Little patches are suitable for agriculture.
 4198. But the bulk is suitable for grazing only? Yes.
 4199. Do you think that if the whole country were taken up for grazing purposes it would support a railway? It would go a great deal towards it.
 4200. The estimated cost of the railway to Taree alone is £1,000,000, and allowing the utmost margin for traffic, and increasing the present traffic of the district by 50 per cent., the Traffic Manager says that the loss would be £31,000 per annum, and he sees no possibility of that loss being decreased, at any rate for a very long time? I cannot say anything in regard to that, but I remember the time when the railway started from Newcastle to Maitland, and I have seen a train go up and come back empty.
 4201. But you have the Hunter River there? Surely The Hastings and the Manning ought to be able to compete with the Hunter.
 4202. Notwithstanding the very large cost and the large annual loss, you think the country would be justified in constructing the railway? Yes; I think so.
 4203. And also in constructing extensive harbour works at Port Macquarie and the Manning? I think that the harbour works, if they would stand, would be very good; but if they should not stand, where would we be then?
 4204. Supposing that the people of the district had their choice of a railway from Maitland to Taree, or improved navigation by means of these harbours, which would they prefer? Most of them would prefer the cheaper route.
 4205. The water route? Yes.
 4206. Do you know that to get store goods by rail would cost between £6 and £7 per ton, and sugar about £3 10s. a ton? The water carriage beats that a long way.
 4207. *Mr. O'Connor.*] That is to say, the water carriage is less? Yes, it would be cheaper than that.

William McGrath, Port Macquarie, sworn, and examined:—

- W. McGrath. 4208. *Mr. O'Connor.*] How long have you been in the district? On and off about seventeen years.
 9 June, 1898. 4209. You have heard the evidence of the two previous witnesses? Yes. I agree with something of what Mr. Fagan and Mr. Moore said, but not with all they said, for my firm opinion is that a North Coast railway will not pay for the next hundred years, especially where it is surveyed at the present time.
 4210. Will you tell us the reason why? I know the North Coast from Gloucester to the Nambucca; and where the railway is surveyed at present, I think that the only place where it crosses good land is about Wingham, on the Manning River. It goes through the Lansdowne and on to here, and runs through the poorest part of the North Coast, and I do not think that you would open up any fresh country by having the railway there. I do not see how any benefit from the railway would come to the people living here, for they would not support it, on account of water carriage being so cheap. Water carriage is now cheap, and it would be still cheaper if there were a railway here, for it would pay the steamship companies to carry freights from these rivers at about half for what they are carrying it now. I have had a good deal of experience in steamers. I have worked for the North Coast Company and for John See & Co., and I know what they charged for freight in olden times and considered it did not pay them, and yet now they are carrying at half the cost. I think the freight on timber from here would average about 2s. 9d. per 100 feet.

4211. Does that mean from Camden Haven? That is the freight from the whole river. There are some mills they charge 2s. 9d. and 3s., and then there are mills at Laurieton where they charge 2s. 6d., for they save towage. Kew and Kendall are as far as the vessels go. The freight on maize, I think, is 12s. 6d. a ton by steamer from Port Macquarie to Sydney, and I think it is cheaper from the Manning. I think it is 1s. a bag from the Manning, and a little more from Port Macquarie.
4212. Have you any idea what the distance is from Wingham to the Nambucca? I think about 160 miles.
4213. Are you acquainted with that country? I am, within a radius of 10 or 15 miles on each side of the line.
4214. And you maintain that the land is of such an impoverished character that it has no indications of being an agricultural country? Yes, where the line is at present surveyed.
4215. That opinion is based on your personal knowledge? Yes. You will strike good country on the Macleay, where the railway is to go. You must strike good country in crossing the Manning or the Macleay, because the whole of the river flats are good.
4216. Do you know the country north of the Macleay? I am not very well acquainted with it, but I have been through to the Bellinger.
4217. What distance would that be from the Nambucca? I think about 70 miles from Kempsey, north.
4218. And the land is very poor? The land you will travel through, and where the railway is going through is about the same as from the Manning River to here—similar all the way from here to Grafton.
4219. Well, as a matter of fact, you mean that it is not an agricultural country? Not where you are travelling it is not.
4220. I mean the proposed line of railway? It is not.
4221. It is principally forest? It is principally a barren poor country, no good to anyone.
4222. Is it good for timber? Yes; it would cost perhaps £20 an acre to clear and stump it, and when you had it cleared it would not be worth £1 an acre for agriculture. My experience of the North Coast district is that the only place where there is good land is on the banks of the rivers, and that between all the rivers it is no good at all.
4223. And on the rivers the people have the facilities of water carriage, and if a railway were constructed to-morrow they would not use it? They would not support the railway.
4224. And the only thing the Government could look to for a return on their large outlay, which would be £1,000,000 alone to Taree, and would be multiplied proportionately according to extra distance, would be people going to Sydney now and again on pleasure or business? Yes.
4225. I suppose the population is limited? It has increased wonderfully since I came to Camden Haven. There was not one-fourth of the present population when I came to this district. I think that a train once a year would accommodate the people so far as passenger traffic is concerned.

W. McGrath.
9 June, 1898

Henry James Perrett, saw-miller, Kendall, sworn, and examined:—

4226. *Mr. Hassall.*] With regard to the evidence previously given, do you agree or disagree with it? I disagree with some of it, and I agree with other portions.
4227. What do you agree with? I agree with what Mr. Fagan and Mr. Moore said.
4228. The desirability of constructing a railway through this country? Yes.
4229. You do not agree with the evidence of the last witness, who says that he does not think it would be justifiable? No, I do not.
4230. In dealing with your own business, can you give the Committee some good reasons why you think a railway should be constructed here? Because it would open up a lot of country and locate a lot of families here.
4231. What country would it open up? It would open up thousands of acres this side of the Comboyne, from Kendall up.
4232. What description of country? Good country for grazing, and some for agriculture.
4233. What is the character of the country? Scrubby ridges.
4234. That would necessitate a considerable amount of expenditure in clearing to make them capable of being profitably occupied? Not a great deal. I have cleared a lot of it, and know what it costs.
4235. What does it cost? About £2 10s. an acre to bring it into grass.
4236. That means practically ringbarking the trees and scrubbing the undergrowth so as to give the grass a chance, and make it profitable for grazing? Yes; you can make it fit for the use of cattle for £2 10s. an acre.
4237. You say there is a very large area of that country? Yes.
4238. Extending how far? I suppose it extends 20 or 30 miles.
4239. Twenty or 30 miles square, or in length? In length.
4240. By what width? Six or 7 miles.
4241. That includes the Comboyne country? Yes.
4242. Are there any farmers settled about this country? Towards the Comboyne here are, but not on the Comboyne; there are, 9 or 10 miles up—within 5 or 6 miles of the Comboyne.
4243. On what watercourses? On the Camden Haven River.
4244. Are there many settlers? A good few.
4245. What do they produce? Corn, pigs—general farm produce.
4246. Can you say whether most of that produce is consumed locally? A great deal of it is. It depends on the season.
4247. If there are a number of farmers here, and they produce a great deal, how is it that there is no boat trading here to take the produce away? Because a great deal of it is consumed here, and sometimes we ship it in our vessels for them.
4248. I allude to the evidence of the previous witnesses, who said that they were dependant on the timber vessels to take the produce away? That is correct; there is not enough to keep a boat constantly going.
4249. Do you think there is enough to keep a train going? By opening up the country, I do.
4250. With regard to the despatch of your own timber to Sydney—how do you get it away? By sailing vessels.
4251. From your own wharf to Sydney? Yes.

H. J. Perrett.
9 June, 1898.

- H. J. Perrett. 4252. Do you charter those vessels? Yes; we charter at so much per 100 feet.
4253. What is the rate of freight? Two shillings and ninepence per 100 feet, at present,
- 9 June, 1898. 4254. How much would that be in tons? There are 3 tons in 1,000 feet of timber.
4255. That would be 27s. 6d. for 3 tons? Yes; that is, on timber to Sydney.
4256. Seeing that you can convey your timber at about 9s. per ton from here to Sydney, and the approximate rate by railway would be something like 27s. a ton, which mode of conveyance would you patronise? I would certainly patronise the cheaper route; but it would depend where the timber was going to. If it were going to Maitland we would probably send some by railway, because that would save double freight.
4257. I do not think you could compete with timber grown nearer to Maitland or Newcastle? I am cutting some now for the Gunnedah bridge, over the Namoi.
4258. You will always adopt the cheapest mode of conveyance you can for your timber? Most certainly.
4259. Because timber is not a product that will bear an expensive rate of carriage? No; it is not.
4260. You are bound, as a business man, to adopt the cheapest? Only in certain cases would the timber go by rail.
4261. With regard to the other timber businesses in the district, I presume that they carry on operations in much the same way as yourself? Exactly.
4262. So practically in giving evidence for yourself you are also doing so for everyone in a similar line of business? Exactly.
4263. And I presume they would do as you would, that is, take the cheapest mode of carriage to the market they would wish to reach? Yes; as business men they undoubtedly would.
4264. In sending timber you would undoubtedly send it by water? Yes, if it were the cheaper; but if the railway were the cheaper we would send it by the railway.
4265. You would patronise whichever was the cheaper? Exactly.
4266. How far back have you to go for good timber now? About 4 or 5 miles, and even further.
4267. What is the farthest distance you have penetrated into the scrub? I think 7 or 8 miles.
4268. You draw timber for a distance of 7 or 8 miles? Yes.
4269. What is the supply like? Practically inexhaustible—that is west from here.
4270. Does that timber run through the belt of country you described, at the Comboyne? It runs towards it. There is no hardwood on the Comboyne.
4271. It is on a belt of country lying between here and the Comboyne? Yes.
4272. How many miles in width? Thirty or 40 miles.
4273. The length you cannot estimate? No; I cannot.
4274. It practically follows the coastal range? Yes.
4275. You look upon the timber industry as the principal industry of this district? At present, but not in the future.
4276. What do you look for in the future? Dairying, and the agricultural business.
4277. In the event of the country being opened up for dairying I presume that creameries and butter factories will be established here, as they have been in the South Coast district? Undoubtedly.
4278. Then butter would be the principal product sent away from the dairy farms? Yes, and pigs and calves—the outcome of good dairy farming.
4279. In view of the fact that butter is a product that can be conveyed by steamer or other boat almost equally as well as by railway, do you not think that the butter-makers would adopt that as being the cheaper method of transit? I question that, because the sooner you get that kind of article to market the better.
4280. In opening up this country, is it not probable that butter factories would be established on the navigable water? Very probably.
4281. What are the facilities for shipping from here? Only by sailing vessel, which is very erratic. They have an auxiliary boat—a small steamer called the “Billie Barlow,” but her movements are most erratic.
4282. With what draught can a vessel come in and out here over the bar? About 7 ft. 6 in.
4283. Do you think that if the entrance to the Camden Haven were improved a larger and better class of vessels might easily come in? Of course I do, if you improve it. The entrance is being improved at the present time.
4284. Do you think that the improvement of the entrance will have a beneficial effect on the trade of the district? That remains to be seen.
4285. A problem—like the railway? Yes.
4286. Do you think that by improving the entrance, so that a better class of vessels could come in, an increased trade might result? Undoubtedly, trade is increasing every day.
4287. A better class of timber vessel could come in? You might get a larger vessel, but I think the draught would be about the same. Home vessels never come here.
4288. Therefore, you practically look to Sydney or Newcastle as the place to which you can send your timber either for consumption in that market or for transhipment to other places by larger vessels? Yes. At the present time we are cutting timber for export, but have to tranship it, and if we had vessels trading directly here for it it could be sold more reasonably, and we could get a better profit, but we are not likely to have that.
4289. What is the return freight—freight per ton from Sydney to here? About 15s.
4290. And the rate of produce, I presume about the same from here to Sydney? Yes.
4291. And the passenger rates? We go to the Manning or Port Macquarie, so whatever the passenger rates from either of those places are they are our rates.
4292. *Mr. Wright.*] The rate for second-class goods on the railway, which would embrace a great many of the heavy goods you use, would be £4 10s. per ton, and second-class goods £5 a ton; do you think there is any possibility of that competing against your water-carriage? Not at all.
4293. That rate is based on the main line rates, and very likely the Railway Commissioners would expect a local rate, a higher rate; therefore, there is no chance of those goods being sent by this railway? Of course, we would patronise the cheaper route.
4294. The minimum rate for parcels would be 3s. 9d. for this district? Yes.
4295. There would be no chance of a railway competing with vessels in regard to them? No.

David Laughlin, farmer, Camden Haven, sworn, and examined :—

D. Laughlin,

9 June, 1898.

4296. *Mr. Fegan.*] How far from here do you live? About 1 mile.
4297. And how far from the river? On the bank of the river.
4298. Do you know the route for the proposed railway from Maitland to Taree, and would that serve you, as a farmer, in any way? I should like to speak locally. I have been a resident here for over twenty years. I concur in some of the evidence that has been given; but there is one point which seems to me to have been lost sight of.
4299. Do you agree with Mr. McGrath? No.
4300. In whose evidence do you concur? The evidence as regards freights and other things; but I think the country has been described by Mr. McGrath in a wrong way. I know the district around here pretty well, and I believe that the railway would do a great deal of good. One of the great disadvantages of the people on this river has been from saw-millers controlling the whole of the river. The people have been compelled to settle on the banks; and the reason why there is not much farming done on the river is because of the disadvantages in getting produce away from the river.
4301. Have steamers refused to take your produce to market? It is only lately we have had a steamer.
4302. Well, have vessels refused to take your produce to market? Yes.
4303. Since the introduction of the steam service so far have the steamers refused to take your produce to market? The people have had no encouragement to grow anything, and that steamer itself is now under charter by the saw-millers to take timber.
4304. Have they refused to take your produce to market? Not yet.
4305. So the time of refusal is yet to come? Yes. Over the ridges there are many patches of land which is really good, which would draw the people from the river banks; and I believe that comfortable homes could be made up on the banks of the Camden Haven by means of this railway. I am not speaking of the Comboyne at all, but between here and the Manning. The production of the district would be much increased by the railway.
4306. Did you ever know a steamship company refuse to supply people with means of communication if they saw a good prospect of a fair trade? I have been shown a letter, in which Mr. John See offered to send a boat here if the saw-millers would support him partly, and if the farmers would also. I have reason to believe that that letter was never shown to the farmers, and the boat was never sent.
4307. Therefore, if the farmers were to agree to assist that boat it would be of no use talking about a railway service here, would it? Only for the patches I have spoken of, which would be off the rivers.
4308. But supposing the farmers were to agree to support the boat promised by Mr. John See on the condition that some of the saw-mill proprietors would accept their share of responsibility in the way of support, do you not think that that would give sufficient means of transit to the people of this district? I believe it would still leave them in about the same position as they are in at the present time.
4309. If they were to give a promise to Mr. See that they would send their produce to market by his boats, how could they give any trade to the railway then? The railway would be an independent thing, apart from private companies.
4310. Mr. See will not send the steamer up here unless he gets a guarantee from the farmers, along with some of the saw-mill proprietors, but as soon as he gets that guarantee he will send his vessel. If a railway were constructed would it be honorable for those men to break that guarantee, after giving it to Mr. See to use his vessel? But I think that when you are constructing a railway you do not consider such things. A number of small settlements might be opened up which would not be bound up with the agreement at all. For instance, people on the Comboyne, and those with dairy factories, who would be foolish to bind themselves at all.
4311. While you agree chiefly with the evidence given by the other witnesses, but disagree very materially with the evidence given by Mr. McGrath, do you think that the chief reason why the railway should be constructed here is that you believe it would open up a large tract of country? Yes; and give homes to the people.
4312. What do you grow as a farmer? Maize is the chief thing.
4313. Where do you send your maize to? We sell it to the bullock-drivers, they being our best customers on account of the disadvantages in getting it away.
4314. Have you sent any to Sydney? I have never sent any.
4315. How long have you been growing it? Only for about a year or so, but my father before that grew it, and used to send some of it to Sydney.
4316. You find that in selling it to the bullock-drivers, you get a better price than you would get in sending it to market? Yes.
4317. And there is less trouble and less anxiety? Yes.
4318. What is the difference between the price you would get at Sydney and the price you get from the teamsters? I can scarcely say. I think it takes nearly half of it to pay the expenses to Sydney, and it would largely depend on the market price. If 2s. 6d. were the price of corn in Sydney you might get 1s. 6d.
4319. Do you get 1s. 6d. from the teamsters? We get 2s. 6d. a bag for the cob corn.
4320. Does 2s. 6d. pay you to grow it? Yes.
4321. So you do not want any kind of communication? We want to extend a little faster than we are doing. It is a long time since we were extending.
4322. How many acres have you? 161 acres.
4323. How many under crop at present? I have none under crop just now, but part of it I am grazing.
4324. What do you graze? Cattle.
4325. How many acres per head? Twenty-three head on about 140 acres.
4326. About 5 or 6 acres to a beast? Yes. I hope that you will take into consideration that there is a quantity of land between here and the Manning that might be opened up for homes.

Alfred Brooks, resident engineer, Camden Haven, sworn, and examined :—

4327. *Chairman.*] You are at present in charge of the works being carried out at Port Macquarie? Yes, and also at Camden Haven. A. Brooks.

4328. *Mr. Black.*] Have you a statement to make? The natural entrance to Camden Haven is very circuitous. It passes with a southerly turn round an island and immediately in an undesirable direction to

to

9 June, 1898.

- A. Brooks. to sea. We are putting a cut through a neck of land which will give it a direct exit, and I think it is probable that we will have 12 feet or 14 feet of water, whereas at present we have not much. Six feet is a fair average, and at times it is as low as 4 feet, and the crossing inside also furnishes some obstruction. It is about 18 inches shallower than the bar. The scheme I am at present carrying out is a southern guide-wall. I have already explained about the cut through the headland. To the north of that again, a distance of some 400 feet or more, is the northern wall. No breakwaters are necessary, because the long headland shown on the south of the map furnishes us with reasonable protection. The estimated cost of the works is £5,000.
- 9 June, 1898.
4329. I suppose you have some protection on the north from the granite head? It is a slight protection.
4330. There is no well-defined headland on the north? No, just a sandspit. The north wall will run to the eastward of the sandspit.
4331. Do you think that will be sufficient to prevent the silting up of the entrance? I do not see how there could be any silting up then. It will be a straight scour, and the waters will be so much confined. I believe that there will be no serious danger from the shoaling of the bay—that the littoral current will in all probability be sufficient to remove any stuff that comes down.
4332. I suppose that is an easy harbour to make in south-easterly weather? Yes. In the "Maitland" gale a vessel could have remained at anchor safely at sea under the headland.
4333. How about a northerly? We have very heavy gales from the north, but the southerly gales generally veer round to the eastward, and vessels would be unprotected.
4334. In case of northerly or easterly weather would not the northern breakwater be a protection to vessels making the harbour? There are no heavy gales from the north. More than three-fourths of the gales are from the south-east. It would cost a large amount of money to make a wall to give protection from northerly weather.
4335. Above your proposed training-banks is the river fairly open? No. There has been a lot of dredging done on the river. Queen's Lake is practically open to navigation only by droghers drawing 2 ft. 6 in. of water.
4336. It is salt water? Yes; but the rise and the fall of the tide is not more than 15 to 18 inches at Taylor's Lake, at high spring tides.
4337. How is the land about the shores there? It is very poor soil, but good timber land.
4338. Sandy rocky country? To the north of it is barren heavy country, and to the south it is good hardwood ridges, but, in my opinion, not suitable for cultivation. It would not feed a bandicoot.
4339. Do you think that if a railway were constructed there would be any amount of settlement there? Of course, railways always lead to settlement.
4340. Not always? Well, generally. I am not competent to speak on that question. I have been there only eight months.
4341. *Mr. O'Connor.*] What is the width of the entrance? 400 feet between the proposed walls.
4342. *Mr. Black.*] From the western side of the training-wall to where the river opens out into the lake, what depth of water is there? I think I am justified in saying there would be 9 feet.
4343. And across the lake what depth? Four feet 6 inches at high water. The channel has all been dredged. There is a depth of 9 feet from the end of the training-wall to the other side of the lake at the Devil's Elbow. From the remainder of Watson Taylor's lake to the wharf at the John's River the average depth is 4 feet 6 inches. From the Devil's Elbow, going up to Kendall, at spring tides there is 7 feet.
4344. What streams run into Watson Taylor's lake? The John's River is the principal river—in fact, the only one of any importance—and the Camden Haven River also runs into it. The latter stream is navigable up to Kendall for vessels drawing 6 feet of water.
4345. How far is the John's River navigable? About 2½ miles.
4346. What about Queen's Lake? It was fordable some years ago, but there is a channel that runs into it. Several creeks, including Heron's Creek, Bob's Creek, and Limeburner's Creek run into it.
4347. There is no traffic through it? Only the saw-mill droghers.
4348. Flat-bottomed, I suppose? It is only navigable by flat-bottomed timber scows.
4349. Then you do not think that either with a railway or without a railway there is any great future for the country in the vicinity of those lakes, do you? Not agricultural.
4350. What do you think will happen when the timber is cut out? The land will all be fit for grazing then.
4351. But a grazing country does not carry so large a population as a timber-cutting country, does it? No.
4352. Then the effect of the destruction of the forest, which means the handing over of the land to pastoral purposes, will be a reduction of the population? Yes.
4353. In that case, in the absence of agricultural land, it is hardly likely that the construction of the railway will lead to much closer settlement? No; I think not.
4354. Do you know of any good agricultural land in any quantity in the vicinity of those streams of which you have been speaking? Not of my own knowledge.
4355. If this proposed improvement to the Camden Haven inlet be carried out, is it your opinion that, with a safer entrance and a deeper stream, the facilities of the district for getting produce to market will be equal to its requirements? I should think so.

PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

Railway from Maitland to Taree.

APPENDIX.

SWORN STATEMENT BY THOMAS DYKES, COOPERNOOK.

Re North Coast Railway.

I HAVE been a resident of the Manning about thirty years, and during that time have been engaged as a farmer, grazier, storekeeper, auctioneer, and valuator, and am the owner of 231 acres of land in this district. I would be in favour of the North Coast Railway if it went right through the North Coast districts, and formed a line to the Queensland border. But I do not think that a railway from Maitland to Taree only would pay, because, by stopping there it would not tap sufficient agricultural land south of Taree to make it pay; and also in consequence of the cheaper water-carriage here, especially as all the townships of the Manning, and most of the settlers, too, are either on or close to the banks of the river, and the steamers take the produce from, and leave the back freights at or near their doors, and the rates of freight per rail would in most instances be higher than by steamship, and the carriage from the several railway terminuses would be a considerable item of further expense. Nor can I agree that all the Upper Manning farmers would be such a great help to the railway, as the dairying industry is now taking the place of maize-growing. And when we consider the prices of maize and butter ruling to-day, viz., the former at 2s. 3d. per bushel, and the latter at 1s. 2d. per lb., I find that it will take (after the usual expenses are paid upon both articles) 34 tons or 1,370 bushels of maize to realize the same amount of money as 1 ton of butter. I have, therefore, every reason to believe that before very long most of those farmers will give up a large percentage of their maize-growing, and go strongly into dairying, get separators of their own (if there is not a separating station handy), and send their cream to a central factory on the banks of this river. And with a safe entrance to the river and cool chambers on the steamers, I believe the bulk of the butter would go to Sydney by water. There would, therefore, be very little more than the passenger, live stock, and fruit trade for the railway, as far as this district is concerned. But if the railway were extended right through all the North Coast districts it would pay very much better, because there would be a lot of intermediate traffic beside the traffic to the metropolis, and also because it would tap very much better land north of Taree than south of it, and the more thickly-populated and richer-producing centres up north would help to pay for the thinly-populated and smaller-producing centres down south. And to open up this North Coast Railway would be the means of settling a large number of people upon a vast area of land that could be converted into wheat-growing, dairying, and fruit-growing, upon a remunerative scale, which is now lying idle on account of the long distance of haulage to a shipping port. We have in the Coopernook forest alone (which at the furthest point is within 3 miles of the surveyed railway line) some thousands of acres of Crown lands, which, it has been proved, cannot be beaten in the Colony as orchard and vineyard land, and upon which some very fine patches of wheat, tobacco, &c., have been grown. And the most of the forest lands north of the Manning are similar in quality to the Coopernook forest, upon which a lot of money could be made upon fruit alone if the railway were constructed, so that the settlers thereon could be sure of getting their produce to market in a marketable condition. I admit and recognize the fact that it would take from seven to ten years (according to the different kinds of fruit) for the land to be cleared and the trees in full bearing. But the settlers in the meantime could be growing tobacco, wheat, oats, potatoes, and all kinds of vegetables, and raising pigs, poultry, &c., for market, while their trees were maturing.

Hitherto, it has been the practice of the Government to wait till the people went out and opened up the country, and underwent the privations of getting their produce to a market as best they could for a number of years, before they would assist those settlers with roads or bridges, which has greatly retarded the agricultural progress of the Colony. And although the North Coast Railway would not be a paying concern for the first few years, yet I consider it a national work which the country is entitled to for very many reasons. And I feel confident that it would, if constructed as above stated, open up a vast area of new country, and be the means of settling a large population upon the land which is now lying idle, and, I believe, would eventually pay a satisfactory return.

(Signed) THOS. DYKES.

Coopernook, 9/6/98.

Sworn before me, at Coopernook, 15th June, 1898,—
F. A. WRIGHT, J.P.

[One plan.]

1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

EIGHTEENTH ANNUAL REPORT

OF THE

DEPARTMENT OF LANDS,

BEING FOR THE YEAR

1897.

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

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1898.

LEGISLATIVE ASSEMBLY.
NEW SOUTH WALES.

DEPARTMENT OF LANDS.

(EIGHTEENTH ANNUAL REPORT.)

Printed under No. 1 Report from Printing Committee, 30 June, 1898.

To the Honorable J. H. Carruthers, Esq., M.P., Secretary for Lands.

Sir,

Department of Lands, Sydney, 2nd May, 1898.

I have the honor to submit for your information the eighteenth Annual Report of the business of the Department, being that for the year 1897.

Land continues to be largely sought after under the new tenures created by the Act of 1895, 71 per cent. of the total area made available for homestead selection and 57 per cent. of that made available for settlement lease since 1895 having already been taken up. These percentages would, however, be much higher if certain districts were eliminated in which there was no expectation of any immediate demand for land from the outset. Up to the end of 1897, 1,919 homestead selections and 529 settlement leases were secured by applicants, the former representing an area of 692,255 acres, and the latter an area of 1,469,311 acres. The activity displayed in these directions is noticeable in comparison with the few conditional purchases which, during recent years, have been applied for (the year 1897 showing the smallest record next to the year 1896 since the Crown Lands Act of 1884 came into operation), although, in considering this fact, the effect of setting apart land for a particular class of holding must not, of course, be lost sight of. As an instance, however, of the keen demand for land under homestead selection and settlement lease it may be mentioned that on the 5th August last, after land had, in consequence of the drought, been held back for two months, 2,137 applicants presented themselves for 179 blocks, while at Corowa alone there were no fewer than 1,366 applicants for 8 blocks which had been thrown open in that particular district.

During the year the following important measures were added to the Statute Book:—

The Church and School Lands Act, 1897.

The Public Roads Act of 1897.

The Public Trusts Act, 1897.

The Real Property (Crown Lands) Act, 1897.

The Church and School Lands Act had to take into account that, under the previously existing Acts, a number of leases had been granted for agricultural, pastoral, and mining purposes respectively, limited to a certain number of years, without any provision for disposal of the land upon their expiration; and that the occupants of the land had been anxiously awaiting legislation of a remedial character such as the present Act now affords. The new Act repealed the former Acts, and provided that, in future, the land should come within the category of Crown lands;

that the revenues derivable from it should be paid into the Consolidated Revenue Fund, instead of being devoted to Public School purposes; and that the Public Instruction Endowment Account should be closed, but all moneys to the credit of it, after meeting any claims upon the account, should be applied towards the erection and maintenance of Public School buildings. Holders of existing leases are afforded the opportunity of converting them into such holdings under the Crown Lands Acts as homestead selections, settlement leases, special leases, and improvement leases. Where the areas are small, and comprise town or suburban lots, the leases may be converted into special purchases under the provisions of section 66 of the Crown Lands Act of 1884. The privilege of conversion is, however, left to the option of the lessees, who, notwithstanding that they may not avail themselves of it, are entitled to apply for a reappraisalment of their rents, and are given tenant-right in improvements when their leases expire by effluxion of time. Mining leases may be brought under the provisions of the Mining Acts relating to ordinary Crown lands.

The Public Roads Act of 1897 almost entirely supersedes the Public Roads Act 4 William IV No. XI, which became law so far back as the year 1833, and has remained in existence ever since. The new Act is not only of a very comprehensive character, containing as it does no fewer than twenty-nine clauses, but is framed on more modern lines, and with the appreciation of the legislation that has taken place during the long interval referred to. Apart from this, the Act is more liberal and elastic in its general provisions, and differs from previous legislation in containing a clear recognition of the right to compensation where roads are taken through freehold and other lands.

The Public Trusts Act has introduced some very necessary provisions and amendments, the absence of which had occasioned a good deal of inconvenience, such as the power to appoint trustees for lands temporarily reserved from sale, to appoint Municipal Councils and corporate bodies as trustees, and to in part revoke a dedication without, as heretofore, the necessity of revoking the dedication altogether. The Act also invests the Minister with the very desirable power of directing an inspection of dedicated lands and an audit of the trustees' books, and of requiring trustees to furnish accounts showing how moneys granted by the Crown have been expended.

The Real Property (Crown Lands) Act of 1897 gives an executor, trustee, or administrator power to exchange private lands for Crown lands, subject, in the case of an administrator, to the consent of all persons beneficially interested, or to the order of the Court. This provision was requisite, as the representatives of deceased persons found themselves unnecessarily limited so far as regards certain powers, the exercise of which they might consider to be of large advantage to the beneficiaries. The Act also allows the Registrar-General to exercise the same powers for the purpose of correcting errors in Crown grants registered under the Real Property Act as he possesses under that Act with respect to certificates of title.

Work in connection with the Land Tax.—The fact that each of the District Surveyors was appointed a District Commissioner under the Land and Income Tax Assessment Act necessarily threw a large amount of extra responsibility on this Department, and in order to keep pace with the demand for land for settlement purposes it was found necessary last year to strengthen some of the District Offices. The appointment was, however, a very desirable and convenient one both to the Crown and to the parties interested, and it is satisfactory to feel that the dual and onerous responsibilities which it occasioned have been adequately discharged.

Transfer of Forest Branch.—The administration of that part of the Crown Lands Acts and Regulations which deals with State forests, timber reserves, the conservation of timber, and issue of timber and other licenses was, together with the administration of the Prickly Pear Act, transferred on the 1st October last from the Department of Mines and Agriculture to this Department. This change, which was not made until after an inquiry by the Public Service Board, will no doubt prove an advantageous one, inasmuch as the work is more closely related to this than to any other Department, and the matters dealt with affect questions relating to Crown lands.

Norfolk Island.—Since the 23rd March, 1897, all Ministerial functions in connection with the affairs of Norfolk Island have been performed by the Secretary for Lands, to whom they were duly committed by His Excellency the Governor, with the advice of the Executive Council.

Judicial

Judicial Decisions.

A brief epitome of cases decided by the Supreme Court which affect the administration of the Crown Lands Acts is given hereunder:—

Attorney-General v. Perpetual Trustee Company.—This was an action in the nature of a writ of intrusion, brought by the Attorney-General against the Perpetual Trustee Company, to recover possession of the 100-foot reservation above high water mark along the water frontage of a parcel of land containing 70 acres, situated at Stockton, near Newcastle. This land, which was granted in the year 1835, formed part of the Quigley Estate, for which the defendant company was trustee. It was alleged, on behalf of the Crown, that the defendant company, as trustees, had trespassed upon the 100-foot reservation, and illegally entered into possession of the water frontage. Defendants denied the trespass, and contended that the original high water mark had so altered and shifted since the date of the grant that it was impossible to locate it, or to determine whether any encroachment had been made upon the reservation. The question involved was merely one of fact, which the jury decided in favour of the Crown.—*S. M. Herald*, 18th September, 1897.

J. A. Gardiner v. the Minister for Lands.—This was a special case stated by the Land Appeal Court for decision. On the 4th April, 1889, J. A. Gardiner made application for a conditional purchase of 640 acres, which was confirmed by the Land Board on the 26th May, 1892. On the 16th April, 1896, the Land Board held an inquiry, and found, on the evidence of the selector (the only evidence which was before it), that all conditions, except that of payment of balance of instalments, had been duly complied with in respect of the said conditional purchase, and directed a certificate to that effect to be issued. On the 14th May, 1896, the Minister, in accordance with what were thought to be the provisions of section 59 of the Crown Lands Act of 1895, referred the matter to the Land Appeal Court, for the following reasons:—

That the Land Board had failed or neglected to discharge its duty, according to law, by deciding, on the selector's evidence alone, that the conditions of residence had been fulfilled, when it was apparent that the land was frequently under water, and it having transpired that the selector's wife and family resided elsewhere—the whole facts pointing to a mere perfunctory compliance with the residence condition. The Land Appeal Court decided to remit the case to the Land Board for further evidence, intimating, however, that it was not to be implied that the Court, on the evidence before it, considered that the Land Board had failed or neglected to duly discharge its duty according to law.

Subsequently the Land Appeal Court was required to state a case for the decision of the Supreme Court, the principal questions for decision being:

- 1st. Whether, under the circumstances above set forth, the Land Appeal Court had any jurisdiction to remit the case to the Land Board.
- 2nd. Whether the document under the Minister's hand, dated 14th May, 1896, was a reference under section 59 of the Crown Lands Act of 1895.

The Supreme Court was of opinion that the Minister might, under section 7 of the Crown Lands Act of 1889, have appealed against the granting of the certificate of conformity which the Land Board directed to issue on the 16th April, 1896, but held that the provisions of section 59 were not intended to apply to such a case as this, inasmuch as the Land Board having decided on the only evidence before it, the charge of failure or neglect to discharge its duty according to law (which the Supreme Court regarded as a charge of a serious nature) could not be sustained. (*N.S.W.L.R.*, Vol. xviii, p. 182.)

In re J. R. Jones.—In November, 1878, J. R. Jones acquired a conditional purchase of 200 acres, No. 78-125; in March, 1883, he obtained an additional conditional purchase of 394½ acres, No. 83-18; and certificates of fulfilment of all conditions except payment of balance of purchase money were subsequently issued in respect of these conditional purchases.

On the 30th April, 1891, the said J. R. Jones applied for an additional conditional purchase of 45½ acres, No. 91-32, Bingara, in virtue of the before-mentioned conditional purchases, and on the same date applied for a conditional lease of 102 acres

acres in virtue of the additional conditional purchase No. 91-32. These applications of the 30th April, 1891, were duly confirmed by the Land Board on the 22nd December, 1891. On the 16th March, 1892, application was made, and permission obtained, under section 4 of 52 Vic. No. 7, to substitute other improvements in lieu of fencing on the said additional conditional purchase of $45\frac{1}{2}$ acres. On the 26th July, 1895, the Land Board held an inquiry as to whether the condition of improvements had been fulfilled on the said additional conditional purchase No. 91-32, and found (1st) that on the expiration of three years from the date of confirmation, improvements to the value of 9s. only had been effected on additional conditional purchase 91-32; to the value of £4 1s. 3d. on the conditional lease; and to the value of £212 10s. on conditional purchases 78-125 and 83-18; (2nd) that improvements to the value of £52 10s. (included in the above amount of £212 10s.) had been effected on conditional purchases 78-125 and 83-18 during the period of three years after the confirmation of additional conditional purchase 91-32. On these facts, and in view of the proviso in section 5 of 52 Vic. No. 7, that, in cases where substitution is granted, the land should be improved to the value of 6s. per acre within three years from date of confirmation, the Land Board referred to the Land Appeal Court the question whether the condition of improvements on additional conditional purchase 91-32 had been fulfilled. The Land Appeal Court decided (by majority) that the condition of improvements had not been fulfilled, inasmuch as the improvements in lieu of fencing had not been placed on that conditional purchase; but having regard to the importance of the decision as affecting a large number of cases, and to the fact that such decision was dissented from by one member of the Court, on its own motion stated the case for the opinion of the Supreme Court on the following points:—

- 1st. Whether, under the circumstances herein set out, the Land Appeal Court was right in holding that the condition of improvements had not been fulfilled in regard to additional conditional purchase 91-32.
- 2nd. Whether the Land Appeal Court was right in holding that when permission has been granted to substitute improvements in lieu of fencing on any conditional purchase, such improvements must be placed on that particular conditional purchase, and cannot be placed on any part of the holding.

Both questions were answered by the Supreme Court in the negative. (N.S.W. L.R., Vol. XVIII, p. 83.)

Nelson v. Lumby.—This was a special case stated by the Land Appeal Court of its own motion. It appeared from the special case that the Land Appeal Court heard the case; but, without giving any decision upon it, submitted certain points for the determination of the Full Court. The Court held that the case could not be entertained until the Land Appeal Court had itself given a decision in the matter. (N.S.W. L.R., Vol. XVIII, p. 180.)*

In re Rixon.—The question in this case was whether land within a population area could be set apart and become available for homestead selection under the Crown Lands Act of 1895, a doubt having arisen whether such land was not barred from homestead selection equally as from conditional purchase by sub-section 7 of section 21 of the Crown Lands Act of 1884.

The Land Appeal Court (to which the question was referred by the Local Land Board) was of opinion the land was not open to homestead selection, but the Supreme Court arrived at an opposite conclusion, holding that section 21 of the Act of 1884 is limited to conditional purchases. (N.S.W., W.N., vol. XIV, p. 37.)

Harrington v. Minister for Lands.—In this case certain lands comprised in a reserve from sale for access were, by notice in the *Gazette* of the 9th January, 1897, set apart (under sections 10 and 13 of the Crown Lands Act of 1895) for homestead selection. The notice set forth that the land would not be available for homestead selection until the 11th of March. On the day the notice appeared (*i.e.*, on the 9th of January) the reserve was revoked, and the assumption was, having regard to the provisions of section 102 of the Crown Lands Act of 1884, that the land could not be conditionally purchased under section 11 of the Act of 1895 during sixty days after the date of notice of revocation of the reserve. The

* The case itself has since been decided by the Supreme Court. W.N. XIV, p. 137.

The period of forty days within which the provisions of section 11 referred to may be availed of ran from the 9th of January, 1897, the date the lands were set apart, not from the 11th of March, the date the land was open to homestead selection. These forty days, and the sixty days given for the revocation of the reserve to mature, therefore, both commenced on one and the same date, so that the period limited by section 11 for making application for conditional purchase would expire before the revocation of the reserve was thought to take effect.

On the 11th of February (*i.e.*, during the forty days in question), J. Harrington made application for an additional conditional purchase. The Local Land Board disallowed his application, on the ground that it was made for land within a reserve before the expiry of sixty days from the date of notice of revocation of the reserve, and the Land Appeal Court, before which the case came on in appeal, upheld the Board's action.

On appeal to the Supreme Court, that Court reversed the Land Appeal Court's decision, holding that section 102 of the Act of 1884 is overridden by section 11 of the Act of 1895 so far as the latter section gives the right to make an additional conditional purchase within the forty days after the notification. (N.S.W. W.N., Vol. XIV, p. 87.)

In this case an appeal has been made to the Privy Council.

Pratt v. Goldsbrough, Mort, & Co.—The question in this case was, whether the waiver and reversal of forfeiture of a conditional lease subsequently to an application for an additional conditional purchase within that conditional lease rendered the additional conditional purchase valid, notwithstanding such additional conditional purchase was applied for at a time when forfeiture of the lease had already been incurred, and before either the waiver or reversal of forfeiture had been approved. In other words, whether the waiver and reversal of forfeiture had a retrospective effect, so as to validate the additional conditional purchase which, when made, was clearly invalid, seeing that at the time it was applied for, forfeiture of the lease, in which it was taken up, had been incurred. The main facts are, that Goldsbrough, Mort, & Co. held a conditional lease, and in 1892 applied, under section 25 of the Crown Lands Act of 1889 for an additional conditional purchase of land comprised within it. In February, 1893, the Land Board, after inquiry, found that, as the fencing condition attached to the lease had not been fulfilled, forfeiture of the lease had been incurred. In December, 1893, the Minister provisionally waived the forfeiture, and in March, 1894, waived it absolutely.

The Supreme Court held that the waiver and reversal did not validate the additional conditional purchase application made in 1892, but that it gave the land back to the persons incurring the forfeiture, and enabled a future additional conditional purchase application to be made. (N.S.W. L.R., Vol. XVIII, p. 187.)

Coffey v. Battye.—In 1889 Battye made a conditional purchase, and in virtue thereof, in 1893, he made two additional conditional purchases, to which a condition of residence was attached. In 1894, whilst possessed of both the original and the additional conditional purchases he mortgaged the original. Under this mortgage Coffey claimed the original, and brought an action of ejectment. This case involved an interpretation of the provisions of section 117 of the Crown Lands Act of 1884. That section provides that conditional and additional conditional purchases may be transferred after the condition of residence has been fulfilled, but that original conditional purchases and additional conditional purchases shall not be transferred separately until all the conditions applicable to the whole area, except that of payment of balance of purchase money or of instalments thereof, shall have been duly fulfilled.

In this case the original conditional purchase was transferred separately from the additional conditional purchases, and before the conditions attached to the latter purchases had been fulfilled. The Court held that, by reason of the operation of section 117, the legal estate was not vested in the plaintiff, but remained in the defendant; that Battye made and Coffey accepted a transfer, which the Act says cannot be made; and that nothing passed by the transfer. (N.S.W. L.R., Vol. XVIII, p. 263.)

Kiddle v. The Minister for Lands.—On the 1st February, 1894, William Kiddle applied for an additional conditional purchase of 223 acres by virtue of a conditional purchase made by James Duff on which the balance of purchase money had been paid and the deed of grant of which had issued. In June, 1894, the application was disallowed by the Local Land Board on the ground that the basal conditional purchase had been converted into a freehold prior to the date of the application. In July, 1894, Kiddle appealed to the Land Appeal Court against such disallowance. On the 1st June, 1895, the Crown Lands Act of 1895 came into force. In September, 1896, the appeal came before the Land Appeal Court, which Court decided, in December, 1896, that the provisions of section 31 of the Crown Lands Act of 1895 did not apply to the application in question. A special case was thereupon stated for the decision of the Supreme Court on the following points:—

- 1st. Whether an accrued right within the meaning of Section 2 of the Crown Lands Act of 1884 was in Kiddle to make the additional conditional purchase.
- 2nd. Whether, on the 1st February, 1894, Kiddle was the holder of a conditional purchase within the meaning of section 42 of the Crown Lands Act of 1884, so as to enable him to make the additional conditional purchase applied for on that date.
- 3rd. Whether the Land Appeal Court was right in holding that the provisions of section 31 of the Crown Lands Act of 1895 did not apply to Kiddle's application.
- 4th. Whether Kiddle was entitled to make the additional conditional purchase.

The principal question for decision was whether section 31 of the Crown Lands Act of 1895 (which makes provision for the making of future applications in right of conditional purchases converted into freeholds, and which validates additional conditional purchases confirmed prior to the passing of that Act) validated Kiddle's application of the 1st February, 1894. The Supreme Court held that the section in question did not operate to revive such an application as that of Kiddle's, which was invalid when made. (N.S.W. L.R., Vol. xviii, p. 335.)

Dennis v. Cooper.—In January, 1896, John Dennis being at the time the holder of 1,280 acres of land in the Eastern Division (320 acres conditional purchase and 960 acres conditional lease) applied for a homestead selection of 640 acres situated in the Central Division. The Land Board disallowed the application for the homestead selection on the ground that Dennis was disqualified by being already the owner of 1,280 acres. From this decision Dennis appealed to the Land Appeal Court, on the ground that there is no maximum area fixed by law for a homestead selection. The Land Appeal Court dismissed the appeal, holding that a maximum area was prescribed by law for a homestead selection, and that such maximum area was exceeded by the appellant's application. Against this decision Dennis appealed to the Supreme Court, which Court upheld the decision of the Land Appeal Court, and ruled that, although section 13 subsection (1) of the Crown Lands Act of 1895 does not fix the maximum area in such precise terms as are used with reference to ordinary selections, the effect is the same, as no block is to exceed 1,280 acres, and under section 14 of that Act a person cannot apply for more than one block, and then only if he is not disqualified by section 41 of the Act of 1895, which (by providing that the owner of an area of land which, added to the area of the holding applied for, will exceed the maximum permitted by law to the class of holding applied for) rendered Dennis incompetent to apply for a homestead selection, the area of which, added to the land he held already, would exceed 1,280 acres. (N.S.W. W.N., Vol. xiv, p. 185.)

Minister for Lands v. Thorley.—Thorley took up a conditional purchase in 1890. In 1893 the Minister, in pursuance of section 20, Crown Lands Act, 1884, referred to the Local Land Board the question whether any statements in the declaration lodged by Thorley with his application, having reference to his intention to use the land solely for his own use and benefit, were false. After inquiry (at which Thorley gave evidence and called witnesses) the Local Land Board were unable to find that any of the said statements were false within the meaning of section 26.

In

In 1896 the Minister again sent the case to the Land Board, in pursuance of the 20th section of the Crown Lands Act of 1884, for inquiry as to whether any evidence given on oath before the Land Board in 1893 was given for the purpose of misleading any officer, authority, or person, or wilfully misrepresented facts within the meaning of section 135 of the Act of 1884, and whether, by reason thereof, the conditional purchase was forfeitable.

In view of the inquiry held in 1893, the Land Board referred the matter to the Land Appeal Court for decision as to whether they were entitled to proceed with the second inquiry directed by the Minister. The Land Appeal Court decided that the Board was not entitled to proceed with the reference, and the Minister for Lands then appealed against the decision. The Supreme Court held that the Minister might, in 1893, have referred the case for inquiry under section 135; but inasmuch as he saw fit to refer it under section 20 of the Crown Lands Act of 1884—under which section the decision of the Land Board is final unless appealed from—he is bound by the decision arrived at by the Board. (N.S.W. L.R., Vol. xviii, page 328.)

Minister for Lands v. Colless.—In this case the land in question formed part of a leasehold area, the pastoral lease of which expired on the 10th July, 1895. On the 4th of that month a preferential occupation license of the said leasehold area was granted under the provisions of section 4 of the Crown Lands Act of 1895; but the leasehold area was not declared to be a resumed area, in terms of section 5 of that Act, until the 25th January, 1896. The land, after being subdivided into farms, was by notification in the *Gazette* of 18th December, 1895, set apart for settlement lease to become available on the 30th January, 1896. Part of one of the farms was, by virtue of the provisions of section 11 of the Act of 1895, applied for by H. E. Colless as a conditional lease on the 23rd January, 1896, and on the 30th of the same month J. M. Gordon made application under section 24 of the Crown Lands Act of 1895 for a settlement lease of the same farm. The forty-days period prescribed by section 11 of the Act of 1895 expired on the 27th January, 1896, and the last Thursday within this period expired on the 23rd January, the day Colless applied. He therefore applied before the leasehold area was declared a resumed area; but had he waited until after this event, he would not have been within the forty-days period referred to. There being conflicting applications for a settlement lease of the farm, the Crown Land Agent held a ballot to determine the priority of the several applications received, and he included in the ballot Colless's application, but under protest by Colless. The result of the ballot was that Gordon's application came out No. 1, and Colless's application No. 2.

When the applications came before the Land Board, Gordon's application for a settlement lease was confirmed, and Colless's application was disallowed, as the land applied for was not available. From this decision Colless appealed to the Land Appeal Court, which Court sustained the appeal, and directed the Local Land Board to disallow Gordon's application, and to confirm Colless's application. The Minister for Lands then required the Land Appeal Court to state and submit the case for the decision of the Supreme Court, the principal points for decision being:—

- 1st. Whether the land applied for by Colless as a conditional lease was available for the purposes of that application when made.
- 2nd. Whether, under the circumstances set forth, the application was a valid one, and constituted a continuing offer capable of subsequent acceptance.
- 3rd. Whether Colless's application was entitled to priority over Gordon's.

The Supreme Court held that section 11 of the Act of 1895 did not confer any preferent right on Colless, but merely a concurrent right with applicants for a settlement lease, and that after the forty days any right he might have had went for ever; and although the pastoral lease expired on the 10th July, 1895, and a preferential occupation license was granted, yet in view of the provisions of section 5 of the Crown Lands Act of 1895, the land still continued to be leasehold area, and as such was not available for conditional lease until the 25th January, 1896, when it was notified as a resumed area.

Colless's application, therefore, having been lodged on the 23rd January, or two days before the land became a resumed area, and therefore before it became available for conditional lease, was invalid. (N.S.W. L.R., Vol. xviii, p. 91.)

At the instance of Colless this case has been referred to the Privy Council for decision.

Information

Information Bureau.

This branch has now entered upon the third year of its existence, and, judging from the volume of work that has been transacted during 1897 and preceding years, there is very little reason to question its usefulness or popularity, and its recognition by the general public as a distributing centre from which all information regarding Crown lands emanates, may now be regarded as an established fact.

During 1897 the general correspondence has been considerable. In 1896, letters to the number of 1,976 were written, and in 1897 a practically identical record was reached, the number despatched during the year amounting to 1,965. It may be as well to state that correspondence received in this branch is always treated as of an urgent nature, and promptness in answering is recognised as not only desirable, but absolutely necessary. Information has been regularly supplied to the Press, giving particulars regarding lands that are on the point of being thrown open for homestead selection, settlement, or improvement lease.

The publication of two editions of the "Homestead Selection and Settlement Lease Pamphlet" has also been attended to during the year. These pamphlets contain full particulars of the various lands that have been thrown open, and that are still available for homestead selection and settlement lease. It is found that this publication is in considerable demand, now that its existence is becoming more widely known, and the public generally, both in this and the neighbouring Colonies, evidently appreciate the advantages it offers.

The Lands Department Weekly Gazette has now become a recognised factor in providing intending settlers with early information regarding Crown lands that are being made available under the several tenures resulting from the operations of the present Land Laws.

The advantages of this special issue are not, however, confined to the general public, as for departmental purposes alone the avoidance of all the extraneous matter which appears in the ordinary *Gazette* is of some moment, and experience has shown that the facilities afforded by the fact of all notifications issued by this department being retained in a compact form readily available for reference are considerable.

At the close of 1897 the regular subscribers to this issue were 108 in number, irrespective of many who only subscribe for short periods until they find particulars of subdivisions suited to their requirements.

During the year a pamphlet entitled "Synopsis of the Laws relating to Crown Lands" has been published, together with a descriptive account of the characteristics and resources of the Colony generally, as divided into the several Land Board Districts. The various publications issued by the Bureau have proved of great assistance in many ways, more especially perhaps, in corresponding with people whose knowledge of the conditions under which they can settle on Crown lands is more or less limited.

Inquiry Branch.—The advantages which this division of the Information Bureau offers to the general public are many in number, and it is gratifying to note that two other departments have seen fit to establish similar branches. Questions of all descriptions relating to the general business of the department are answered here. Searches against conditional purchases and leases are carried out at the instance of solicitors, Banks, private land agents, and financial companies, who wish to be assured that no forfeiture is impending and that no other defects exist which might in any way be prejudicial to the title. A small fee is charged for information of this kind, which produced in 1897 a revenue of £358 8s. 6d., as compared with the amount of £326 12s. 3d., collected in 1896. The number of individual searches, which in 1896 amounted to 13,000, reached a total of 14,320 during 1897. Inquiry memos. to the number of 5,000 were lodged and answered, in addition to a large number of personal inquiries to which verbal answers were given.

The work of the branch as a whole shows a decided increase over that of the previous year.

The Map Sales Branch.—The work in this division of the Bureau has proceeded satisfactorily during the year, and steps have been taken to simplify the system of records hitherto used in connection with the issue and receipt of lithographs. In order to place matters on a satisfactory basis it was decided to take stock, and this work is proceeding at the present time. During 1897, 46,030 lithographs were received into

into stock, and 31,075 issued to Crown Land Agents, District Survey Offices, and to other departments, including also those required by the various branches in the head office. The receipts during the preceding year, 1896, amounted to 44,739 lithographs, and the issues to 37,314. Maps are also sold to the public, and exclusive of those disposed of by Crown Lands Agents the number sold during 1897 amounted to 3,340, producing a revenue of £228 19s. 1d. The sales of the previous year amounted to 3,449 lithographs, the receipts reaching the sum of £265 6s. 6d.

Rabbit Branch.

It is very satisfactory to report that during the year 1897 there was a remarkable scarcity of rabbits in many districts that had previously been the most thickly infested. The reason is not far to seek, for with the exception of portion of the Land Board District of Wagga Wagga, where the pest admittedly is steadily on the increase, there can be no question that the almost unbroken succession of long periods of drought has proved the most important of all hitherto known factors in the work of rabbit extermination.

The work of erecting a rabbit-proof fence from Mungindi, on the Queensland Border, to the Namoi River, at Bugilbone, a distance of about 115 miles, which had been commenced during the previous year, was completed in March, 1897, at a net cost of £6,299 14s. 4d., or £54 14s. 3½d. per mile.

The proposal to erect this line of barrier fencing emanated from the Queensland Government, and before commencing operations it was agreed that the expense of the undertaking should be equally divided between the two Colonies.

In accordance with this agreement, a first instalment of £1,918 8s. 8d. has already been paid by the Queensland Government in satisfaction of a claim for that amount, leaving a balance of £1,231 8s. 6d. still to be adjusted.

Suggestions have been made for the continuation of this fence, on the share and share alike principle, from its termination at Bugilbone, either in an easterly direction to Narrabri, or southerly to the rabbit-proof fence on the boundary of Wingadee pastoral holding, and the matter is now under consideration. The erection of the latter line of fencing, and the bridging of a gap which separates the netting fences on the boundaries of Goorianawa and Goolhi pastoral holdings, would bring into existence an additional barrier, some hundreds of miles in length, which would protect nearly the whole of the counties of White and Baradine, including the well-known Pilliga Scrub, and practically render the greater part of the north-eastern portion of the Colony free from the inroads of the pest.

In consequence of the great diversity of opinion that prevailed respecting the Rabbit Destruction Bill, introduced into Parliament in August, 1896, and which embodied the recommendations of the Rabbit Conference held in April of the preceding year, a number of delegates were invited to attend a conference in Sydney for the purpose of discussing the provisions of the Bill, with a view to making fresh recommendations on which to base an amended Bill.

The sitting lasted from the 9th to the 17th March, and the deliberations of the delegates resulted in the presentation of an amended Bill, which was submitted to the Minister for approval.

After careful criticism of the proposed measure, it was apparent that the recommendations of the conference could not be adopted in their entirety, and that certain alterations must be substituted.

A fresh Bill was, therefore, prepared, and, together with a short Bill to amend the "Diseases in Sheep Acts Amendment Act of 1878," which the constitution of the proposed Rabbit Boards rendered necessary, was read the first time on the 13th of May last. Representations have been received from various quarters urging that an opportunity may be found for bringing them forward again before the dissolution of the present Parliament.

The salient features of the new Rabbit Bill are the formation of rabbit districts, conterminous with the existing sheep districts; the appointment of Rabbit Boards for such districts, with power to levy rates for administrative purposes; the construction, maintenance, and repair of barrier fences by the Rabbit Boards; the

supply by the Crown to Rabbit Boards and private owners of the necessary material for the erection of rabbit-proof fences and the destruction of rabbits; and the acceptance by the Crown of its responsibility for the destruction of rabbits on public lands.

Advantage was taken of the presence of the delegates to hold a second conference, which was convened with the object of dealing with the question of noxious weeds.

A Draft Bill was submitted, and the conference asked to discuss its provisions, with a view to making fresh recommendations on which to base an amended Bill. The conference sat on the 16th, 17th, 18th, and 19th of March, and passed a series of resolutions, which were submitted to the Minister for consideration, and these, after certain modifications and amendments, were embodied in a fresh Bill, which was introduced into Parliament, and passed its first reading on the 12th May last.

During the period under review the number of proponents of schemes for the extermination of rabbits has been less than in any preceding year, only twenty-four correspondents having favoured the department with an exposition of their projects for the accomplishment of that object, and securing the long-ago withdrawn reward of £25,000. It was found, however, that none of the methods propounded possessed any special merit that would entitle them to more than passing consideration.

Owing to the successful results that had attended the enforced destruction of rabbits in a limited portion of the counties of Urana and Denison, it was decided, at the earnest solicitation of the bulk of the resident landowners, to extend the operation of the compulsory clauses of the Rabbit Act to the whole of the sheep district of Urana, and to Boree Creek pastoral holding; and a proclamation was accordingly issued on the 23rd February, 1897, giving the petitioners the relief they sought.

The inauguration of this policy would appear to be fully warranted by the benefits that have accrued.

Various requests to extend the compulsory provisions of the Rabbit Act to other localities have been received during the year; but owing to the fact of their not being of a sufficiently representative character, it was not considered expedient to comply with them.

The area of the rabbit-infested districts was extended during the year by the inclusion of the resumed area of Bygaloree pastoral holding and the population area of Deniliquin, though the consideration of several applications having such extensions in view has been postponed until it can be shown that the majority of the landowners interested are unanimous in the desire to have their district so declared.

The aggregate number of miles of rabbit-proof fencing erected in the Colony, as reported to the Department, has increased to 17,280, though it is believed that many more miles have been erected of which there is no official record.

Five applications under the 41st section of the Rabbit Act for permission to keep live rabbits were received from various persons, particulars of which are given below:—

Name.	Place.	Period.
Hugh O'Neill... ..	Agricultural Society's Grounds, Moore Park	7 days.
J. McGarvie Smith	Denison-street, Woollahra	12 months.
Eugene Rougier, M.D.	The Hermitage, Double Bay	12 "
Sydney Jamieson, M.B.	Pathological Department, Sydney Hospital	12 "
Charles Morrit	117, Phillip-street and Palace Theatre	12 "

Animals Infectious Diseases Act.

Fresh licenses, under the 6th and 7th sections of this Act, have been granted to several persons who had previously availed themselves of its benefits; the only new applicants being Dr. W. H. Goode, of the Medical School of the Sydney University, and Dr. Sydney Jamieson, of the Pathological Department of the Sydney Hospital.

Until

Until a comparatively recent date, few were aware of the wide-spread ramifications of the scourge known as anthrax, or Cumberland Disease, and it is to the firm of Messrs. McGarvie Smith and Gunn that the Department is largely indebted for much useful information on the subject. The members of that firm, who, with their assistants, are licensees under the Act, have reported the successful inoculation of no less than $2\frac{1}{4}$ millions of sheep during the past three years, the vaccine which is used for the operation being manufactured and distributed by them in accordance with the conditions specified in their licenses.

Labour Settlements.

Wilberforce.—The administration of the affairs of the Labour Settlement at this place is vested in a Board of Control, composed of residents of the district and members of the Settlement; and as it has been considered that that body is quite competent to manage its own business, the relations between it and the Department are not of a very frequent or intimate character.

Owing to desertions, the removal of unsuitable settlers, and other causes, the Settlement, which originally consisted of 37 enrolled members, is now reduced to 16 members, two of whom are unmarried men. A visit of inspection paid to the Settlement by an officer of this department during the early part of this year, disclosed that, although many of these people had been subjected to considerable hardship, and even privation, owing mainly to the losses occasioned by unfavourable seasons, they had yet managed, by obtaining occasional employment elsewhere, to earn a living, and did not despair, as their land improved and their orchards commenced to bear, of eventually being able to support themselves and their families without having to supplement their income by recourse to outside employment.

Bega.—Established as it was under far more favourable auspices than its contemporaries at Wilberforce and Pitt Town, the success of the Bega Labour Settlement may now be regarded as assured. In common with other occupiers of the land in many parts of the Colony, its members have had to contend against unpropitious seasons, and the difficulties that beset the pioneer; but these would appear to have been surmounted, and the indications of approaching prosperity cannot be misunderstood.

The community now consists of 29 families, 9 additional members having been enrolled in the course of the year. The new settlers are likely to prove a valuable acquisition to the Settlement, as the reports that have been received respecting their eligibility as settlers are of an eminently satisfactory nature. The improvement of the settlement area by the construction of roads and culverts is still vigorously carried out by communal labour, and the acquisition of dairy stock by many of the settlers, in conjunction with the establishment of a creamery on the estate, should no doubt contribute materially towards the prosperous development of the dairying industry in this district.

Expenditure.

The total expenditure for all services in 1897 amounted to £361,345 16s. 1d., made up as follows:—For services paid from Consolidated Revenue Votes, &c., £286,083 7s. 8d.; for services paid from Loan Votes, £74,332 17s. 6d.; and for the Church and School Lands Branch, £929 10s. 11d.; the total expenditure in 1896 being £341,049 6s. 11d. The expenditure in 1897, therefore, shows an increase of £20,296 9s. 2d. Taking, however, the expenses of the department that were purely in connection with the administration of the Land Laws, which amounted in 1897 to £275,077 16s. 6d., a decrease of £23,446 3s. 10d., is the result as compared with 1896; salaries being responsible for £8,852 18s. and Contingencies £14,593 5s. 10d. Respecting the latter, expenditure under the different heads of service shows a general decrease throughout, the only substantial increase apparent being for survey fees. Under this head, £3,097 12s. 6d. more was paid during the year than in 1896, consequent upon the increased subdivision of lands to meet demands for settlement under the Crown Lands Act of 1895.

With regard to the increase in the total expenditure, as shown above, a reference to the comparative statement, Schedule III, will show that the erection of Local Land Board and District Survey Offices, scrub clearing, Terragong Swamp drainage,

drainage, forest thinning, and advances to the Hay Irrigation trust (all paid out of Loan Votes), were responsible for a total expenditure of £74,332 17s. 6d., as against £13,873 11s. 4d. for the previous year—an increase of £60,459 6s. 2d.

The transfer of the Forest Branch from the Department of Mines and Agriculture, as from the 1st October, is responsible for an increase to the staff of twenty-three officers, and an annual expenditure of £2,783 for salaries. Contingencies in connection with the administration amount to an estimated annual expenditure of about £1,000. Forest-thinning, paid from Loans, for the three months ended the 31st December, cost £3,331 3s. 7d.

With regard to Crown Land Agents, all with the exception of five—receiving salaries amounting in the aggregate to £1,565—were graded by the Public Service Board as officers of the Department of Justice as from the 1st July, 1896, the reason being that their duties were combined with those of Clerks of Petty Sessions; but on the 1st July, 1897, twenty-eight were retransferred to the control of this Department, in accordance with an arrangement previously entered into, on the principle that each Department should be charged as near as possible with the value of the services rendered to it by officers holding the dual positions.

The number of accounts registered during the year was 9,418, and the separate payments by cheques drawn in the Account Branch numbered 16,132.

Schedules II to VII and XCVIII show respectively expenditure for all services, comparative statement of expenditure for 1896 and 1897, salaries paid in the year, strength of the staff, and the annual rate of salaries as on the 31st December, 1896 and 1897; travelling expenses and fees in connection with Local Land Board meetings; revenue and expenditure for the years 1886 to 1897, showing the percentage of the latter to revenue, and cost of measuring classified areas by licensed surveyors.

Revenue.

The revenue and receipts for the year, particulars of which are shown on Schedule I, amounted to £1,891,907, being an increase of £9,050 on total receipts in 1896, and in excess of the estimate in Ways and Means.

Inspection of Accounts.

During the year the accounts were subjected to an independent audit by an Inspector of Public Accounts.

Land Appeal Court.

During the year 1897 the Court heard and disposed of 544 cases, comprising 353 appeals and 191 references. Of these cases 366 were dealt with in Sydney, and 178 at the various sittings in the country. The Court held sittings in Sydney on thirteen different occasions, and in the country as follows:—Bourke, 1; Dubbo, 2; Tamworth, 2; Wagga Wagga, 3.

During 1897 the Land Appeal Court was asked to state special cases for the decision of the Supreme Court in twenty-two instances, two of which were struck out for non-compliance with the Rules of the Court. In two other applications the Court declined to state a case, and one of these (*In re Campbell*, L.C.C. 4,733) is now the subject of an application for mandamus to the Supreme Court, for which a *rule nisi* has been obtained, but the rule has not yet been made absolute.

Of the remaining eighteen, ten (10) were duly stated and forwarded to the Prothonotary.

The following are the ten cases referred to:—

3,186	<i>re</i> Wm. Kiddle.
3,731	„ J. R. Jones.
4,284	„ James Wilson.
4,462	„ Kerwin Rixon.
4,583	„ James Nelson.
4,583	„ Minister for Lands.
4,597	„ A. G. Thorley.
4,828	„ A. P. Stair.
4,830 _A	„ J. Harrington.
4,862	„ W. Chapman.

In

In cases 3,186 and 4,597 the Land Appeal Court's decision was confirmed, and in cases 3,731, 4,462, and 4,830A it was reversed. (It is understood that leave has been granted to the Minister for Lands to appeal to Her Majesty's Privy Council against the decision of the Full Court in case 4,830A.) Of the remaining cases, No. 4,284 (Mercadool) has been returned to the Land Appeal Court for re-statement, and cases 4,583 (2), 4,828, and 4,862 are still before the Supreme Court.

The following cases remain with the Land Appeal Court for final settlement preparatory to sending on to the Prothonotary:—

4,757A *re* A. A. Sampson.
 4,831 ,, J. Willmott.
 4,864 ,, Trida R.A.
 4,865 ,, Coan Downs L.A.
 4,866 ,, Wyadra L.A.
 4,867 ,, Tibora L.A.
 4,868 ,, Willandra L.A.

Case 4,757A was allowed to stand over pending an appeal to the Supreme Court in *Greene v. Hargrave*; but as no appeal has been made in that case the question of stating a case for the decision of the Supreme Court in Sampson's case will again be brought forward for consideration.

One other case, No. 4,907, *re* Rigney, stands over pending action of the Supreme Court on the mandamus applied for in Campbell's case, No. 4,733.

Forest Branch.

The report on this Branch, which is now attached to the Department of Lands, will be found for the half-yearly period ending 30th June, 1897, under the Annual Report for that year of the Department of Mines and Agriculture, the Forests administration having been vested in the Secretary for Lands from the 1st of October, 1897.

This change was effected after inquiry had been made by, and upon the recommendation of, the Public Service Board.

The increased activity in coastal timber operations continues, and, as most of the mills are working full time, there has been no lack of employment for timber-getters. In some districts the supply of matured timbers in the vicinity of shipping ports has been cut out, and proprietors of saw mills have been compelled to seek supply from back lands; but the increased distance of transport, and the difficulties of haulage, have been met by the construction of tram-lines, some of which now extend back for distances of from 10 to 20 miles. A large proportion of the coastal timber is now cut to export orders, and there is little doubt that this trade is a growing one.

The difficulties of adequate supervision of forest operations referred to in last Report have not yet been entirely overcome; but steps are being taken to strengthen it wherever experience in working shows the necessity. In this connection it may be remarked that, although the number of royalty-permits issued for the half year under report is nearly double that for the preceding period, the quantity of timber felled is returned some 820,000 superficial feet less, the shortage in royalty thereon amounting to nearly £900.

The return of prosecutions for illegal offences in comparison with the preceding half year, are as follows, viz.: half year ending 30 June, 1897, 71 prosecutions, 63 convictions, and £65 amount of penalties, with 42 seizures (39 being upheld); whilst for the half year in question there were 78 prosecutions, 71 convictions, £84 2s. 6d. amount of penalties, with 76 seizures (67 being upheld). The sales of material confiscated realised £250 12s.

Office Work and Records.—In administration, attention was devoted to the question of royalty charges with the object of applying them in a more equitable and uniform manner, and a scheme for effecting this was proposed, the basis being a fixed maximum and minimum rate for each class of timber according to its commercial value. Where districts happened to be at a disadvantage through inaccessibility, inferiority of timber, or difficulties of haulage, rates below the maximum would be charged. As, however, a Forestry Bill is in contemplation, it was thought expedient to postpone the matter pending new legislation. A

A careful revision has also been made of the quarry lands of the State and reports have been obtained bearing upon the character and quality of materials contained therein with a view to their being classed for operation and allotted a special supervision. The distribution of plans and information to issuers of licenses and the Police Force, specially referred to in last report has been continued; and besides assisting supervision, this work has afforded convenience to the public in ascertaining locally the classification and rates for operation allotted to forest areas.

Museum.—The arrangement and conduct of the Museum, including the receipt and classification of timber and herbarium specimens has been attended to in an efficient manner, and the exhibits appear to be appreciated by the public.

The following table indicates the extent of distribution of samples from: 1st July to 31st December, 1897:—

Description of Samples.	Local Distribution.	London.	Germany.	India.	Totals.
General Specimens	340	48	28	28	444
Paving Blocks (new)	25	6	6	7	44
Paving Blocks (old)	13	6	6	7	32
	378	60	40	42	520

Forest Improvement—Planting and Thinning.—As previously stated, planting operations for the period included only an experimental plot of silky-oak and sugar-gums planted on Forest Reserve 1,833 county of Urana. In carrying out this experiment, a natural clearing in pine forest was selected and enclosed with wire netting, the site being capable of extension if desired. The seedlings planted out therein consisted of 944 silky-oak (*Grevillia robusta*), 6 sugar-gum (*Eucalyptus corynocalyx*), 12 ironbark (*Eucalyptus siderophloia*), 6 Californian Cypress (*Cupressus macrocarpa*), 12 ironbark (*Eucalyptus paniculata*) 12 pine (*Pinus contorta*), a total of 992 plants, at a cost of £15, the main object of the experiment being to test the capacity and value of silky-oak as a timber-tree in the drier portions of the Colony.

Thinning operations have been confined to the Murray River red-gum and to pine forests in the vicinity of Narrandera, small parties of men on day rates, and under competent overseers, having been employed on this work in each district. Details of the extent and cost of work performed are supplied in the following table, the total expenditure for the period being £4,895 19s. 8d.

MURRAY RIVER DISTRICT—(Red-gum Forests).

Forest.	Number of Reserve and County.	Area improved.	Average cost per acre.	Total cost.	Remarks
Millewa ...	3,265, Townsend	acres. 1,000 5,000	(Estimated) 15s. " 5s. 11d.	£2,455 14 8	Thinned and cleaned up; very heavy work. Second thinning and cleaned up. Thinnings burnt off. Second thinning and cleaned up.
Gulpa Island	3,263, "	250 750	" 0s. 3d. " 5s. 11d.		

NARRANDERA DISTRICT—(Pine Forests).

Morundah ...	1,833, Urana ...	10,480	3s. 7d.	£1,917 0 0	Thinned and stacked for burning.
Gaurnain ...	2,652, Bourke...	10,900	} (Estimated) 9d.	523 5 0	Suckered, burnt off, and cleaned up.
Gillenbah ...	1,890, Mitchell	3,000			

Total expenditure, £4,895 19s. 8d.

Gosford State Forest Nursery.—With the small staff available at this establishment, viz., the foreman and one labourer, some difficulty has been experienced in keeping the Nursery in order. In ordinary work 2,000 young trees were planted out in beds from cuttings and seedlings, and 17,265 plants were distributed for the half year, particulars of distribution being as follows:—

To plantations, artesian bores, and experimental farms ...	8,700
To public bodies, charitable institutions, &c. ...	5,230
To farmers, settlers, &c., as trees for shade and shelter ...	3,335

Total 17,265

The

The expenditure has been kept down to the lowest possible limit compatible with efficiency in working, the cost for the period being for salaries, wages, and incidental expenses £203 5s. 5d. The stock of plants at the Nursery, including all varieties, on 31st December, 1897, amounted to 88,610.

Revenue and Expenditure.—The revenue for the first half of the year 1897 will be found, on reference to the prior report, to be £5,013 13s., and for the latter half, £3,746 12s. 4d., so that the total revenue for the year is £8,760 5s. 4d., and a difference of £1,267 0s. 8d. is indicated between the collections for the first and last half years of 1897. For details of revenue received during the half year ended 31st December, 1897, see Schedule XCIX.

Class and Area of Forest Reserves.—On the 31st December, 1897, the total area of reserved forest land was 5,610,184 acres. These reserves are divided into three classes—A, B and C, the two first being under fixed license fees, and the latter under license fee with royalty on the quantity of timber felled. The totals of the areas under each class are as follows:—

Class A	2,786,729	acres.
" B	154,583	"
" C	2,668,872	"
Total	5,610,184	"

On the same date the areas exempted from the operation of licenses were as follows:—

- (1.) From the operation of ordinary licenses 772,882 acres of Crown land not embraced within forest reserves.
- (2.) From the operation of all licenses and permits (closed areas) 50,567 acres, being principally special lands comprised within forest and other reserves.

By comparison with the figures given in the preceding report it is found that the total area of land reserved for forestry has been increased by 13,663 acres during the half year under report.

Prickly-pear Extermination.—Under the provisions of the Prickly-pear Act, 31,626 acres of Crown land were held under lease on the 31st December, 1897, yielding an annual rental of £439 7s. 7d., or, roughly, £8 $\frac{3}{4}$ per section of 640 acres.

The transactions in regard to these leases must be considered as very satisfactory, inasmuch as the spread of the pest is checked, whilst at the same time a fair rental for the area leased is obtained. Failure to eradicate the pear or to keep the land clear of same involves forfeiture of lease. In the settled districts, the work of eradication by private owners has been enforced, with favourable results, but in the outlying districts, particularly in the north-west, the work of destruction is at a standstill, and it is feared the pest is spreading unchecked. In districts such as this the want of proper supervision, the incompleteness of the Act in some respects, and the fact that the State makes no provision for the extinction of the pear on Crown lands, add greatly to the difficulties of dealing with the pest. The Crown lands referred to consist principally of travelling stock and camping reserves. As the leasing of these reserves for lengthened periods is against the interests of travelling stock, the problem of dealing with them is a difficult one, especially as the cost of clearing the prickly-pear upon many of them would be enormous even at the present time.

Botanical.—Reports were issued on the Cork Oak, on the cultivation of the Quandong-tree, on the general question of Indiarubber-trees, on the poisonous nature of the seeds of white cedar, and also a revised edition of the report of the committee appointed to inquire into the merits of the timber of the tree known as Spotted Gum (*Eucalyptus maculata*), more particularly with reference to its value for wood-paving.

Forestry Prospects.—In view of the interests of forestry receiving wider consideration, and the support of special legislation, the following remarks in conclusion are submitted upon its present position, its prospects and requirements. The difficulties of timber production in this Colony with a semi-tropical climate are very

very slight compared with those experienced in frigid climates, for here, speaking generally, the natural regeneration in most of the indigenous species is so rapid and abundant that the labour and cost of replanting is barely necessary, and in insuring maturity of crops the less expensive treatment of destroying the superabundant is all that is called for—of course there are varieties which do not reproduce naturally and rapidly, and which require replanting and skilful handling before they will even establish, but these are the minimum in the list of our commercial timbers.

Viewing then these facts, the future supply of most of our indigenous hardwoods can be simply and economically assured by (1) providing sufficient land for them to reproduce upon, (2) by enacting stringent laws to prevent interference by man with crops whilst in the immature stages, and (3) by assisting them towards maturity by the least costly of all methods, viz. :—destroying the superabundant and useless timbers and providing air and light for the best and healthiest stocks which are to be allowed to remain and perfect themselves.

Of course, from an economic standpoint and to attain forest culture in its higher stages, the growth and production of many non-indigenous timbers which now figure largely in our import trades must also be attempted; but this will be entering upon ground that is entirely new and foreign to surrounding conditions; and, before approaching this phase of forestry, much work of an entirely experimental character must be effected.

Auction Sales.

Town Lands.—During the year 3,190 lots, comprising an area of 1,272 acres 1 rood 21 perches, were offered for sale, of which 722 lots, containing 289 acres 1 rood 20 perches, were sold, realising the sum of £10,327 13s. 1d., or an average of £35 13s. 9½d. per acre.

Suburban Lands.—1,330 lots, containing an area of 6,764 acres 1 rood 11½ perches were offered for sale, of which 358 lots, comprising 1,600 acres 3 roods 24 perches, were sold, realising £6,772 10s. 1d., or an average price of £4 4s. 7¼d. per acre.

Country Lands.—The country lots offered were 1,059 in number, representing an area of 47,038 acres 2 roods 36¼ perches. 423 lots containing 21,820 acres 1 rood 19½ perches were sold, realising £37,716 11s. 11d., or an average of £1 14s. 6¾d. per acre.

It will thus be seen that the total area of all classes offered for sale during 1897 amounted to 55,075 acres 1 rood 28¾ perches, comprised within 5,579 lots, and that the total area sold was 23,710 acres 2 roods 23½ perches, embracing 1,503 lots, the amount realised being £54,816 15s. 1d.

A comparison of the transactions under this class of sales for the years 1896 and 1897, is supplied in the following Schedule :—

		Year.	No. of lots offered.	Area offered.			No. of lots sold.	Area sold.			Amount realised.			Average price per acre.		
				a.	r.	p.		a.	r.	p.	£	s.	d.	£	s.	d.
Town	...	1896	1,447	601	1	25½	488	188	3	1½	5,739	11	0	30	8	1¾
		1897	3,190	1,272	1	21	722	289	1	20	10,327	13	1	35	13	9½
Suburban	...	1896	719	2,863	1	29¼	244	688	2	5	3,702	19	6	5	7	6¼
		1897	1,330	6,764	1	11½	358	1,600	3	24	6,772	10	1	4	4	7¼
Country	...	1896	971	29,084	2	1¼	325	11,214	3	6	25,751	8	10	2	5	11
		1897	1,059	47,038	2	36¼	423	21,820	1	19½	37,716	11	11	1	14	6¾

It will be observed that about 23 per cent. of town lands, 24 per cent. of suburban lands, and 46 per cent. of country lands offered, were sold, as compared with 31 per cent., 24 per cent., and 39 per cent. respectively, in 1896.

Though the revenue derived from auction sales during the past year (£54,816 15s. 1d.) is in excess of that obtained in 1896, yet it is a mere fraction of the amounts received from this source in former years. As recently as 1892 the auction sales represented a sum of £310,716. For particulars of areas offered and sold see Schedule XXXIII.

After

After Auction Sales.

During the year 588 applications were received, 68 were refused, while 536, comprising 688 lots, were granted.

An area of 1,744 acres 2 roods 17 perches was thus sold, the amount realised in connection therewith being £10,365 19s. 5d. The average prices obtained per acre were as follows:—For town lands, £23 3s. 0½d.; for suburban lands, £4 0s. 4½d.; and for country lands within population areas, £3 15s. 4¼d. Further details will be found in Schedule XXXIV.

Forfeiture of Auction Purchases.

For non-payment of the balance of the purchase money within the specified time 205 lots were forfeited during the year, representing an area of 404 acres 2 roods 28½ perches, and the deposits paid in connection therewith, amounting to £982 12s. 5d., were forfeited to the Crown. Further particulars will be found in Schedule XXXV.

In cases where purchasers of Crown land are entitled to the improvements existing thereon the value of the improvements is added to the upset price of the land, and, subsequently, remitted. In this way a sum of £419 8s. 7d. was refunded and other payments which had been made in excess, to the amount of £308 6s. 6d., were also refunded during the year.

Homestead Selections.

In view of the fact that the first areas set apart for homestead selection did not become available till September, 1895, the year 1897 may be looked upon as practically the second year of settlement under this class of holding, and it will be seen that the transactions for that year were of a very satisfactory nature.

From Schedule XXII it will be observed that 896 blocks, comprising an area of 367,290 acres 2 roods 15 perches, were applied for during the year.

Including the applications outstanding at the close of the year 1896, the Local Land Boards dealt with 996 homestead selections during 1897. Of these 697, for an area of 306,263 acres 2 roods 21 perches, were confirmed, whilst 299 were either disallowed or withdrawn. The number of applications outstanding at the end of the year was 207.

From Schedule XXIII it will be seen that the number of homestead selections confirmed to the 31st December, 1897, was 1,797, comprising an area of 631,106 acres 1 rood 3 perches; but as 63 of these, containing 10,692 acres and 15 perches, were forfeited during the year, the total number in existence at the close of the year, exclusive of the applications outstanding, was 1,734, representing an area of 620,414 acres.

From Schedule LXXXIII it will be observed that 1,025 blocks, containing an area of 477,668 acres 0 roods 39 perches, were notified during the year as being set apart for homestead selection.

During the year twenty-four applications were made to convert conditional purchases and conditional leases into homestead selections. These applications included 33 conditional purchases and 8 conditional leases, the area represented being 9,462 acres 2 roods. The total number of conditional purchases and conditional leases, so converted, since the Crown Lands Act of 1895 came into operation, to the 31st December, 1897, is 103, the area comprised being 22,437 acres 3 roods 30 perches. (For further details, *see* Schedule XXVI.)

Sixty-three homestead selections, containing an area of 10,692 acres and 15 perches, were forfeited during the year for non-fulfilment of the required conditions. (For particulars, *see* Schedule XXIV.)

From Schedule XXV, which gives full particulars regarding the notification and disposal of homestead selection areas since the Crown Lands Act of 1895 came into operation, it will be observed that up to the 31st December, 1897, 3,585 blocks, comprising an area of 1,074,679 acres 1 rood 36 perches, had been set apart for homestead selection. As, however, 368 blocks, containing 103,888 acres 1 rood 27 perches, had been reserved or did not become available during the year, the actual

area available for selection up to the end of the year was only 970,791 acres 0 roods 9½ perches, comprised within 3,217 blocks. Of this area, 1,919 blocks, embracing an area of 692,255 acres 2 roods 31 perches, were selected, or 71 per cent. of the area available. The capital value represented by the land selected is £995,206 5s. 9d. A synopsis of the transactions in each of the Land Board Districts is furnished in the appended summary taken from Schedule XXV :—

Land Board District.	Quantity of land available.			Area selected.			Area unselected on 31st December, 1897.			Capital value represented by land selected.					
	No. of Blocks.	Area.		No. of Blocks.	Area.		No. of Blocks.	Area.							
		a.	r.	p.		a.	r.	p.		a.	r.	p.	£	s.	d.
Armidale	162	33,482	3	34	131	31,991	2	4	31	6,491	1	30	38,923	18	0
Bourke	103	22,731	0	37	45	15,105	3	3	58	7,625	1	34	18,542	1	8
Dubbo	183	61,408	2	35	152	58,512	3	7	31	2,895	3	28	73,551	8	4
Forbes	138	100,982	3	0	137	100,959	0	0	1	23	3	0	107,045	9	8
Goulburn	217	41,161	1	24	155	26,956	1	21	62	14,205	0	3	42,619	4	9
Grafton	274	67,886	0	0	57	10,598	3	0	217	57,287	1	0	12,903	13	10
Hay	347	218,095	2	12	179	110,161	2	0	168	107,934	0	12	157,849	16	1
Maitland	367	61,994	1	27	176	28,893	3	10	191	33,100	2	17	35,418	14	4
Moree.....	23	24,957	1	20	16	16,790	1	20	7	8,167	0	0	17,857	14	5
Orange	119	13,689	0	12½	83	11,140	1	17	36	2,548	2	35½	17,753	14	2
Sydney	527	23,574	0	13	101	3,720	2	32	426	24,853	1	21	5,188	9	3
Tamworth.....	159	43,221	3	36	122	39,506	3	30	37	3,715	0	6	70,949	8	0
Wagga Wagga	598	242,605	1	39	565	237,917	3	7	33	4,687	2	32	396,602	13	3
Grand Totals.....	3,217	970,791	0	9½	1,919	692,255	2	31	1,298	278,535	1	18½	995,206	5	9

Conditional Purchases.

The transactions in regard to this class of holding have been on the same restricted scale as in 1896.

The area applied for during 1897 was 241,789 acres 1 rood 4½ perches under 1,306 applications, whilst in the preceding year the area was 199,449 acres 3 roods 37 perches, and the number of applications 1,279.

From Schedules VIII and IX and the subjoined Summary it will be seen that of the applications received, 769 were for original conditional purchases, 513 for additional, and 24 for non-residential conditional purchases. The distribution of these applications in the various divisions into which the Colony is divided was as follows :—Eastern Division, 876 applications for 90,107 acres 0 roods 26½ perches; Central Division, 430 applications for 151,682 acres 0 roods 18 perches; and none in the Western Division.

Particulars relating to the number of applications received during the year for land within special areas, and for ordinary lands, also respecting the number and area of conditional purchases applied for from 1862 up to the present time, are furnished in Schedule X.

Year.	Section 26. (O.C.P.)				Section 42. (A.C.P.)				Section 47. (N.R.C.P.)				Special Areas.				Total.																		
	No.	Area.		Deposit.	No.	Area.		Deposit.	No.	Area.		Deposit.	No.	Area.		Deposit.	No.	Area.		Deposit.															
		a.	r.	p.	£	s.	d.			a.	r.	p.	£	s.	d.			a.	r.	p.	£	s.	d.												
1885	2430	772,718	3	0	77,272	17	0	2639	344,053	3	20	34,405	10	4	302	47,806	3	0	9,251	1	0	6	742	0	0	140	8	0	5377	1,165,351	1	20	121,069	16	4
1886	2600	579,539	2	28	57,954	0	1	2987	330,279	3	2	33,028	0	4	355	43,636	2	37	8,850	5	0	78	9,690	2	0	2,121	17	6	6080	963,196	2	27	101,794	2	11
1887	2300	529,628	2	14	52,962	17	5	2185	231,912	2	5	23,191	5	3	186	20,073	3	12	4,014	16	0	98	11,389	1	0	2,501	12	3	4769	793,004	0	31	82,670	10	11
1888	2474	560,109	3	23	56,010	19	11	2334	247,639	0	16	24,763	18	4	283	26,139	0	22	5,227	17	0	273	31,311	0	17	7,155	9	0	5364	865,199	0	38	93,158	4	3
1889	2722	533,213	0	0	53,321	3	0	2634	283,215	0	20	28,320	15	3	271	26,660	3	0	5,532	3	0	528	00,070	2	29	12,630	5	0	6205	903,159	2	9	99,854	6	3
1890	3252	879,058	3	3	87,907	18	8	4064	600,839	2	16	60,119	2	2	230	23,163	1	33	5,635	10	6	980	205,515	1	28	40,316	1	4	8526	1,713,577	1	0	193,978	12	8
1891	2243	586,570	1	30	58,656	19	5	2541	430,069	3	38	43,007	11	5	127	12,387	0	13	2,571	9	11	1243	273,836	3	1	54,948	17	9	6154	1,303,414	1	2	159,184	18	6
1892	1535	314,920	1	24	31,492	2	9	1828	323,557	0	26	32,355	10	1	105	9,234	1	3	1,922	3	8	928	168,637	2	6	32,087	15	3	4396	816,399	1	19	97,857	11	9
1893	1156	197,092	2	15	19,709	7	2	1101	174,163	1	32	17,416	11	7	57	4,536	2	0	912	2	0	1079	158,012	3	37	31,320	2	10	3393	533,805	2	4	69,358	3	7
1894	830	132,238	3	20	13,223	18	4	858	170,802	0	24	17,080	4	4	49	3,424	0	0	684	16	0	380	107,889	3	36½	21,450	3	4½	2617	414,355	0	10½	52,439	2	0½
1895	631	102,365	0	0	10,236	10	0	643	94,218	3	0	9,421	13	0	19	1,253	2	0	250	14	0	458	55,593	3	12	10,322	19	9	1751	253,431	0	12	30,231	19	6
1896	526	71,747	0	0	7,174	14	0	403	82,474	2	36	8,403	11	9	19	1,079	3	0	215	19	0	331	43,148	2	1	8,134	12	0	1279	199,449	3	37	23,928	16	9
1897	521	69,492	2	11	6,949	6	6	407	126,503	3	0	12,651	1	7	21	1,823	0	0	364	11	0	357	43,964	3	33½	7,730	10	9	1306	241,789	1	4½	27,745	9	10

Of the applications made during the year, 619 were confirmed, for an area of 124,904 acres 0 roods 30 perches, and 217 were disallowed. Including the applications that were outstanding on the 1st January, 1897, the total number confirmed during the year was 1,033, for an area of 184,375 acres 1 rood 25 perches, and 321 were disallowed. (For further details, *see* Schedule XI.)

The incomplete conditional purchases current at the end of the year numbered 147,715, and embraced an area of 20,240,735 acres .0 roods 38½ perches, and the number of conditional purchases for which deeds of grant had been issued numbered 24,131, the total area so alienated being 2,882,662 acres 0 roods 21 perches. (*See* Schedule XXI.)

Only two hundred and fifty-four conditional purchases, representing an area of 35,768 acres 3 roods 4½ perches, were forfeited during the year, as against 443, containing 54,689 acres 0 roods 12 perches, for the preceding year. From Schedules XVIII and XIX it will be observed that of the total forfeitures 113 were due to non-payment of balance, interest, or instalment of purchase money, and 141 to non-fulfilment of the required conditions.

Under the provisions of the Crown Lands Act Amendment Act of 1891, forfeiture was conditionally waived in 223 instances, and absolutely waived in 322.

Extensions of time for payment of instalments were granted to the holders of 1,940 conditional purchases, the total area represented being 223,012 acres.

The provisions of Section 28, Crown Lands Act of 1895, by virtue of which resident conditional purchasers are enabled to obtain suspension of payment of instalments for a period of twelve months, were not nearly so largely availed of during the past year as in 1896. Applications were complied with in respect of 704 conditional purchases, containing 143,363 acres, and 142 applications were refused as compared with 2,027 granted and 353 refused in 1896.

The transactions under the Conditional Purchasers' Relief Act of 1896 show that its provisions have been largely availed of during the year under review. Relief was granted in connection with 1,252 applications, representing 3,448 conditional purchases, the difference between the original amount of annual instalments payable and the reduced amount being £9,844 4s. 3d. (For details, *see* Schedule XIV.)

	Number of Applications.	Number of Conditional Purchases.	Original Amount of Annual Instalment.			Reduced Amount of Annual Instalment.			Difference between Original and Reduced Amount.		
			£	s.	d.	£	s.	d.	£	s.	d.
Ordinary Conditional Purchase ...	1,091	3,241	23,263	16	6	14,221	11	0	9,042	5	6
Special Area Conditional Purchase...	161	207	3,154	4	5	2,352	5	8	801	18	9
Totals... ..	1,252	3,448	26,418	0	11	16,573	16	8	9,844	4	3

Full particulars relating to transfers received and dealt with during the year will be found in Schedules XVI and XVII. The number received was 8,854, and 9,299 were dealt with, representing 17,637 conditional purchases; but as the number of these purchases actually affected was only 11,896, a large proportion of them must have been transferred more than once.

Stamp duty was paid in connection with 3,342 transfers, the revenue received therefrom being £6,303 2s.

Six conditional purchases containing 1,012½ acres, and one conditional lease of 374 acres, were validated under the provisions of the 138th section of the Crown Lands Act of 1884 and the 44th section of the Crown Lands Act of 1889 during the year. (For details, *see* Schedule XX.)

The usual information relating to instructions issued to, and reports received from, conditional purchase inspectors is given in Schedule XCII. The total number of instructions issued was 13,454, and 12,830 reports were received.

No land was resumed from conditional purchases or conditional leases on account of its being auriferous. *Special*

Special Areas.

Two hundred and thirty-three special areas, embracing an area of 62,626 acres 3 roods 33 perches, were proclaimed during the year, as compared with 120, containing an area of 32,811 acres 2 roods 39 perches, proclaimed in 1896; 136 of these special areas included 53,700 acres 2 roods 38 perches of country lands, and the remainder, 97, containing 8,926 acres 0 roods 35 perches, comprised lands within population or suburban areas. (For further particulars, see Schedule LXXXII.)

From Schedule XII it will be observed that of a total available area of 136,907 acres 3 roods 21 perches of suburban or population area lands, 98,582 acres 0 roods 12 perches have been selected, and that of an area of 930,524 acres 1 rood 34 perches of country lands, no less than 815,814 acres 1 rood 27 perches have been selected. The area still available for selection on the 31st December, 1897, was 153,035 acres 3 roods 16 perches.

The transactions in each of the Land Board Districts since 1st January, 1885, is set forth in the appended summary, taken from Schedule XII:—

Land Board District.	Class of Land.	Quantity of Land Available.			Area selected.			Area unselected.		
		a.	r.	p.	a.	r.	p.	a.	r.	p.
Armidale	Country	30,516	3	0	25,206	1	0	5,310	2	0
	Suburban or Population...	3,910	3	17	2,707	2	13	1,203	1	4
Bourke	Country	12,821	2	0	2,202	1	0	10,619	1	0
	Suburban or Population...	120	0	0	40	0	0	80	0	0
Dubbo	Country	18,109	2	0	16,791	2	0	1,318	0	0
	Suburban or Population...	8,575	1	29	4,771	2	19	3,803	3	10
Forbes	Country	129,174	1	28	124,581	0	28	4,593	1	0
	Suburban or Population...	18,602	1	27	16,499	2	5	2,102	3	22
Goulburn	Country	69,836	3	10	61,986	2	20	7,850	0	30
	Suburban or Population...	43,579	2	25	35,464	3	1	8,114	3	24
Grafton	Country	46,323	2	20	38,205	0	20	8,118	2	0
	Suburban or Population...	3,502	3	33	1,825	0	19	1,677	3	14
Hay	Country	129,065	3	0	110,991	0	0	18,074	3	0
	Suburban or Population...	10,086	1	0	9,234	0	0	852	1	0
Maitland	Country	12,442	1	18	11,222	3	18	1,219	2	0
	Suburban or Population...	9,092	2	8	6,690	2	19	2,401	3	29
Moree	Country	28,857	1	13	21,055	0	13	7,802	1	0
	Suburban or Population...	2,311	3	30	706	2	20	1,605	1	10
Orange	Country	55,735	3	30	51,240	3	30	4,495	0	0
	Suburban or Population...	11,848	0	20	9,518	3	26	2,329	0	34
Sydney	Country	10,538	0	0	5,721	3	0	4,816	1	0
	Suburban or Population...	6,755	2	33	2,107	0	20	4,648	2	13
Tamworth	Country	102,315	3	14	79,666	3	25	22,648	3	29
	Suburban or Population...	16,451	1	18	7,527	3	30	8,923	1	28
Wagga Wagga	Country	284,786	2	21	266,942	3	33	17,843	2	28
	Suburban or Population...	2,070	2	21	1,488	1	0	582	1	21
Total	Country	930,524	1	34	815,814	1	27	114,710	0	7
	Suburban or Population...	136,907	3	21	98,582	0	12	38,325	3	9
Grand Total ... ..	.....	1,067,432	1	15	914,396	1	39	153,035	3	16

Schedule XIII supplies details relating to appraisements under the provisions of the 36th section of the Crown Lands Act of 1895 of the values of special area conditional purchases.

The total area covered by the applications to appraise was 597,011 acres 2 roods 17½ perches, and the values have been finally determined in respect of 577,501 acres 3 roods 18½ perches. The capital value of the latter area prior to appraisement was £1,152,495 8s. 1½d.; but as determined by appraisement is only £814,820 7s. 0½d., thus showing a reduction in capital value of £337,675 1s. 1d., which necessarily carries with it a proportionate diminution in the amount of the annual instalments payable. It may be stated that, prior to the appraisement, the annual instalments payable in respect of the 577,501 acres 3 roods 18½ perches, referred to, amounted to £57,625 15s. 5½d., whereas under the recently appraised values they will only amount to £40,741 0s. 4d., thus showing an annual loss of £16,883 15s. 1½d. It is anticipated that the appraisement of the balance of the area covered by the applications will also result in a reduction in the capital value.

The

The appended summary will serve to show the transactions in each of the Land Board Districts :—

SUMMARY.

Land Board District.	Total Number of Applications Received.	Area.		Total Number of applications dealt with by L.L.B. to 31st December 1897.	Area.		Cases in which Values have been Finally Determined.																
							Number of Conditional Purchases.	Area.			Amount of Purchase Money Represented at Original Price.		Amount of Purchase Money Represented after Appraisal.		Amount of Annual Instalments Represented at Original Rate.		Amount of Annual Instalments Represented after Appraisal.						
		a.	r. p.		a.	r.		p.		a.	r.	p.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Armidale	111	18,171	1 0	110	18,051	1 0	113	17,413	1 0	33,750	12 7½	24,584	6 0½	1,689	0 7	1,229	4 2						
Bourke	5	1,202	1 0	5	1,202	1 0	5	1,202	1 0	2,229	7 6	1,996	7 6	111	9 4	99	16 4						
Dubbo	46	11,299	0 0	46	11,299	0 0	40	10,726	0 0	19,724	7 9	15,708	12 9	986	4 5	785	8 8						
Forbes	341	96,787	2 19	341	96,787	2 19	378	95,305	1 19	171,645	6 2	116,681	9 4	8,532	5 5	5,834	1 6						
Goulburn	369	53,059	2 0	369	53,059	2 0	367	52,753	3 33	120,761	7 5	98,809	3 11	6,038	1 4	4,940	9 4						
Grafton	191	20,530	0 20	191	20,530	0 20	220	20,530	0 20	46,510	0 8	31,812	10 5	2,325	10 0	1,590	12 6						
Hay	272	102,632	0 0	272	102,632	0 0	249	98,719	2 0	176,125	12 7	127,410	8 0	8,806	5 8	6,370	10 5						
Maitland	67	8,666	0 0	67	8,666	0 0	70	7,319	1 30	15,555	5 8	14,459	1 9	777	15 4	722	19 0						
Moree	60	16,180	3 0	60	16,180	3 0	59	15,697	2 20	25,409	15 6	23,157	11 8	1,270	9 9½	1,157	17 7						
Orange	204	40,754	1 30	204	40,754	1 30	218	37,441	1 14	71,405	18 3	61,579	13 7	3,570	5 11	3,078	19 8						
Sydney	36	2,912	1 30	36	2,912	1 30	36	2,912	1 30	6,346	2 6	4,647	10 1	317	6 2	232	7 6						
Tamworth	166	27,356	0 30	166	27,356	0 30	160	26,596	0 10	58,395	3 9	52,326	5 5	2,919	15 1	2,616	6 3						
Wagga Wagga	855	197,460	0 8½	836	193,555	2 8½	879	190,884	2 2½	404,606	7 9	241,647	6 7	20,230	6 5	12,082	7 5						
Totals	2,723	597,011	2 17½	2,703	592,987	0 17½	2,794	577,501	3 18½	1,152,495	8 1½	814,820	7 0½	57,624	15 5½	40,741	0 4						

Improvement Purchases.

The area of land within proclaimed gold-fields applied for to purchase in virtue of improvements, under section 46 of the Crown Lands Act of 1884, shows an advance on the previous year. The number of applications received during 1897 was 192, the number approved was 96, whilst 22 were refused, and 1 allowed to lapse. The area alienated amounted to 92 acres 0 roods 17¼ perches, comprised within 115 lots, the price realised being £1,543 3s. (For further particulars, see Schedule XXXVI.)

Special Purchases.

The transactions in connection with this class of alienations include applications for rescission of water frontage reservations (section 12, Act of 1861, and section 63, Act of 1884), for permission to reclaim and purchase land (section 64, Act of 1884), for the purchase of small, isolated areas, &c. (section 66, Act of 1884), for permission to close and purchase unnecessary roads (section 67, Act of 1884), and also for the granting of Crown lands in lieu of land resumed for roads (section 42, Act of 1889).

The number of applications received during the year was 105, of which 7 were under section 63, Act of 1884; 22 under section 64, Act of 1884; 10 under section 66, Act of 1884; 27 under section 67, Act of 1884; and 39 under the Public Roads Act of 1897.

The area alienated amounted to 1,145 acres 0 roods 16 perches, the purchase money received being £7,398 16s. 7d. The area disposed of in the year 1896 under these sections was 262 acres 0 roods 4 perches, the sum realised being £4,032 15s.

Under the 42nd section, Act of 1889, 114 cases were completed during the year, the area granted being 865 acres 0 roods 21¼ perches.

Further details will be found in Schedule XXXVII; but the Summary hereunder presents the year's transactions in a condensed form for reference :—

Section	Area sold.			Purchase Money.		
	a.	r.	p.	£	s.	d.
Section 63, Act 1884...	9	2	0½	681	13	2
„ 64, „ „ ...	3	3	26¾	3,784	12	6
„ 66, „ „ ...	110	0	31	422	11	4
„ 67, „ „ ...	1,021	1	38	2,509	19	7
„ 42, „ 1889...	865	0	21¼	.....	.....	.....
	2,010	0	37¼	7,398	16	7

Surrenders and Exchanges.

If a comparison of the transactions under this heading for the past year be made with those for the year 1896, it will be observed that the volume of business has been well maintained. One hundred and eighty-one applications were received during the year under review, as against 177 in 1896. Sixty-seven applications were refused or withdrawn, and 366 were outstanding at the close of the year. It may be explained

explained that the large number of cases outstanding is mainly due to the magnitude of the transactions, the importance of the interests involved, and to the protracted negotiations which are usually necessary before a proper basis of exchange can be arranged for the local Land Boards to inquire into.

During the year 63 cases, representing an area of 312,408 acres, 1 rood 39 perches were finally completed, and the surrenders accepted by the Governor-in-Council. (*See Schedule XXXVIII.*)

Among the more important of the exchanges completed during the year the following may be mentioned, viz. :—Yanga, Stonehenge, Cooma, and Baan Baa, in connection with which 35,678 acres were surrendered to the Crown. Boorooma, 39,692 acres; Beremegad, 14,710 acres; Tubbo, 14,027 acres; Coree, 12,303 acres; Gonn, 10,842 acres; Yarrawin, 10,829 acres; Bland, 9,827 acres; Narromine, 7,375 acres; and Berida, 7,261 acres.

On completion of the surrenders the land, if not within a leasehold area, is at once classified and thrown open to selection, or if too limited in extent for new settlement, is added to adjoining selections.

Deeds of Grant.

Two thousand and ninety-nine deeds of grant were prepared during the year, the area represented being 262,391 acres 1 rood $16\frac{11}{20}$ perches. These figures show a slight decrease on those for the year 1896, in which year 2,168 deeds were prepared, for an area of 296,438 acres 1 rood $33\frac{3}{4}$ perches. (*See Schedule XXXIX.*)

Although the number of deeds prepared is less than for the year 1896, still the work performed during the year 1897 was quite as great, if not greater, than in the preceding year. As indicated in the report for 1896, the amount of detail work in connection with the preparation of deeds in exchange cases is very much greater than in ordinary cases, more particularly with regard to investigation of the titles to the lands to be surrendered, many of which are of a very complicated nature, necessitating the utmost care and attention in dealing with them.

Volunteer Land Order Applications.

During the year 2 of these applications were received, 1 being for land within the Tamworth Land District and 1 for land in the Windsor District. Four applications, representing an area of 200 acres, were granted.

The number of these applications received in the year 1896 was 12.

Settlement Leases.

From Schedule LXXXIV it will be seen that the settlement lease areas notified during the year 1897 contained 367 farms, embracing an area of 1,046,999 acres.

The number of leases applied for during the year was 326, the area embraced being 902,389 acres, and the annual rental £10,314 15s. 11d. Applications for 225 farms, containing $619,461\frac{1}{4}$ acres, were confirmed, and applications for 71 farms were outstanding at the close of the year. (*For further particulars, see Schedule LVII.*)

The total number of leases executed and issued from the date the Crown Lands Act of 1895 came into operation to the end of the year 1897 was 427, embracing an area of 1,174,207 acres. The rental returned by this area was £13,988 14s., or an average of about 3d. per acre. (*For further details, see Schedule LVIII.*)

During the year 5 leases, containing an area of 12,294 acres, to which a rental of £146 5s. 2d. was attached, were declared null and void, and 3 leases, comprising an area of 8,355 acres, and returning an annual rental of £104 8s. 9d., were declared forfeited. (*See Schedule LIX.*)

In Schedule LX full particulars are furnished regarding the notification and disposal of settlement lease areas since the Crown Lands Act of 1895 came into operation. From this Schedule it will be seen that up to the 31st December, 1897, an area of $3,139,454\frac{1}{4}$ acres, comprised within 996 farms, had been set apart for settlement lease. Of this area, however, only 803 farms, containing in all 2,578,652 acres 3 roods, became available for selection before the close of the year, and of these farms, 529, embracing an area of 1,469,311 acres 2 roods, had been selected, thus showing that of the area available for selection 57 per cent. had been applied for. The capital value of the land selected was £1,464,678 8s. 10d. The

The appended summary of the transactions in each of the Land Board Districts is extracted from Schedule LX :—

Land Board District.	Quantity of Land Available.			Area Selected.			Area unselected on the 31st Dec., 1897.			Capital value represented by land selected.
	No. of Farms.	Area Available.		No. of Farms.	Area.		No. of Farms.	Area.		
		a.	r. p.		a.	r. p.		a.	r. p.	£ s. d.
Armidale.....	14	67,398	0 0	6	26,749	0 0	8	40,649	0 0	18,632 18 8
Bourke.....	37	199,546	0 0	25	103,338	0 0	12	96,208	0 0	79,428 0 10
Dubbo.....	148	435,495	2 0	121	312,979	2 0	27	122,516	0 0	324,783 9 7
Forbes.....	109	322,482	1 0	82	220,308	0 0	27	102,174	1 0	180,954 7 1
Goulburn.....	17	40,873	3 0	2	2,575	0 0	15	38,298	3 0	668 10 0
Hay.....	61	201,708	3 0	17	47,834	2 0	44	153,874	1 0	51,872 2 6
Maitland.....	9	20,615	3 0	...	.....	.....	9	20,615	3 0	.....
Moree.....	191	587,842	2 0	147	420,974	0 0	44	166,868	2 0	446,634 14 11
Orange.....	16	28,947	0 0	2	4,417	0 0	14	24,530	0 0	2,260 1 6
Sydney.....	3	6,730	0 0	...	.....	.....	3	6,730	0 0	.....
Tamworth.....	181	626,113	3 0	116	306,103	0 0	65	320,010	3 0	338,369 3 4
Wagga Wagga.....	17	40,899	2 0	11	24,033	2 0	6	16,866	0 0	21,075 0 5
Totals.....	803	2,578,652	3 0	529	1,469,311	2 0	274	1,109,341	1 0	1,464,678 8 10

Annual Leases.

At the close of the year 1897, 10,070 annual leases, containing 5,960,604 acres 2 roods 2 perches, were in existence, the revenue derived therefrom being £41,287 13s. 10d. per annum. (See Schedule LXXIII.)

The following table shows the number, area, and rental of the leases in existence in each Division of the Colony at the end of 1897 :—

Division.	Number.	Area.	Rent.
		a. r. p.	£ s. d.
Eastern	8,903	5,090,328 2 2	33,606 18 5
Central	1,090	797,250 0 0	7,047 16 1
Western	77	73,026 0 0	632 19 4
	10,070	5,960,604 2 2	41,287 13 10

Twelve hundred and twenty-three leases lapsed during the year, the area being 780,464 acres 1 rood 6 perches, and the rental £5,622 11s. 3d. The cancellations numbered 67, the area covered being 101,188 acres 3 roods, to which a rental of £252 8s. 11d. was attached. (Schedule LXXII.)

The number of applications disposed of during the year was 2,586, of which 2,155 were granted, and 431 either disallowed or withdrawn. Some of these applications were lodged prior to 1897. The area leased in satisfaction of the applications granted was 1,232,251 acres 3 roods 19½ perches, the rental derived therefrom being £7,717 17s. 2d. (Vide Schedule LXX.)

The area offered for lease by auction during 1897 was 77,571 acres 1 rood, of which 33,232 acres 1 rood were sold, the annual rent realised being £617 18s. 5d. (Schedule LXXI.)

The following table extracted from Schedules LXX and LXXI gives the number of applications made, the area applied for, and the area leased by auction during the past five years :—

Year.	Applications made.	Area applied for.	Area leased by auction.
		a. r. p.	a. r. p.
1893	2,130	1,390,212 1 13	10,709 0 0
1894	1,779	1,018,615 0 0	11,042 0 0
1895	2,444	1,458,627 2 0	6,929 3 0
1896	1,928	1,072,830 0 35½	8,689 2 0
1897	2,322	1,473,680 1 24	33,232 1 0

If a comparison of the transactions of the past year be made with those of 1896 a substantial increase will be observed both in regard to the applications made and the area applied for. Conditional

Conditional Leases.

The number of applications received in 1897 was 713, for an area of 298,819 acres.

From the appended schedule it will be noticed that the decline in the transactions relating to this class of lease as compared with those of past years still continues. As pointed out in the Annual Report for 1896 the diminution in the number of applications made is in a large measure due to the residence conditions imposed by the Crown Lands Act of 1895, and to the popularity of the classes of holding created by that Act.

Full details regarding the applications received during 1897 will be found in Schedule XXVII; and a summary of those received annually since 1885, the year in which this class of holding was introduced, is shown hereunder.

Year.	Number.	Area.			Deposits.		
		a.	r.	p.	£	s.	d.
1885	3,816*	2,547,045	0	15*	21,225	7	6
1886	2,500	1,207,953	0	8	10,066	5	6
1887	2,228	1,242,380	0	0	10,353	3	4
1888	2,623	1,424,753	1	25	11,872	18	11
1889	3,470	1,569,949	3	30	13,082	18	4
1890	5,466	3,056,774	2	26	25,489	7	2
1891	3,952	2,177,810	0	15	18,140	17	10
1892	2,692	1,171,971	1	18	9,769	5	1
1893	1,800	715,611	0	34	5,943	8	4
1894	1,338	528,612	2	30	4,409	9	10
1895	1,120	478,301	3	20	3,985	1	8
1896	736	335,101	1	30	2,783	7	5
1897	713	298,819	0	0	2,498	11	9

* This includes 1,994 applications, made under 54th section of the Act of 1884, representing an area of 1,198,617 acres 0 roods 30 perches.

During the year 767 applications were dealt with, 540 being confirmed, for an area of 212,093 acres 3 roods 18 perches, and 247 disallowed. Of the applications confirmed, 249 were made during 1897, and embraced an area of 93,197½ acres; and of the applications disallowed, 157 were lodged during that year. Further particulars will be found in Schedule XXVIII.

Two thousand eight hundred and thirty-two transfers were passed during 1897, the number of leases affected being 1,973, representing an area of 1,444,847 acres 2 roods. (See Schedule XXIX.)

During the year there were 167 conversions of conditional leases into conditional purchases under the provisions of section 25 of the Crown Lands Act of 1889. The whole of the leases were converted in 91 cases, whilst only parts of the leases were converted in the remainder of the cases. The total area so converted amounted to 51,278 acres 3 roods 30 perches, to which a rental of £682 1s. 9d. formerly attached. (For details, see Schedule XXXI.)

In 593 cases the rents recommended by the Local Land Boards were approved by the Minister, and no references were made to the Land Appeal Court.

Extension of time for the payment of rent was granted in 387 cases, the amount thus deferred being £5,020 1s. 4d. Forfeiture was provisionally waived in 169 instances, and absolutely waived in 202 cases.

The number of leases gazetted as approved during the year was 593, containing 239,702 acres 2 roods 18 perches, the rental represented being £2,664 1s. 7d. The total number of gazetted leases in existence at the end of the year was 22,297, containing 12,690,078 acres 0 rood 32½ perches, and returning an annual rental of £151,284 12s. 6d. Full details will be found in Schedule XXXII.

One hundred and seventy two leases were gazetted as forfeited during the year. These embraced an area of 75,293 acres, and the rental attached thereto was £867 18s. 6d. (Schedule XXX.)

Since December, 1885, an area of 9,988 acres 0 roods 37 perches has been cancelled, out of 19 leases, on account of the land being auriferous.

Pastoral

Pastoral Leases.

The pastoral leases current on 31st December, 1897, were 744 in number, containing a total area of 52,718,545 acres, and returning an annual rental of £271,903 11s. 3d. Of these leases, 436 were situated in the Central and 308 in the Western Division. The appended Schedule gives the area leased in each division and the rental obtained. (For further details, *see* Schedule XL.)

No. of Leases.	Division of Colony.	Area.	Rent.
436	Central	acres. 12,623,807	£ s. d. 135,548 7 5
308	Western	40,094,738	136,355 3 10
744		52,718,545	271,903 11 3

One forfeiture occurred during the year. (Schedule XLVII.)

An area of 385,199 acres was withdrawn from pastoral lease for public purposes during the year. This area was distributed over 89 leaseholds, and the sum of £2,160 12s. 9d. was refunded to the lessees on account of rent paid in advance upon the area so withdrawn. (Schedule XLI.)

Seventy-five pastoral leases were transferred during the year; of these, 40 were situated in the Central and 35 in the Western Division. (Schedule XLII.)

The reappraisements, under section 9 of the Crown Lands Act of 1895, of pastoral leases in the Western Division were finally completed during the year. The total number of leases appraised under this section was 263, representing an area of 34,749,955 acres. The original rental derived from this area was £165,584 9s. 11d., whilst the rental as determined by the reappraisal is £118,137 11s. 2d., showing a reduction of £47,446 18s. 9d. per annum. The average rate per acre, according to the original rental, was $1\frac{1}{100}$ d., whilst under the recently-appraised rental the average rate per acre is $\frac{8}{100}$ d. The difference between the two rentals represents a diminution of 27 per cent. on the original rate. (For further details, *see* Schedule XLV.)

During the year the reappraisements, under section 29 of the Crown Lands Act of 1889, of 21 pastoral leases in the Western Division was also completed. The area comprised was 1,288,418 acres, which formerly returned a rental of £7,730 5s. 10d. per annum. The rentals, as reappraised, show a slight reduction on former rates. The subjoined statement gives full particulars as to areas, rentals, &c.:—

Local Land Board District.	No. of Leases.	Area.	Rent according to original Rate.	Rent according to New Rate.
		acres.	£ s. d.	£ s. d.
Bourke	7	605,254	4,328 10 9	4,079 5 11
Hay	10	468,129	1,338 17 7	1,467 0 5
Morree	4	215,035	2,062 17 6	1,952 16 5
	21	1,288,418	7,730 5 10	7,499 2 9
Average rate per acre ...	...	.....	$1\frac{4}{100}$ pence.	$1\frac{3}{100}$ pence.

During the year 1897, 11 applications were made under section 8 of the Crown Lands Act of 1895 for the attachment of resumed areas to their respective leasehold areas. The area covered by these applications was 1,660,294 acres. Twenty applications, for a total area of 1,973,289 acres, were approved, and 8, for an area of 1,024,170 acres, were either refused or withdrawn. (For further details, *see* Schedule XLIII.)

The names and numbers of the pastoral leases that expired during 1897 will be found in Schedule XLIX, and details of those which will expire in 1898 will be found in Schedule XLVIII.

The area gazetted as withdrawn from pastoral lease during the year, under the provisions of sections 3 and 6 of the Crown Lands Act of 1895, to meet the demand for land for closer settlement, was 547,567 acres, of which 514,867 acres were situated in the Central Division, and 32,700 acres in the Western Division. Preliminary notification of the intention to withdraw was gazetted in respect of 11 other holdings, all of which are situated in the Central Division. (For particulars of areas withdrawn, and for the names of the holdings from which it is proposed to withdraw land, *see* Schedule L.)

The undermentioned pastoral leases situated in the Central Division were declared scrub land under the 35th section of the Crown Lands Act of 1889, and brought under the West Bogan agreement:—

No. of Pastoral Leases.	Name of Pastoral Leases.
753 ... ..	... Buddabudah.
754 ... ..	... Euambeline.

Occupation Licenses.

The licenses in force during 1897 numbered 1,713, covering an area of 36,960,446 acres, and returning an annual rental of £100,529 9s. 4d. (Schedule XL.)

It will be observed from the Table appended that the licenses current during the year show a slight increase in point of numbers when compared with those held in 1896, but the acreage and rental both show decreases.

Current on 31st December, 1896.				Current on 31st December, 1897.			
Division.	No.	Area.	Rent.	Division.	No.	Area.	Rent.
		acres.	£ s. d.			acres.	£ s. d.
Eastern	397	4,785,594	11,842 1 9	Eastern	432	5,206,420	11,422 10 3
Eastern (preferential)...	314	3,674,573	17,482 6 0	Eastern (preferential)...	305	3,535,612	16,052 3 3
Central	547	5,832,800	30,805 8 5	Central	541	5,140,851	27,784 10 5
Central (preferential) ...	224	3,638,441	26,923 15 0	Central (preferential)...	239	3,534,796	23,499 6 0
Western	211	22,278,833	26,356 6 6	Western	196	19,542,767	21,770 19 5
Total	1,693	40,210,241	113,409 17 8	Total	1,713	36,960,446	100,529 9 4

Of 156 licenses, containing 1,727,464 acres, which were offered for sale by action or tender, 64, embracing an area of 863,680 acres, were disposed of. The number and area of those sold in 1896 was 104, containing 1,478,202 acres. (For further details, *see* Schedule XLIV.)

Twenty-five preferential occupation licenses were not renewed for 1897. Of these, 11 are situated in the Eastern and 14 in the Central Division; whilst of ordinary occupation licenses, 35 were not renewed, 15 of which were within the Eastern, 18 within the Central, and 2 within the Western Division. (*See* Schedule XLVII for further details.)

Thirty-seven preferential and 81 ordinary occupation licenses were transferred during the year. (*See* Schedule XLII.)

An area of 2,167,636 acres was withdrawn from 417 occupation licenses during the year for purposes of alienation, reservation, &c.; and as the rent is paid in advance, the withdrawal of this area necessitated the refund to licensees of the sum of £9,903 5s. (*See* Schedule XLI.)

The license fees of 26 resumed areas were reappraised and gazetted during the year under the provisions of the 81st section of the Crown Lands Act of 1884. (For names of areas and other details, *see* Schedule XLVI.)

Information relating to the attachment of resumed areas to leasehold areas will be found in the chapter dealing with Pastoral Leases and in Schedule XLIII.

In connection with the reappraisements under section 9 of the Crown Lands Act of 1895 of occupation licenses in the Western Division, 144 applications in all were received, and action has been completed in respect of the whole of them. The area reappraised was 17,334,681 acres, which formerly produced a revenue of £34,448 7s. 2d. per annum; the rental, as determined by the reappraisements, amounts

amounts to £16,497 4s. 10d., thus showing a reduction on the former rental of £17,951 2s. 4d., being a decrease of 52 per cent. The average rate per acre, according to the original rental, was 48d., whilst under the recently appraised rental the rate is 23d. (For details, *see* Schedule XLV.)

In Schedule LI will be found details respecting areas and rentals of certain preferential occupation licenses, embracing expired leaseholds in the Central Division which were appraised during the year under review.

Homestead Leases.

The number of homestead leases in existence on the 31st December, 1897, was 1,243, containing an area of 10,381,324 acres, and producing a rental of £56,177 19s. 8d.

As pointed out in previous Reports, these leases are only granted in the Western Division, and are situated within the Land Board Districts of Bourke, Hay, and Moree. The Bourke District is credited with 790 leases, embracing 6,726,065 acres, yielding a rental of £34,602 11s. 7d., the average rate per acre being 1.23d.; Hay, with 330 leases, containing 2,621,874 acres, yielding a rental of £13,050 15s. 7d., the average rate per acre being 1.19d.; and Moree, with 123 leases, containing 1,030,385 acres, producing a rental of £8,524 12s. 6d., the average rate per acre being 1.98d. (Further details will be found in Schedule LVI.)

The number of applications lodged during the year was 78, as against 89 in the year 1896.

The details furnished in the subjoined Schedule will afford a means of comparing the number of applications, area applied for, &c., during the last thirteen years. (For full particulars, *see* Schedule LII.)

Year.	No. of Applications.	Area applied for.	Deposits lodged.		
		acres.	£	s.	d.
1885	391	3,823,235	15,880	2	11
1886	121	1,141,963	4,758	3	7
1887	128	1,198,286	4,992	17	2
1888	141	1,332,691	5,511	15	7
1889	238	2,187,837	9,113	19	9
1890	310	2,620,959	10,920	13	3
1891	191	1,515,629	6,278	2	1
1892	176	1,214,447	5,648	16	6
1893	135	870,044	3,582	10	4
1894	110	692,515	2,885	9	7
1895	106	613,723	2,557	3	7
1896	89	605,146	2,521	8	10
1897	78	494,680	2,055	4	11

The number of homestead leases granted during the year was 61, representing an area of 419,840 acres and a rental of £1,246 18s. 11d., as against 79, containing 459,453 acres, and returning a revenue of £1,383 4s. 3d., granted in 1896. The average rental per acre of the area leased in 1897 was 7d., practically the same average as for the year 1896.

Thirty-five applications were either refused or permitted to be withdrawn, and 60 were outstanding at the close of the year. (For fuller details, *see* Schedule LIII.)

Forty-five leases, embracing an area of 311,830 acres, and representing a rental of £1,270 0s. 10d., were forfeited during the year. (Further particulars will be found in Schedule LIV.)

The reappraisal under section 9 of the Crown Lands Act of 1895 of the rentals of homestead leases was completed during the year. Applications for reappraisal were made in connection with 730 leases; but, as 18 applications were withdrawn, the total number of leases dealt with was 712. From Schedule LV it will be observed that the total area reappraised was 6,612,077 acres, which formerly returned an annual rental of £47,258 12s. 8d. The rental, as determined by the reappraisal, however, only amounts to £35,322 14s. 2d., thus showing a reduction of slightly over 25 per cent. The average rate per acre, according to the original rental, was 1 $\frac{7}{100}$ d., whilst, according to the new rate, it is only 1 $\frac{2}{100}$ d. per acre.

During

During the year the reappraisements made under section 29 of the Crown Lands Act of 1889 of 90 Homestead Leases were also completed. These leases comprised an area of 658,697 acres, which formerly returned a rental of £5,232 12s. 3d. The rental as determined by the reappraisements is £4,537 17s. 0d., showing a reduction of £694 15s. 3d. on the former rent. (For further details, *see* Schedule appended.)

Local Land Board District.	No. of Leases.	Area.	Rent according to Original Rate.			Rent according to New Rate.		
			£	s.	d.	£	s.	d.
		acres.						
Bourke... ..	50	337,742	2,575	4	8	2,179	17	10
Hay	22	147,434	834	11	11	740	18	0
Moree	18	173,521	1,822	15	8	1,617	1	2
	90	658,697	5,232	12	3	4,537	17	0
Average rate per acre			1 13 ¹ / ₁₀ d.			1 11 ⁵ / ₁₀ d.		

172 transfers were completed during the year, and 37 were outstanding at the close of the year.

Special Leases.

The applications received for special leases show a very marked increase on the year 1896, being 514 as against 275. As 286 applications were pending on the 31st December, 1896, the total number requiring action during the year was 800. Of these 398 were dealt with, 184 being declined, withdrawn, &c., and 214 granted. The granted leases represent an area of 8,748 acres 3 roods 10³/₄ perches, the annual rental produced being £3,009 9s. 10d. The applications pending at the close of the year numbered 424. (Further details will be found in Schedule LXII.)

Forfeitures of these leases were more numerous than in the previous year, the number forfeited during 1897 being 28, embracing an area of 1,015 acres 1 rood 36¹/₂ perches, with an annual rental of £271 12s., as against 12, containing 491 acres 3 roods 12 perches, and producing a revenue of £184 10s. in the year 1896. (For full details, *see* Schedule LXIII.)

Including the leases which terminated by effluxion of time on the 31st December, 1897, the number of leases current on that date was 804, comprising an area of 25,695 acres 1 rood, and producing an annual rental of £16,332 0s. 2d. Sixty-three leases, covering an area of 956 acres 1 rood 24¹/₄ perches, expired by effluxion of time during the year. (For further details, *see* Schedules LXIV and LXV.)

Special leases are granted under the provisions of sections 89, 90, and 92, of the Crown Lands Act of 1884, and section 46 of the Crown Lands Act of 1895, for the various purposes specified hereunder:—

Under section 89—

Floating docks, jetties, piers, and wharfs below high-water mark.

Under section 90—

Accommodation house.	Freezing works.	Sericulture.
Accommodation paddock.	Gravel (to obtain).	Shells (to obtain).
Agriculture.	Grazing.	Ships (building or repairing).
Bakery.	Guano (to obtain).	Skin-drying and packing.
Ballast (to obtain).	Inn.	Slaughter-houses.
Bathing places.	Irrigation.	Smelting-works.
Bee and Poultry Farm.	Landing-places.	Smithy.
Boats (building and repairing)	Lime-kilns.	Stables and accommodation paddocks.
Boiling-down works.	Limestone (to obtain).	Store.
Brick earth (to obtain).	Loam (to obtain).	Sugar-cane growing.
Brick-kiln.	Machinery (erection of).	Storage purposes.
Bridges.	Mail stations in sparsely-populated dis-	Tanks.
Cricket.	tricts.	Tanneries.
Dairying.	Pipe-line.	Tobacco growing.
Dams.	Public recreation and Show Ground.	Vegetable garden.
Drainage.	Punt-houses.	Village settlement.
Eucalyptus (cultivation of).	Quarries.	Wattle-growing.
Explosives (sites for storage of).	Railway station and dépôt.	Well.
Factory.	Recreation.	Wharfs (above high-water mark).
Ferries.	Residence.	Wool-washing establishments.
Fisheries.	Saw-mills.	Working mineral springs.

Under section 92—

Irrigation works and tramway purposes.

Under section 46, Crown Lands Act of 1895—

Business purposes.

Erection of buildings.

Artesian

Artesian Well Leases.

During the year one artesian well lease was gazetted as approved, representing an area of 10,240 acres, with a rental of £16 per annum. The total number of these leases current at the close of the year 1897 was 36, comprising an area of 368,611 acres, with an annual rental of £1,013 18s. 7d.

Improvement Leases.

This class of holding was brought into existence to provide for the occupation and improvement of large tracts of vacant Crown lands which by reason of their inferior quality could not be profitably held under any of the ordinary forms of tenure. These leases can be acquired either at auction or by tender, long tenure and nominal rental being the inducements offered; they are, however, as their designation indicates, subject to a condition of improvement, a condition which is strictly enforced.

On reference to Schedule LXI, Part A, it will be seen that during the year 81 leases, of a total area of 880,820 acres, were sold by auction, the annual rental realised being £1,707 12s. 8d.; and tenders were accepted for 32 others, containing an area of 464,498 acres, representing an annual rental of £423 1s. 4d. From Part B of Schedule LXI it will be seen that on the 31st December, 1897, the number of these leases in existence was 218, embracing an area of 2,286,248 $\frac{1}{4}$ acres, producing a revenue of £2,955 8s. 4d., an average of .24d. per acre; and that 19 leases aggregating 288,322 acres, were declared void during the year 1897, the rental represented being £277 7s. 9d.

Scrub Leases.

A substantial increase in the number of applications for this class of lease is noticeable; the number received during the year 1897 being 36, aggregating 554,690 $\frac{1}{2}$ acres, and in addition to these 21 applications, representing an area of 547,288 acres, were outstanding at the close of 1896, making a total of 55 leases requiring action during the year. Of these 4 were granted embracing an area of 17,312 $\frac{1}{2}$ acres, the annual rental represented being £40 19s. 9d., and 9 were disallowed or withdrawn.

No leases expired during the year, but two were forfeited covering an area of 12,107 $\frac{1}{2}$ acres, representing a rental of £48 18s. The number of leases current at the end of the year was 40, containing an area of 222,298 acres, returning an annual rental of £327 3s. 6d. (Full details will be found in Schedule LXVI.)

Leases of Inferior Lands.

No leases were granted during the year, but two were declared forfeited, the area and rental being respectively 4,950 acres and £3.

The number of leases current at the close of the year was 37, containing an area of 422,275 acres, and returning a rental of £354 0s. 7d. per annum. (Schedule LXVII.)

Residential Leases.

The transactions in connection with these leases show a decided increase when compared with the year 1896. The applications received during the year numbered 101, and these, added to 82 outstanding at the close of 1896, give a total of 183 that were under action during 1897. Nineteen applications were either disallowed or withdrawn, and 47 were granted for an area of 699 acres 3 roods 4 perches, at a rental of £73 8s.

The forfeitures for the year numbered 12, representing an area and rental of 93 acres 0 roods 21 $\frac{1}{4}$ perches and £15 1s. 6d. respectively.

The number of leases current at the close of the year was 211, covering an area of 2,293 acres 1 rood 35 perches, and producing an annual revenue of £322 4s. 11d. (For further particulars, see Schedule LXVIII.)

Snow Leases.

One of these leases, embracing an area of 7,002 acres, was granted during the year, at a rental of £43 15s. 3d., and five containing 24,685 acres, which returned a rental of £240 2s. 3d., were forfeited.

The leases current on the 31st December, 1897, were 21 in number, containing an area of 94,997 acres, and producing an annual rental of £577 11s. 4d. (Schedule LXIX.)

Dedications—

Dedications—Reserves—Resumptions.

The number of reserves from sale notified during the year was 1,247, embracing an area of 961,281 acres, and the reserves from sale revoked numbered 1,878, representing an area of 2,634,829 acres. (Schedules LXXVII and LXXVIII.)

Reserves from lease and license, annual lease, &c., notified in 1897, were 314 in number, comprising 1,703,567 acres. The revocations of similar reserves during the year reached a total of 343, the area contained therein being 631,291 acres. (Schedules LXXIX and LXXX.)

The dedications for religious and public purposes during the year were 188 in number, representing an area of 3,645 acres 2 roods 16 $\frac{3}{10}$ perches. Particulars as to the respective purposes for which these lands were dedicated will be found in Schedule LXXXI.

During the year 1897 the area resumed under the provisions of the 105th section of the Act of 1884, the 41st section of the Act of 1889, and section 7 of the Public Trusts Act of 1897, was 403 acres 1 rood 17 perches. Full particulars of the land so resumed may be found in Schedule LXXVI.

Newcastle Pasturage Reserve.

There are 579 holdings under the Newcastle Pasturage Reserve Act on which the payment of purchase money is still proceeding. During the year the balances on 17 purchases were paid, making the total number of holdings fully paid up 319, representing a capital value of £19,474 4s. 3d. Further particulars are contained in Schedule LXXV.

Cases of Trespass on Crown Land.

Four hundred and three cases of trespass on Crown lands were reported during the year; and as 321 cases had not been dealt with at the end of 1896, the total number requiring action during the year was 724. From Schedule LXXXV it will be observed that 379 cases were dealt with in various ways, leaving a balance of 345 on which action had not been completed at the close of the year.

Applications for permission to Ringbark.

During the year, 179 applications were received, covering an area of 1,198,379 $\frac{3}{4}$ acres, the fees lodged in connection therewith amounting to £501. Of the applications received prior to 1897, 71 were granted, also 101 of those received during the year, making a total of 172, representing an area of 1,064,411 acres. During the year, 29 applications were disallowed, and at the close thereof 63 were outstanding. (For further details respecting these transactions, see Schedule XCIII.)

Permissive Occupancies.

On the 31st December, 1897, 547 permissive occupancies were in existence, the area included being 50,739 acres 2 roods 26 perches, and the rental derived £984 2s. 10d. (For further details, see Schedule LXXIV.)

Cases dealt with by Local Land Boards.

During the year under review, 18,952 cases were considered by the Local Land Boards, of which 1,355 were adjourned. A comparative statement for the past five years is appended, and further details will be found in Schedule XCI.

1893	30,910 cases considered ;	2,830 cases adjourned ;	1,449 $\frac{1}{2}$ days occupied.
1894	25,988	2,055	1,438
1895	21,436	1,970	1,236 $\frac{1}{2}$
1896	22,067	2,308	1,697
1897	17,597	1,355	1,266

Correspondence.

Correspondence.

The number of documents received and registered in the Head Office during the year was 128,117, representing an increase of 3,079 as compared with 1896. (Schedule XCIV.)

During the year, 171,331 printed and manuscript letters, schedules, parcels, &c., were despatched, in addition to which 2,090 telegrams were sent and 94 circulars were issued. (See Schedule XCV.)

112,004 letters were received at the various Local Land Board Offices during the year, as against 115,690 received in 1896; 112,730 manuscript and printed letters, parcels, &c., were despatched. Further particulars will be found in Schedule XCVI.

Church and School Lands.

From Part A of Schedule LXXXVI it will be seen that the number of pastoral leases granted under the Church and School Lands Dedication Act of 1880, current on the 31st December, 1897, was 342, comprising an area of 254,600 acres 3 roods 7 perches, and returning a rental of £6,199 9s. 7d. per annum.

From Part B of Schedule LXXXVI it will be observed that the agricultural leases current on that date numbered 334, containing an area of 10,536 acres 2 roods 7 perches, the revenue derived being £1,750 6s. per annum.

From Part A of Schedule LXXXIX it will be seen that 21 pastoral leases were offered at auction, of which 11 containing 6,309½ acres were sold, the annual rental derived being £340 14s., and 2 comprising an area of 2,700 acres were let by tender at a rental of £23 per annum. Of agricultural leases 105 were offered at auction, of which 5 embracing an area of 72 acres 3 roods 6 perches were sold realising a rental of £11 per annum, and 3 containing 10 acres were let by tender at an annual rental of £3 5s. For further details see Schedule LXXXIX, Part B.

Seven applications for mineral leases covering an area of 305 acres were lodged during the year. As 14 applications were outstanding on the 31st December, 1896, the total number requiring action during the year was 21. Of these 19 were granted for an area of 1,125 acres at a rental of £271 5s. One lease of 20 acres was cancelled. The number of these leases current on the 31st December, 1897, was 25; the area included 1,349 acres 0 roods 1 perch, and the rental derived £334 3s. 8d. See Part A of Schedule LXXXVII.

For gold leases, 15 applications were received. Including the applications outstanding at the close of the year 1896, the number requiring action was 31. Twenty were granted, leaving 11 on which action had not been completed. The 20 leases that were granted comprised an area of 149 acres 3 roods 30 perches, the rental obtained being £150. The leases cancelled during the year numbered 20, containing 120 acres 3 roods 26 perches, and 1 lease comprising 5 acres expired. The gold leases current on the 31st December, 1897, numbered 95, the area included being 636 acres 3 roods 33 perches, and the rental obtained £702 16s. 0d. (For further details, see Part B of Schedule LXXXVII.)

The leases current on the 31st December, 1897, which have been granted for building and similar purposes, for specified periods, numbered 44, representing an area of 27 acres 2 roods 8¼ perches, the rental derived being £554 15s. (See Schedule LXXXVIII.)

Three leases of a miscellaneous character, containing 28 acres 1 rood 28 perches, and returning a rental of £10 15s., were also current at the close of the year. (Schedule XC.)

Cost of Survey.

Particulars as to cost of the various classes of measurements effected during the year 1897 by licensed surveyors paid on fees will be found in Schedule XCVIII.

Chief Surveyor.

The Report of the Chief Surveyor and Director of Trigonometrical Survey is appended hereto.

WM. HOUSTON,
Under Secretary.

SCHEDULE I.
REVENUE and Receipts for 1897.

Sales—	£	s.	d.	£	s.	d.
Auction Sales (including payments on account of sales in previous years)	63,513	0	0			
Newcastle Pasturage Reserve Sales	1,454	0	0			
Improvement Purchases, &c.	1,598	0	0			
Deposits, &c., on Conditional Purchases	31,715	0	0			
Instalments (including interest) on Conditional Purchases	903,673	0	0			
Balances on Conditional Purchases	67,027	0	0			
Homestead Selections (Improvements)	1,580	0	0			
Miscellaneous Purchases	7,398	0	0			
Total, Land Sales						1,077,958 0 0
Interest on Land Conditionally Purchased						76,257 0 0
Pastoral Occupation—						
Pastoral Leases (Runs)	245,223	0	0			
Conditional Leases	160,586	0	0			
Annual Leases	44,292	0	0			
Occupation Licenses	109,395	0	0			
Homestead Leases	56,341	0	0			
Snow Leases	831	0	0			
Inferior Leases	259	0	0			
Scrub Leases	455	0	0			
Improvement Leases (Rents)	3,860	0	0			
Homestead Selections (Rents)	10,394	0	0			
Settlement Leases	20,351	0	0			
Artesian Well Leases	836	0	0			
Quit Rents	188	0	0			
Total, Pastoral Occupation						653,011 0 0
Miscellaneous—						
Licenses to cut Timber (1st October to 31st December)	2,512	0	0			
Fees on Transfer of Runs, &c.	935	0	0			
Fees on Preparation and Enrolment of Title Deeds	2,533	0	0			
Survey Fees	23,340	0	0			
Special Leases	17,633	0	0			
All other Receipts	37,728	0	0			
Total, Miscellaneous						84,681 0 0
Total						£1,891,907 0 0

SCHEDULE II.
EXPENDITURE for all Services during 1897.

Heads of Services, &c.	1893 Services.	1894 Services.	1895 Services.	1896 Services.	1897 Services.	Total.
SERVICES IN CONNECTION WITH THE ADMINISTRATION OF THE LAND LAWS.						
Salaries—Permanent Staff	£	s.	d.	£	s.	d.
Do Temporary Employees				264 14 2	150,739 1 7	151,003 15 9
Travelling Expenses (including Equipment and Forage Allowances) ..	6 14 0	5 19 6	3 16 8	11 11 7	1,588 11 9	1,600 3 4
General Expenses				2,255 18 4	26,833 16 4	29,106 4 10
Appraisalment and Inspection Fees			5 15 6	650 16 11	5,256 4 8	5,907 1 7
Fees for attendance at Local Land Courts				495 11 5	850 5 11	1,351 12 10
Rent				443 19 6	4,646 0 1	5,089 19 7
Legal Expenses and special inquiries under Crown Lands Acts			326 0 0	241 14 0	644 15 4	886 9 4
Compensation Claims (excluding payments for Parks, Cemeteries, and Roads) ..				2,780 8 6	2,581 7 0	5,687 15 6
Roads under Roads Act (formerly "Minor Roads")—Compensation, &c.				Cr. 3 0 0	151 12 6	151 12 6
Preparation of Deeds				44 15 9	2,750 8 0	2,747 8 0
Stamp Duties				1,209 19 6	646 0 4	690 16 1
Wages and Provisions for Surveyors' Labourers				1,031 0 11	3,223 0 6	4,438 0 0
Plans and Tracings				315 0 2	11,888 2 2	12,919 3 1
Lithography				74 17 1	3,470 16 9	3,785 16 11
Instruments, Materials, and Books				2 18 6	375 6 8	450 3 9
Survey Fees				7,434 17 7	261 6 5	264 4 11
Photo-lithography (performed at Government Printing Office)				500 0 0	32,642 18 6	40,077 16 1
Land Appeal Court—Salaries and Contingencies				118 6 2	619 2 0	1,119 2 0
Expenses of removal of Officers				210 14 7	5,951 11 5	6,069 17 7
Total Services in connection with the Administration of the Land Laws	6 14 0	5 19 6	335 12 2	18,084 4 8	256,645 6 2	275,077 16 6
SPECIAL SERVICES.						
Public Cemeteries—Fencing, clearing, and acquisition of sites for					1,624 12 6	1,624 12 6
Public Parks and Recreation Reserves—For acquisition of sites for, and improvements, &c.					8,576 10 11	8,576 10 11
Rabbit-proof Fencing				380 13 0	250 17 0	631 10 0
Labour Settlements				138 10 3	34 7 6	172 17 9
Total, Special Services				519 3 3	10,486 7 11	11,005 11 2
Total Expenditure from Consolidated Revenue Votes, &c.	6 14 0	5 19 6	335 12 2	18,603 7 11	267,131 14 1	286,083 7 8

SCHEDULE II.—continued.

Hheads of Services, &c.	1893 Services.	1894 Services.	1895 Services.	1896 Services.	1897 Services.	Total.
OTHER SERVICES PAID FOR FROM LOAN VOTES.						
Dubbo Land Board Office building—Erection of	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Hay do do do	190 0 0	.....	190 0 0
Maitland do do do	1,870 9 6	229 7 6	2,099 17 0
Scrub clearing—West Bogan Scrub	6,778 18 1	1,129 18 10	1,129 18 10
Do Stock Routes	2,232 10 4	5,981 12 4	48,589 9 6
Hay Irrigation Works	97 3 10	8,752 0 4	8,214 2 8
Terragong Swamp Drainage	1,929 1 9	8,849 4 2
Thinning out Forest Reserves (from 1st October, 1897)	3,331 3 7	1,929 1 9
Total paid from Loan Votes	11,169 1 9	63,163 15 9	74,332 17 6
Church and School Lands	3 12 4	925 18 7	929 10 11
Grand Total	£ 6 14 0	5 19 6	335 12 2	29,776 2 0	331,221 8 5	361,345 16 1

SCHEDULE III.

COMPARATIVE Statement of the Expenditure in 1896 and 1897 respectively.

Head of Service.	1896.	1897.	Increase.	Decrease.
SERVICES IN CONNECTION WITH THE ADMINISTRATION OF THE LAND LAWS.				
Salaries	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Travelling Expenses, Equipment and Forage Allowances	161,456 17 1	152,603 19 1	.....	8,852 18 0
General Expenses	32,454 16 3	29,106 4 10	.....	3,348 11 5
Appraisalment and Inspection Fees	5,755 4 6	5,907 1 7	151 17 1	.....
Fees for Attendance at Local Land Courts	6,611 16 9	1,351 12 10	.....	5,260 3 11
Rent	5,896 9 1	5,089 19 7	.....	806 9 6
Legal Expenses and special inquiries under Crown Lands Acts	1,968 18 8	886 9 4	.....	1,082 9 4
Compensation Claims (excluding payments for Public Parks, Recreation Reserves, Cemeteries, and Roads under Roads Acts)	7,987 8 1	5,687 15 6	.....	2,299 12 7
Roads under Roads Act (formerly Minor Roads)—Compensation, &c.	333 3 11	151 12 6	.....	181 11 5
Gratuities to Officers, &c.	3,659 19 1	2,747 8 0	.....	912 11 1
Preparation of Deeds	5 0 0	.....	.....	5 0 0
Stamp Duties	738 11 2	690 16 1	.....	47 15 1
Advertising	4,236 6 0	4,438 0 0	201 14 0	.....
Abatement on Pensions	1,848 9 5	*	.....	1,848 9 5
Wages and Provisions for Surveyors' Labourers	378 11 0	.....	.....	378 11 0
Plans and Tracings by Contract	14,005 8 2	12,919 3 1	.....	1,086 5 1
Lithography	3,649 3 1	3,785 16 11	136 13 10	.....
Instruments, Materials, and Books	1,570 5 4	450 3 9	.....	1,120 1 7
Survey Fees	338 3 2	264 4 11	.....	73 18 3
Photo-lithography (performed at Government Printing Office)	36,980 3 7	40,077 16 1	3,097 12 6	.....
Land Appeal Court (including Salaries, Travelling Expenses, &c.)	1,000 0 0	1,119 2 0	119 2 0	.....
Allowances for extra Cost of Living (in remote districts)	6,539 12 0	6,069 17 7	.....	469 14 5
Expenses of removal of Officers	102 13 5	.....	.....	102 13 5
Expenses of removal of Officers	1,007 0 7	1,730 12 10	723 12 3	.....
Total Services in connection with the Administration of the Land Laws	£ 298,524 0 4	275,077 16 6	4,430 11 8	27,876 15 6
SPECIAL SERVICES.				
Public Cemeteries—Fencing, clearing, and acquisition of sites for	3,328 17 5	1,624 12 6	.....	1,704 4 11
Public Parks and Recreation Reserves—For acquisition of sites for, and improvements, &c.	21,676 11 8	8,576 10 11	.....	13,100 0 9
Rabbit-proof Fencing	3,347 13 1	631 10 0	.....	2,716 3 1
Labour Settlements	Cr. 28 15 11	172 17 9	201 13 8	.....
Total, Special Services	£ 28,324 6 3	11,005 11 2	201 13 8	17,520 8 9
Total Expenditure from Consolidated Revenue Votes, &c.	£ 326,848 6 7	286,083 7 8	4,632 5 4	45,397 4 3
OTHER SERVICES PAID FOR FROM LOAN VOTES.				
Cooma Land Board Office Building—Repairs	369 5 0	.....	.....	369 5 0
Dubbo do do Erection of	3,219 9 1	190 0 0	.....	3,029 9 1
Hay do do do	2,611 9 6	2,099 17 0	.....	511 12 6
Maitland do do do	3,615 15 0	1,129 18 10	.....	2,485 16 2
Scrub-clearing—West Bogan Scrub	1,834 4 9	48,589 9 6	46,755 4 9	.....
Do Stock Routes	2,136 17 4	8,214 2 8	6,077 5 4	.....
Hay Irrigation Works	86 10 8	8,849 4 2	8,762 13 6	.....
Terragong Swamp Drainage .....	.....	1,929 1 9	1,929 1 9	.....
Thinning-out Forest Reserves (from 1st October, 1897) .....	.....	3,331 3 7	3,331 3 7	.....
Total Expenditure from Loan Votes	£ 13,873 11 4	74,332 17 6	66,855 8 11	6,396 2 9
Church and School Lands	327 9 0	929 10 11	602 1 11	.....
Totals	£ 341,049 6 11	361,345 16 1	72,089 16 2	51,793 7 0
			Deduct Decrease	51,793 7 0
			Net Increase	£ 20,296 9 2

* Advertising for the whole of the year 1897 paid for by the Government Printer.

SCHEDULE IV.
SALARIES paid in the year 1897.

	Permanent.		Temporary.		Total.	
	£	s. d.	£	s. d.	£	s. d.
ADMINISTRATIVE BRANCH.						
Head Office Staff	32,274	2 4	79	13 3	32,353	15 7
Local Land Boards	20,482	4 8	96	0 7	20,578	5 3
Land Agents and Assistants	4,983	0 4	.....	.....	4,983	0 4
Inspectors of Conditional Purchases	9,486	5 3	.....	.....	9,486	5 3
Inspectors of Crown Lands, &c. ....	.....	.....	113	17 10	113	17 10
Forest Branch (from 1st October)	468	15 0	119	16 6	588	11 6
Messengers and others	4,051	6 10	16	13 4	4,068	0 2
	71,745	14 5	426	1 6	72,171	15 11
SURVEY BRANCH.						
Head Office Staff	30,636	12 10	777	3 8	31,413	16 6
District Survey Offices	33,302	8 10	361	16 7	33,664	5 5
Salaried Surveyors	10,956	14 5	34	2 10	10,990	17 3
Assistant Surveyors	1,704	17 4	.....	.....	1,704	17 4
Field Assistants	383	6 8	.....	.....	383	6 8
	76,984	0 1	1,173	3 1	78,157	3 2
TRIGONOMETRICAL SURVEY BRANCH.						
Field Staff	1,350	0 0	.....	.....	1,350	0 0
Office Staff	925	0 0	.....	.....	925	0 0
	2,275	0 0	.....	.....	2,275	0 0
TOTAL	151,004	14 6	1,599	4 7	152,603	19 1
LAND APPEAL COURT.						
President and Commissioners	4,000	0 0	.....	.....	*4,000	0 0
Registrar, Clerks, and Messenger	1,019	0 0	.....	.....	1,019	0 0
	5,019	0 0	.....	.....	5,019	0 0
CHURCH AND SCHOOL LANDS.						
Clerks	666	13 4	.....	.....	666	13 4
Ranger .....	.....	.....	64	8 0	64	8 0
	666	13 4	64	8 0	731	1 4
GRAND TOTAL	£ 156,690	7 10	1,663	12 7	158,354	0 5

* Salaries of President and Commissioners (£4,000) paid from Special Appropriation under 55 Victoria No. 24.

SCHEDULE V.

STATEMENT showing the strength of the Staff and Annual Rate of Salaries as on the 31st December, 1896, and 31st December, 1897, respectively.

Branches, &c.	Numbers.		Salaries.	
	31st Dec., 1896.	31st Dec., 1897.	31st Dec., 1896.	31st Dec., 1897.
Administrative Branch (Head Office)	167	166	£ 32,922	£ 33,324
Survey Branch (Head Office)	131	138	29,094	30,601
Trigonometrical Branch	8	8	2,275	2,275
Local Land Boards	133	131	31,877	30,344
District Survey Offices	187	179	48,568	46,892
Land Agents and Assistants	6	*34	1,612	10,015
Land Appeal Court	7	7	‡5,019	5,019
Church and School Lands	3	3	750	£600
Forest Branch .....	.....	†23	.....	2,783
Totals	642	639	152,117	161,853

* Twenty-eight officers, with salaries aggregating £8,550, transferred from Justice Department. † Transferred from Mines Department from 1st October, 1897. ‡ Salaries of President and Commissioners (£4,000) paid from Special Appropriation under 55 Victoria No. 24. § Salaries of Church and School Lands Branch paid from Public Instruction Endowment Account to 2nd December, 1897, when Church and School Lands Act of 1897 became law.

SCHEDULE VI.

STATEMENT of Travelling Expenses and Fees paid in connection with Local Land Board Meetings during the year 1897.

District.	Particulars.	Amount.	Total.
Armidale	Chairman's and clerk's travelling expenses	£ 405 0 6	£ 959 11 4
	Members' travelling expenses	180 18 6	
	Members' fees	348 12 0	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	25 0 4	
Bourke	Chairman's and clerk's travelling expenses	476 1 2	1,405 14 0
	Members' travelling expenses	131 10 6	
	Members' fees	598 10 0	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	199 12 4	

SCHEDULE VI.—*continued.*

District.	Particulars	Amount.	Total.
		£ s. d.	£ s. d.
Dubbo.....	Chairman's and clerk's travelling expenses	225 11 10	
	Members' travelling expenses	71 14 3	
	Members' fees	361 14 6	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	240 9 3	899 9 10
Forbes	Chairman's and clerk's travelling expenses	367 19 10	
	Members' travelling expenses	42 14 2	
	Members' fees	401 2 0	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	64 14 11	876 10 11
Goulburn	Chairman's and clerk's travelling expenses	565 6 3	
	Members' travelling expenses	166 4 9	
	Members' fees	393 15 0	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	18 5 11	1,143 11 11
Grafton	Chairman's and clerk's travelling expenses	349 3 8	
	Members' travelling expenses	59 8 6	
	Members' fees	213 3 0	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	4 2 3	625 17 5
Hay	Chairman's and clerk's travelling expenses	468 6 2	
	Members' travelling expenses	27 19 0	
	Members' fees	349 15 0	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	177 4 0	1,023 4 2
Maitland.....	Chairman's and clerk's travelling expenses	270 0 0	
	Members' travelling expenses	106 2 1	
	Members' fees	191 2 0	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	45 14 5	612 18 6
Moree	Chairman's and clerk's travelling expenses	279 15 9	
	Members' travelling expenses	108 6 6	
	Members' fees	186 18 0	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	45 7 6	620 7 9
Orange	Chairman's and clerk's travelling expenses	386 5 11	
	Members' travelling expenses	162 2 1	
	Members' fees	417 18 0	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	61 7 3	1,027 13 3
Sydney	Chairman's and clerk's travelling expenses	94 2 2	
	Members' travelling expenses	8 18 8	
	Members' fees	178 10 0	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	18 19 11	300 10 9
Tamworth	Chairman's and clerk's travelling expenses	306 2 3	
	Members' travelling expenses	160 1 5	
	Members' fees	361 4 0	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	118 12 4	946 0 0
Wagga Wagga	Chairman's and clerk's travelling expenses	414 6 5	
	Members' travelling expenses	125 10 3	
	Members' fees	744 9 0	
	Fees and travelling expenses of surveyors, inspectors, and witnesses	116 16 3	1,401 1 11
	Grand Total .....	.....	£11,842 11 9

SUMMARY.

	£ s. d.
Chairmen's and clerks' travelling expenses	4,608 1 11
Members' travelling expenses	1,351 10 8
Members' fees	4,746 12 6
Fees and travelling expenses of surveyors, inspectors, and witnesses	1,136 6 8
	<u>£11,842 11 9</u>

SCHEDULE VII.

STATEMENT of Revenue and Expenditure for the years 1886 to 1897 inclusive, showing the percentage of the latter to Revenue.

Year.	Total Expenditure.	*Extraordinary Expenses deducted.	Net Expenditure.	Decrease as compared with 1886.	Revenue.	Percentage of Net Expenditure to Revenue.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£	per cent.
1886	555,873 5 10	.....	555,873 5 10	.....	1,599,714	34·00
1887	684,312 1 7	175,269 13 8	509,042 7 11	46,830 17 11	2,323,681	21·00
1888	472,336 8 2	96,355 14 4	375,980 13 10	179,892 12 0	2,154,409	17·00
1889	399,754 10 4	41,407 19 1	358,346 11 3	197,526 14 7	2,067,385	17·00
1890	421,242 14 9	33,719 17 5	387,522 17 4	168,350 8 6	2,165,528	17·00
1891	435,156 2 9	26,778 1 6	408,378 1 3	147,495 4 7	2,197,090	18·00
1892	410,842 0 8	43,023 17 5	367,818 3 3	188,055 2 7	2,154,717	17·00
1893	379,531 10 11	57,346 2 0	322,185 8 11	233,687 16 11	2,147,144	15·00
1894	336,835 19 2	34,866 19 11	301,968 19 3	253,904 6 7	2,075,885	14·54
1895	320,308 7 9	30,397 8 4	289,910 19 5	265,962 6 8	1,960,605	14·78
1896	341,049 6 11	56,388 1 1	284,661 5 10	271,212 0 0	1,882,857	15·11
1897	361,345 16 1	96,012 19 5	265,332 16 8	290,540 9 2	1,891,907	14·02
	£ 5,118,588 4 11	691,566 14 2	4,427,021 10 9	.....	24,620,922	

* Includes expenditure mainly in connection with the administration of the Forest Branch, the Rabbit Branch, Roads under Public Roads Acts, Public Parks and Recreation Reserves, Labour Settlements, and Land Appeal Court, and works paid from Loan Votes, not incurred in 1886.

SCHEDULE VIII.

RETURN showing the Number and Area of Conditional Purchases applied for during 1897, with the amount of Deposits and Survey Fees received.

Local Land Board District and Land District.	Class of Land.	Section 26.				Section 42.				Section 47.				Total in each Class.															
		No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.												
		a.	r.	p.	£	s.	d.	£	s.	d.	a.	r.	p.	£	s.	d.	£	s.	d.										
Armidale—	Ordinary lands	20	2,465	0 0	246	10 0	106	17 6	26	4,811	1 20	481	2 9	77	2 0	...	46	7,276	1 20	727	12 9	183	19 6						
Armidale	Special areas...	7	226	3 15	59	13 9	20	12 6	5	221	1 0	44	5 0	15	9 5	...	12	448	0 15	103	18 9	36	1 11						
Glen Innes	Ordinary lands	7	770	0 0	77	0 0	36	7 6	20	4,927	2 0	492	15 0	41	9 3	...	27	5,097	2 0	569	15 0	77	16 9						
Glen Innes	Special areas...	2	240	2 0	36	1 6	11	2 6	...	...	...	...	...	...	...	...	2	240	2 0	36	1 6	11	2 6
Inverell	Ordinary lands	21	2,523	0 0	252	6 0	111	5 0	13	872	3 0	87	5 6	40	14 7	...	34	3,395	3 0	339	11 6	151	19 7						
Inverell	Special areas...	9	1,026	0 0	161	3 0	48	2 6	2	141	1 0	23	14 5	7	0 8	...	11	1,167	1 0	184	17 5	55	3 2						
Tenterfield	Ordinary lands	15	795	0 0	79	10 0	64	12 6	10	679	0 0	67	19 0	23	14 5	1	43	2 0	8	13 0	4	2 6	26	1,517	2 0	156	2 0	92	9 5
Tenterfield	Special areas...	5	224	0 20	37	4 5	20	6 0	5	114	1 0	18	12 1	11	12 6	...	10	333	1 20	55	16 0	31	18 6						
Tenterfield	Ordinary lands	4	378	0 0	37	16 0	20	5 0	4	560	3 0	56	1 6	10	8 9	...	8	938	3 0	93	17 6	30	13 9						
	Total	90	8,648	1 35	987	4 8	439	11 0	85	12,328	0 20	1,271	15 3	227	11 7	1	43	2 0	8	13 0	4	2 6	176	21,020	0 15	2,267	12 11	671	5 1
Bourke—	Ordinary lands	3	1,560	0 0	156	0 0	27	12 6	4	7,680	0 0	768	0 0	25	2 6	...	7	9,240	0 0	924	0 0	52	15 0						
Bourke—	Total	3	1,560	0 0	156	0 0	27	12 6	4	7,680	0 0	768	0 0	25	2 6	...	7	9,240	0 0	924	0 0	52	15 0						
Dubbo—	Ordinary lands	11	1,638	0 0	163	16 0	64	0 0	11	15,623	2 0	1,562	7 0	111	18 10	1	320	0 0	64	0 0	8	0 0	23	17,581	2 0	1,790	3 0	183	18 10
Dubbo	Ordinary lands	10	880	0 0	88	0 0	50	0 0	31	10,268	1 0	1,026	17 0	161	18 2	...	41	11,143	1 0	1,114	17 0	211	18 2						
Dubbo	Special areas...	...	...	...	...	...	...	...	2	206	0 0	30	18 0	7	19 5	...	2	206	0 0	30	18 0	7	19 5
Nyngan	Ordinary lands	3	1,100	0 0	110	0 0	24	10 0	2	483	0 0	48	6 0	10	11 11	...	5	1,583	0 0	158	6 0	35	1 11						
Warren	Ordinary lands	5	1,812	0 0	181	4 0	40	0 0	13	8,300	0 0	839	0 0	57	16 6	...	18	10,202	0 0	1,020	4 0	97	16 6						
	Total	29	5,430	0 0	543	0 0	178	10 0	59	34,970	3 0	3,507	8 0	350	4 10	1	320	0 0	64	0 0	8	0 0	89	40,720	3 0	4,114	8 0	536	14 10
Forbes—	Ordinary lands	2	273	0 0	27	6 0	11	7 6	8	4,087	1 0	498	14 6	53	4 11	...	10	4,360	1 0	436	0 6	64	12 5						
Forbes—	Ordinary lands	3	210	0 0	21	0 0	14	5 0	...	...	...	...	...	...	...	...	3	210	0 0	21	0 0	14	5 0
Forbes—	Ordinary lands	4	496	2 0	49	13 0	21	15 0	4	2,030	0 0	203	0 0	27	19 5	...	8	2,526	2 0	252	13 0	49	14 5						
Forbes—	Ordinary lands	...	...	...	...	...	...	...	15	2,997	2 0	299	15 0	70	8 4	...	15	2,997	2 0	299	15 0	70	8 4
Forbes—	Special areas...	4	1,188	0 0	178	4 0	30	2 6	12	2,137	1 0	327	18 0	52	12 1	...	16	3,325	1 0	506	2 0	82	14 7						
Grenfell	Ordinary lands	1	105	0 0	10	0 0	5	5 0	1	44	0 0	4	8 0	3	1 11	...	2	144	0 0	14	8 0	8	6 11						
Grenfell	Special areas...	1	67	0 0	10	1 0	4	15 0	1	53	3 3	8	1 3	3	5 8	...	2	120	3 0	18	2 3	8	0 8						
Parkes	Ordinary lands	3	280	0 0	28	0 0	15	0 0	11	3,223	3 0	322	7 6	55	8 5	...	14	3,503	3 0	350	7 6	70	8 5						
Parkes	Special areas...	4	153	3 20	27	5 0	14	12 6	7	874	0 30	132	13 6	26	4 9	...	11	1,028	0 10	159	18 6	40	17 3						
	Total	22	2,768	1 20	351	9 0	117	2 6	59	15,417	2 30	1,706	17 9	292	5 6	...	81	18,216	0 10	2,058	6 9	409	8 0						
Goulburn—	Ordinary lands	4	180	0 0	18	0 0	16	10 0	...	...	...	...	...	...	...	...	4	180	0 0	18	0 0	16	10 0
Goulburn—	Special areas...	2	77	2 20	42	17 3	8	0 6	1	40	2 0	24	6 0	3	1 11	...	3	118	0 20	67	3 3	11	2 5						
Bombala	Ordinary lands	5	625	0 0	62	10 0	27	7 6	2	200	0 0	20	0 0	7	10 0	...	7	825	0 0	82	10 0	34	17 6						
Bombala	Special areas...	9	470	0 0	95	10 0	38	7 6	...	...	...	...	...	...	...	...	9	470	0 0	95	10 0	38	7 6
Boorowa	Ordinary lands	8	589	2 0	58	19 0	38	10 0	8	1,335	1 0	133	10 6	33	5 9	...	16	1,924	3 0	192	9 6	71	15 9						
Boorowa	Special areas...	3	361	0 0	63	3 9	16	5 0	2	133	2 0	20	0 6	7	0 8	...	5	494	2 0	88	4 3	23	5 8						
Braidwood	Ordinary lands	7	590	0 0	59	0 0	33	15 0	4	210	0 0	21	0 0	12	18 9	...	11	800	0 0	80	0 0	46	13 9						
Braidwood	Special areas...	3	135	0 9	21	5 8	16	10 0	...	...	...	...	...	...	...	...	3	135	0 9	21	5 8	16	10 0

SCHEDULE VIII—continued.

Local Land Board District and Land District.	Class of Land.	Section 26.				Section 42.				Section 47.				Total in each Class.			
		No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.
<i>Goulburn—contd.</i>			a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.
Cooma	Ordinary land	14	859 0 0	85 18 0	61 17 6	10	599 2 0	59 19 0	26 7 6	...	.....	.....	.....	24	1,458 2 0	145 17 0	88 5 0
	Special areas...	5	615 2 0	110 0 8	25 5 0	6	195 1 4	39 17 0	14 3 2	...	.....	.....	.....	11	840 3 4	149 17 8	39 8 2
Eden	Ordinary lands	8	600 0 0	60 0 0	37 17 6	2	90 0 0	9 0 0	6 3 9	...	.....	.....	.....	10	690 0 0	69 0 0	44 1 3
	Special areas...	1	18 0 0	5 0 4	2 18 0	.....	.....	.....	.....	.....	.....	.....	.....	1	18 1 0	5 0 4	2 18 0
Goulburn	Ordinary lands	6	324 0 0	32 8 0	25 17 6	4	168 0 0	16 16 0	12 3 9	...	.....	.....	.....	10	492 0 0	49 4 0	38 1 3
Gunning	Ordinary lands	3	215 1 0	21 10 6	13 17 6	.....	.....	.....	.....	.....	.....	.....	.....	3	215 1 0	21 10 6	13 17 6
Moruya	Ordinary lands	11	821 0 0	82 2 0	50 17 6	4	202 0 0	20 4 0	12 16 11	...	.....	.....	.....	15	1,023 0 0	102 6 0	63 14 5
	Special areas...	2	69 2 30	11 3 11	7 10 0	.....	.....	.....	.....	.....	.....	.....	.....	2	69 2 30	11 3 11	7 10 0
Moss Vale	Ordinary lands	2	150 0 0	18 0 0	10 5 0	2	240 0 0	24 0 0	7 17 6	...	.....	.....	.....	4	420 0 0	42 0 0	18 2 6
Queanbeyan	Ordinary lands	7	460 0 0	46 0 0	32 0 0	1	80 0 0	8 0 0	2 17 0	...	.....	.....	.....	8	540 0 0	54 0 0	31 17 0
Yass	Ordinary lands	11	2,060 0 0	206 0 0	68 0 0	.....	.....	.....	.....	.....	.....	.....	.....	11	2,060 0 0	206 0 0	68 0 0
	Special areas...	1	257 2 0	38 12 6	7 5 0	.....	.....	.....	.....	.....	.....	.....	.....	1	257 2 0	38 12 6	7 5 0
Young	Ordinary lands	2	411 2 0	41 3 0	13 5 0	9	2,296 1 10	229 12 8	18 0 1	1	80 0 0	16 0 0	5 0 0	12	2,787 3 10	286 15 8	36 5 1
	Special areas...	18	2,109 1 8	363 6 10	88 7 2	3	81 0 14	20 12 4	6 15 0	.....	.....	.....	.....	21	2,190 1 22	333 19 2	95 2 2
	Total	132	12,059 0 27	1,547 11 5	634 8 2	58	5,871 1 28	646 18 0	171 1 9	1	80 0 0	16 0 0	5 0 0	191	18,010 2 15	2,210 9 5	810 9 11
<i>Grafton—</i>																	
Bellingen	Ordinary lands	12	580 0 0	58 18 0	50 17 6	.....	.....	.....	.....	1	73 3 0	14 15 0	4 17 6	13	662 3 0	73 13 0	55 15 0
	Special areas...	.....	.....	.....	.....	1	40 0 0	6 0 0	3 0 0	.....	.....	.....	.....	1	40 0 0	6 0 0	3 0 0
Casino	Ordinary lands	9	1,181 3 0	118 3 6	49 15 0	3	1,616 3 0	161 13 6	5 13 2	.....	.....	.....	.....	12	2,798 2 0	279 17 0	49 15 0
	Special areas...	7	253 0 28	73 10 6	24 7 0	2	19 2 20	5 13 2	2 15 6	.....	.....	.....	.....	9	272 3 8	79 3 8	27 2 6
Grafton	Ordinary lands	18	1,130 0 0	113 0 0	80 7 6	1	40 0 0	4 0 0	3 0 0	1	40 0 0	8 0 0	4 0 0	20	1,210 0 0	125 0 0	87 7 0
	Special areas...	1	26 3 0	5 7 0	3 7 0	.....	.....	.....	.....	.....	.....	.....	.....	1	26 3 0	5 7 0	3 7 0
Kempsey	Ordinary lands	1	40 0 0	4 0 0	4 0 0	1	80 0 0	8 0 0	3 15 0	.....	.....	.....	.....	2	120 0 0	12 0 0	7 15 0
ismore	Ordinary lands	7	522 1 0	52 4 6	33 15 0	2	133 1 0	13 6 6	6 18 9	.....	.....	.....	.....	9	655 2 0	65 11 0	40 13 9
	Special areas...	27	1,735 1 17	374 19 8	114 3 0	4	169 3 8	29 11 4	10 3 2	.....	.....	.....	.....	31	1,905 0 25	404 11 0	124 6 2
Murwillumbah	Ordinary lands	7	472 0 0	47 4 0	32 5 0	1	79 0 0	7 18 0	3 15 0	.....	.....	.....	.....	8	551 0 0	55 2 0	36 0 4
	Special areas...	15	354 3 34	84 5 1	34 19 4	2	6 0 4	2 8 3	1 10 0	.....	.....	.....	.....	17	360 3 38	86 17 4	36 9 4
Port Macquarie	Ordinary lands	4	200 0 0	20 0 0	17 0 0	.....	.....	.....	.....	.....	.....	.....	.....	4	200 0 0	20 0 0	17 0 0
	Total	108	6,505 0 39	951 16 3	444 16 4	17	2,184 1 32	238 10 9	34 17 5	2	113 3 0	22 15 0	8 17 6	127	8,803 1 31	1,213 2 0	488 11 3
<i>Hay—</i>																	
Baranald South	Ordinary lands	3	639 0 0	63 18 6	18 12 6	2	826 0 0	82 12 0	13 14 5	.....	.....	.....	.....	5	1,465 0 0	146 10 6	32 6 11
	Special areas...	.....	.....	.....	.....	1	240 0 0	42 0 0	5 5 0	.....	.....	.....	.....	1	240 0 0	42 0 0	5 5 0
Dealliquin	Ordinary lands	4	3,760 2 0	376 1 0	44 7 6	7	1,820 3 0	182 1 6	37 10 2	.....	.....	.....	.....	11	5,581 1 0	558 2 6	81 17 8
	Special areas...	6	2,992 2 0	485 15 0	58 5 0	3	730 1 0	129 3 6	14 6 11	.....	.....	.....	.....	9	3,722 3 0	614 18 6	70 11 11
Hay	Ordinary lands	3	1,219 3 0	121 19 6	25 10 0	6	4,967 2 0	496 15 0	43 0 9	.....	.....	.....	.....	9	6,187 1 0	618 14 6	74 10 9
	Special areas...	.....	.....	.....	.....	1	200 0 0	30 0 0	4 17 6	.....	.....	.....	.....	1	200 0 0	30 0 0	4 17 6
Hillston	Ordinary lands	5	720 0 0	72 0 0	29 0 0	3	330 0 0	33 0 0	11 6 11	.....	.....	.....	.....	8	1,050 0 0	105 0 0	40 6 11
	Total	21	9,331 3 0	1,119 14 0	173 15 0	23	9,114 2 0	995 12 0	136 1 8	.....	.....	.....	.....	44	18,446 1 0	2,115 6 0	303 16 8
<i>Maitland—</i>																	
Cassilis	Ordinary lands	7	1,141 3 0	114 3 6	41 12 6	11	1,884 3 0	188 11 0	30 3 10	.....	.....	.....	.....	18	3,025 2 0	302 14 6	71 16 4
	Special areas...	1	240 0 0	36 0 0	7 0 0	.....	.....	.....	.....	.....	.....	.....	.....	1	240 0 0	36 0 0	7 0 0

SCHEDULE VIII—continued.

Local Land Board District and Land District.	Class of Land.	Section 26.			Section 42.			Section 47.			Total in each Class.		
		No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.
Maitland—contd.			a. r. p.	£ s. d.	£ s. d.	a. r. p.	£ s. d.	£ s. d.	a. r. p.	£ s. d.	£ s. d.	£ s. d.	
Gosford	Ordinary lands	4	255 0 0	25 10 0	18 2 6	2	140 0 0	14 0 0	6 18 9	1	40 0 0	8 0 0	4 0 0
	Special areas...	3	39 3 11	7 18 7	7 4 0	...	.....	.....	.....	.....	.....	.....
Maitland	Ordinary lands	1	84 0 0	8 8 0	5 2 6	1	60 0 0	6 0 0	3 7 6	...	.....	.....
	Special areas...	2	94 1 30	23 15 0	7 10 6	1	22 2 0	5 12 6	2 7 3	...	.....	.....
Muswellbrook ...	Ordinary lands	4	250 0 0	25 0 0	17 12 6	1	50 0 0	10 0 0	4 5 0
	Special areas...	2	.....	.....	.....	2	80 0 0	20 0 0	6 0 0	...	.....	.....
Paterson	Ordinary lands	1	250 0 0	25 0 0	7 2 6	1	100 0 0	10 0 0	3 18 9	...	.....	.....
Scone	Ordinary lands	7	865 2 0	86 11 0	37 7 6	...	.....	.....	.....	...	.....	.....
Singleton	Ordinary lands	2	80 0 0	8 0 0	8 0 0	1	80 0 0	16 0 0	5 0 0
Stroud	Ordinary lands	5	390 0 0	39 0 0	24 0 0	1	40 0 0	4 0 0	3 0 0	1	50 0 0	10 0 0	3 3 9
Taree	Ordinary lands	9	1,028 0 0	102 16 0	45 5 0	1	60 0 0	6 0 0	3 7 6	...	.....	.....
	Special areas...	2	118 0 0	17 14 0	9 2 6	10	1,088 0 0	108 16 0	43 12 6
Wollombi	Ordinary lands	3	120 0 0	12 0 0	12 0 0	3	250 0 0	25 0 0	11 1 3	...	.....	.....
	Total	51	4,956 2 1	531 16 1	247 2 0	23	2,637 1 0	279 3 6	70 4 10	4	220 0 0	44 0 0	16 8 9
Moree—													
Bingara	Ordinary lands	4	1,240 0 0	124 0 0	28 15 0	2	440 0 0	44 0 0	10 2 6	...	.....	.....
Moree	Ordinary lands	9	3,060 0 0	306 0 0	69 5 0	7	4,452 0 0	445 4 0	45 3 10	...	.....	.....
	Special areas...	1	574 0 0	86 2 0	10 2 6	1	372 0 0	55 16 0	6 7 6	...	.....	.....
Walgett	Ordinary lands	6	2,607 0 0	260 14 0	52 17 6	4	2,657 0 0	265 14 0	15 18 10	...	.....	.....
Warialda	Ordinary lands	7	2,044 3 0	204 10 0	51 15 0	12	2,358 0 0	235 16 0	50 18 6	...	.....	.....
	Special areas...	1	537 1 0	80 14 0	9 17 6	2	600 0 0	91 10 0	10 4 5	...	.....	.....
	Total	28	10,063 0 0	1,062 0 0	222 12 6	28	10,879 0 0	1,138 0 0	138 15 7	...	.....	.....
Orange—													
Bathurst	Ordinary lands	14	1,491 3 0	149 3 6	71 12 6	3	666 0 0	66 12 0	9 18 9	...	.....	.....
Carcoar	Ordinary lands	6	280 0 0	28 0 0	25 0 0	4	240 0 0	24 0 0	13 2 6	...	.....	.....
	Special areas...	1	71 1 0	10 13 9	4 17 6	1	62 1 0	9 6 9	3 9 5	...	.....	.....
Cowra	Ordinary lands	3	210 0 0	21 0 0	14 0 0	1	130 0 0	13 0 0	4 4 5	...	.....	.....
	Special areas...	4	431 0 0	76 6 3	19 0 0	1	16 2 20	4 3 4	2 0 6	2	32 1 24	16 4 0	4 15 0
Lithgow	Ordinary lands	3	215 0 0	21 10 0	13 15 0	1	141 3 0	14 3 6	4 8 2	...	.....	.....
	Special areas...	5	450 1 0	67 10 9	25 7 6	3	120 0 0	18 0 0	9 0 0	...	.....	.....
Molong	Ordinary lands	14	2,103 2 0	210 7 0	79 7 6	8	1,428 3 0	142 17 6	27 17 0	...	.....	.....
	Special areas...	10	1,180 3 0	197 2 3	53 7 6	5	366 2 19	61 8 11	15 2 8	1	42 0 0	12 12 0	4 2 6
Mudgee	Ordinary lands	14	1,345 0 0	134 10 0	68 7 6	5	317 3 0	31 15 6	11 15 0	...	.....	.....
	Special areas...	3	246 1 0	55 0 0	13 18 0	19	1,662 3 0	166 5 6	80 2 6
Orange	Ordinary lands	...	.....	.....	.....	2	80 0 0	8 0 0	5 0 0	...	.....	.....
	Special areas...	1	49 2 0	7 8 6	4 5 0	3	246 1 0	55 0 0	13 18 0
Rylstone	Ordinary lands	15	1,375 0 0	137 10 0	74 5 0	7	579 0 0	57 18 0	21 7 6	...	.....	.....
Wellington	Ordinary lands	5	665 0 0	66 10 0	27 17 6	2	230 0 0	23 0 0	10 17 7	...	.....	.....
	Special areas...	1	125 3 0	18 17 3	5 12 6	1	125 3 0	18 17 3	5 12 6
	Total	99	10,240 0 0	1,201 9 3	500 13 0	44	4,378 2 39	474 5 6	138 3 6	3	74 1 24	28 16 0	8 17 6
Sydney—													
Milton	Ordinary lands	3	166 0 0	16 12 0	13 5 0	1	45 0 0	4 10 0	3 1 11	...	.....	.....
Nowra	Ordinary lands	1	43 0 0	8 12 0	3 1 11
Parramatta	Ordinary lands	3	132 0 0	13 4 0	12 7 6	3	132 0 0	13 4 0	12 7 6

SCHEDULE VIII—continued.

Local Land Board District and Land District.	Class of Land.	Section 26.			Section 42.			Section 47.			Total in each Class.						
		No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.	No.	Area.	Deposit.	Survey Fee.				
			a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.		a. r. p.	£ s. d.	£ s. d.				
Sydney—contd.	Ordinary lands	1	40 0 0	4 0 0	4 0 0	...	.....	.....	.....	1	52 2 0	10 10 0	4 7 6	2	92 2 0	14 10 0	8 7 6
Penrith	Ordinary lands	2	80 0 0	8 0 0	8 0 0	1	50 0 0	5 0 0	.....	...	.....	.....	.....	3	130 0 0	13 0 0	8 0 0
Picton	Special areas...	1	42 0 0	6 6 0	4 2 6	...	.....	.....	.....	...	.....	.....	.....	1	42 0 0	6 6 0	4 2 6
Windsor.....	Ordinary lands	19	1,677 3 11	167 16 0	91 10 0	6	364 0 0	36 8 0	20 1 3	7	420 0 0	84 0 0	31 0 0	32	2,461 3 11	288 4 0	142 11 3
	Special areas...	2	98 1 30	32 7 0	8 12 6	...	.....	.....	.....	...	.....	.....	.....	2	98 1 30	32 7 0	8 12 6
	Total	31	2,236 1 1	248 5 0	141 17 6	8	459 0 0	45 18 0	23 3 2	9	515 2 0	103 2 0	38 9 5	48	3,210 3 1	397 5 0	203 10 1
Tamworth—																	
Coonabarrabran...	Ordinary lands	5	390 0 0	39 0 0	23 5 0	5	2,158 0 0	215 16 0	14 5 1	...	.....	.....	.....	10	2,548 0 0	254 16 0	37 10 1
Gunnedah	Ordinary lands	4	520 0 0	52 0 0	22 10 0	7	1,176 3 0	117 13 6	33 5 9	...	.....	.....	.....	11	1,696 3 0	169 13 6	55 15 9
	Special areas...	7	277 1 18	66 19 11	23 0 10	...	.....	.....	.....	...	.....	.....	.....	7	277 1 18	66 19 11	23 0 10
Murrurundi	Ordinary lands	4	650 0 0	65 0 0	23 15 0	4	360 0 0	36 0 0	14 18 2	...	.....	.....	.....	8	1,010 0 0	101 0 0	38 13 2
	Special areas...	4	452 2 30	89 14 3	15 15 0	3	340 2 0	57 19 3	11 10 8	...	.....	.....	.....	7	793 0 30	147 3 6	27 5 8
Narrabri	Ordinary lands	9	1,218 0 0	121 16 0	48 0 0	17	12,210 0 0	1,221 0 0	57 17 0	...	.....	.....	.....	26	13,428 0 0	1,342 16 0	105 17 0
	Special areas...	5	527 3 36	103 12 0	21 0 0	...	.....	.....	.....	...	.....	.....	.....	5	527 3 36	103 12 0	21 0 0
Tamworth	Ordinary lands	29	6,105 0 0	610 10 0	190 7 6	12	1,026 2 0	102 13 0	30 3 11	1	320 0 0	64 0 0	8 0 0	42	7,451 2 0	777 3 0	228 11 5
	Special areas...	10	1,026 2 0	192 11 0	44 18 4	1	64 0 0	11 4 0	3 9 5	...	.....	.....	.....	11	1,090 2 0	203 15 0	48 7 9
	Total	77	11,167 2 4	1,341 3 2	412 11 8	49	17,335 3 0	1,761 15 9	165 10 0	1	320 0 0	64 0 0	8 0 0	127	28,823 1 4	3,166 18 11	586 1 8
Wagga Wagga—																	
Albury	Ordinary lands	3	275 0 0	27 10 0	14 10 0	2	464 0 10	46 8 2	10 8 2	...	.....	.....	.....	5	739 0 10	73 18 2	24 18 2
	Special areas...	4	670 2 0	156 1 6	23 17 6	1	150 0 0	30 0 0	4 8 2	...	.....	.....	.....	5	820 2 0	186 1 6	28 5 8
Cootamundra	Ordinary lands	...	.....	.....	.....	1	391 0 0	39 2 0	.....	...	.....	.....	.....	1	391 0 0	39 2 0	.....
	Special areas...	2	246 1 20	38 1 0	9 17 6	3	183 2 0	27 10 6	10 4 5	...	.....	.....	.....	5	429 3 20	65 11 6	20 1 11
do Central	Special areas...	1	287 0 0	57 8 0	7 12 6	...	.....	.....	.....	...	.....	.....	.....	1	287 0 0	57 8 0	7 12 6
Corowa	Ordinary lands	1	320 0 0	32 0 0	8 0 0	8	4,458 0 0	445 17 0	60 3 10	...	.....	.....	.....	9	4,778 0 0	477 17 0	68 3 10
	Special areas...	8	1,308 3 34	199 11 0	48 2 6	2	82 1 30	18 17 0	5 17 0	...	.....	.....	.....	10	1,391 1 24	218 8 0	53 19 6
Gundagai	Ordinary lands	6	1,600 0 0	160 0 0	44 0 0	1	238 3 0	23 17 6	.....	1	120 0 0	24 0 0	5 10 0	8	1,958 3 0	207 17 6	49 10 0
Narrandera	Ordinary lands	1	99 0 0	9 18 0	5 5 0	6	2,323 0 0	232 6 0	34 16 3	...	.....	.....	.....	7	2,422 0 0	242 4 0	40 1 3
	Special areas...	8	2,833 2 0	428 2 6	61 7 6	5	1,668 0 0	349 12 0	29 5 2	...	.....	.....	.....	13	4,501 2 0	777 14 6	90 12 8
Tumbarumba ...	Ordinary lands	5	410 0 0	41 0 0	24 2 6	1	270 0 0	27 0 0	5 10 8	...	.....	.....	.....	6	680 0 0	68 0 0	29 13 2
	Special areas...	3	200 0 0	33 0 0	12 0 0	1	195 3 0	29 7 3	5 12 6	...	.....	.....	.....	4	395 3 0	62 7 3	17 12 6
Tumut	Ordinary lands	4	495 0 0	49 10 0	21 7 6	...	.....	.....	.....	1	90 1 0	18 1 0	5 5 0	5	585 1 0	67 11 0	26 12 6
Urana	Ordinary lands	1	80 0 0	8 0 0	5 0 0	4	1,835 3 0	183 11 6	26 16 4	...	.....	.....	.....	5	1,915 3 0	191 11 6	31 16 4
	Special areas...	9	3,827 3 10	697 0 9	77 16 6	4	451 1 0	71 8 0	14 7 8	...	.....	.....	.....	13	4,279 0 10	768 8 9	92 4 2
Wagga Wagga...	Ordinary lands	5	463 2 0	46 7 0	25 7 6	7	890 0 0	89 0 0	24 1 11	...	.....	.....	.....	12	1,353 2 0	135 7 0	49 9 5
	Special areas...	17	2,999 0 0	527 15 1	103 7 6	10	1,921 3 0	351 7 9	48 2 2	...	.....	.....	.....	27	4,920 3 0	879 2 10	151 9 8
	Total	78	16,115 2 24	2,511 4 10	491 14 0	56	15,523 1 0	1,965 4 8	279 14 3	2	210 1 0	42 1 0	10 15 0	136	31,849 0 24	4,518 10 6	782 3 3
	Grand Total...	769	101,081 3 31	12,552 13 8	4,032 6 2	513	138,809 3 29½	14,799 9 2	2,052 16 7	24	1,897 1 24	393 7 0	108 10 8	1,306	241,789 1 4½	27,745 9 10	6,193 13 5

SCHEDULE IX.

CONDITIONAL PURCHASES (Ordinary and within Special Areas) applied for in each Division, Land Board and Land District, during 1897.

Local Land Board District	Land District.	Section 26. (O C P)			Section 42. (A C P)			Section 47. (N R C P)			Total No of Applications	Total Area applied for			
		No	Area		No.	Area.		No.	Area.			a.	r. p.		
EASTERN DIVISION.															
			a.	r. p.		a.	r. p.		a.	r.	p.		a.	r.	p.
Armidale	Armidale	27	2,691	3 15	31	5,032	2 20	...	...	...	...	58	7,724	1 35
	Glen Innes	9	1,010	2 0	20	4,927	2 0	...	...	...	...	29	5,938	0 0
	Inverell	30	3,549	0 0	15	1,014	0 0	...	...	...	...	45	4,563	0 0
	Penterfield	20	1,019	0 20	15	793	1 0	1.	43	2 0	...	36	1,855	3 20	
	Walcha	4	378	0 0	4	560	3 0	...	...	...	...	8	938	3 0
Goulburn	Bega	6	257	2 20	1	40	2 0	...	...	...	...	7	298	0 20
	Bombala	14	1,095	0 0	2	200	0 0	...	...	...	...	16	1,295	0 0
	Braidwood	10	725	0 9	4	210	0 0	...	...	...	...	14	935	0 9
	Burrowa	11	950	2 0	10	1,468	3 0	...	...	...	...	21	2,419	1 0
	Cooma	19	1,504	2 0	16	794	3 4	...	...	...	...	35	2,299	1 4
	Eden	9	618	1 0	2	90	0 0	...	...	...	...	11	708	1 0
	Goulburn	6	324	0 0	4	168	0 0	...	...	...	...	10	492	0 0
	Gunning	3	215	1 0	...	...	...	...	...	...	...	3	215	1 0
	Moruya	13	890	2 30	4	202	0 0	...	...	...	...	17	1,092	2 30
	Mossvale	2	180	0 0	2	240	0 0	...	...	...	...	4	420	0 0
	Queanbeyan	7	460	0 0	1	80	0 0	...	...	...	...	8	540	0 0
	Yass	12	2,317	2 0	...	...	...	...	...	...	...	12	2,317	2 0
	Young	20	2,520	3 8	12	2,377	1 24½	1	80	0 0	...	33	4,978	0 32½	
Grafton	Bellingen	12	589	0 0	...	...	...	1	73	3 0	...	13	662	3 0
	Casino	16	1,434	3 28	5	1,636	1 20	...	...	...	...	21	3,071	1 8
	Grafton	19	1,156	3 0	1	40	0 0	1	40	0 0	...	21	1,236	3 0	
	Kempsey	1	40	0 0	1	80	0 0	...	...	...	...	2	120	0 0
	Lismore	34	2,257	2 17	6	303	0 8	...	...	...	...	40	2,560	2 25
	Murwillumbah	22	826	3 34	3	85	0 4	...	...	...	...	25	911	3 38
	Port Macquarie	4	200	0 0	...	...	...	...	...	...	...	4	200	0 0
Maitland	Cassilis	8	1,381	3 0	11	1,884	3 0	...	...	...	...	19	3,266	2 0
	Dungog	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gosford	7	294	3 11	2	140	0 0	1	40	0 0	...	10	474	3 11	
	Maitland	3	178	1 30	2	82	2 0	...	...	...	...	5	260	3 30
	Muswellbrook	4	250	0 0	2	80	0 0	1	50	0 0	...	7	380	0 0	
	Newcastle	...	...	...	...	...	...	...	...	...	...	...	...	...
	Paterson	1	250	0 0	1	100	0 0	...	...	...	...	2	350	0 0
	Raymond Terrace	...	...	...	...	...	...	...	...	...	...	...	...	...
	Scone	7	865	2 0	...	...	...	...	...	...	...	7	865	2 0
	Singleton	2	80	0 0	...	...	...	1	80	0 0	...	3	160	0 0
	Stroud	5	390	0 0	1	40	0 0	1	50	0 0	...	7	480	0 0	
	Taree	11	1,146	0 0	1	60	0 0	...	...	...	...	12	1,206	0 0
	Wollombi	3	120	0 0	3	350	0 0	...	...	...	...	6	370	0 0
Orange	Bathurst	14	1,491	3 0	3	666	0 0	...	...	...	...	17	2,157	3 0
	Carcoar	7	351	1 0	5	302	1 0	...	...	...	...	12	653	2 0
	Cowra	7	641	0 0	2	146	2 20	2	32	1 24	...	11	820	0 4	
	Lithgow	8	665	1 0	4	261	3 0	...	...	...	...	12	927	0 0
	Molong	24	3,284	1 0	13	1,795	1 19	1	42	0 0	...	38	5,121	2 19	
	Mudgee	17	1,591	1 0	5	317	3 0	...	...	...	...	22	1,909	0 0
	Orange	1	49	2 0	2	80	0 0	...	...	...	...	3	129	2 0
	Rylstone	15	1,375	0 0	7	579	0 0	...	...	...	...	22	1,954	0 0
	Wellington	6	790	3 0	3	230	0 0	...	...	...	...	9	1,020	3 0
Sydney	Campbelltown	...	...	...	...	...	...	...	...	...	...	...	...	...
	Kiama	...	...	...	...	...	...	...	...	...	...	...	...	...
	Liverpool	...	...	...	...	...	...	...	...	...	...	...	...	...
	Metropolitan	...	...	...	...	...	...	...	...	...	...	...	...	...
	Milton	3	166	0 0	1	45	0 0	...	...	...	...	4	211	0 0
	Nowra	...	...	...	...	...	...	1	43	0 0	...	1	43	0 0
	Parramatta	3	132	0 0	...	...	...	...	...	...	...	3	132	0 0
	Penrith	1	40	0 0	...	...	...	1	52	0 0	...	2	92	2 0
	Picton	3	122	0 0	1	50	0 0	...	...	...	...	4	172	0 0
	Windsor	21	1,776	1 1	6	364	0 0	7	420	0 0	...	34	2,560	1 1	
	Wollongong	...	...	...	...	...	...	...	...	...	...	...	...	...
Tamworth	Murrurundi	8	1,102	2 30	7	700	2 0	...	...	...	...	15	1,803	0 30
	Tamworth	39	7,131	2 0	13	1,090	2 0	1	320	0 0	...	53	8,542	0 0	
Wagga Wagga	Albury	7	945	2 0	3	614	0 10	...	...	...	...	10	1,559	2 10
	Cootamundra	2	246	1 20	4	574	2 0	...	...	...	...	6	820	3 20
	Gundagai	6	1,600	0 0	1	238	3 0	1	120	0 0	...	8	1,958	3 0	
	Tumbarumba	8	610	0 0	2	465	3 0	...	...	...	...	10	1,075	3 0
	Tumut	4	495	0 0	...	...	...	1	90	1 0	...	5	585	1 0
Forbes	Barmedman East	3	210	0 0	...	...	...	...	...	...	...	3	210	0 0
TOTAL EASTERN		588	56,986	2 33	265	31,543	0 9½	23	1,577	1 24	876	90,107	0 26½		

SCHEDULE IX—continued.

Local Land Board District.	Land District.	Section 26. (O.C.P.)		Section 42. (A.C.P.)		Section 47. (N.R.C.P.)		Total No. of Applications.	Total Area applied for.					
		No.	Area.	No.	Area.	No.	Area.		a.	r.	p.			
CENTRAL DIVISION.														
			a.	r.	p.		a.	r.	p.		a.	r.	p.	
Bourke.....	Brewarrina East.....	3	1,560	0	0	4	7,680	0	0	...	7	9,240	0	0
Dubbo.....	Dubbo.....	10	880	0	0	33	10,474	1	0	...	43	11,354	1	0
	Coonamble.....	11	1,638	0	0	11	15,623	2	0	1	23	17,581	2	0
	Nyngan.....	3	1,100	0	0	2	483	0	0	...	5	1,583	0	0
	Warren.....	5	1,812	0	0	13	8,399	0	0	...	18	10,202	0	0
Forbes.....	Barmedman.....	2	273	0	0	8	4,037	1	0	...	10	4,360	1	0
	Condobolin.....	4	496	2	0	4	2,930	0	0	...	8	2,526	2	0
	Forbes.....	4	1,188	0	0	27	5,134	3	0	...	31	6,322	3	0
	Grenfell.....	2	167	0	0	2	97	3	0	...	4	264	3	0
	Parkes.....	7	433	3	20	18	4,097	3	30	...	25	4,531	3	10
Hay.....	Deniliquin.....	10	6,753	0	0	10	2,551	0	0	...	20	9,304	0	0
	Balranald South.....	3	639	0	0	3	1,066	0	0	...	6	1,705	0	0
	Hay.....	3	1,219	3	0	7	5,167	2	0	...	10	6,387	1	0
	Hillston.....	5	720	0	0	3	330	0	0	...	8	1,050	0	0
Moree.....	Bingara.....	4	1,240	0	0	2	440	0	0	...	6	1,680	0	0
	Moree.....	10	3,634	0	0	8	4,824	0	0	...	18	8,458	0	0
	Walgett.....	6	2,607	0	0	4	2,657	0	0	...	10	5,264	0	0
	Warialda.....	8	2,582	0	0	14	2,958	0	0	...	22	5,540	0	0
Tamworth.....	Coonabarabran.....	5	390	0	0	5	2,158	0	0	...	10	2,548	0	0
	Gunnedah.....	11	797	1	18	7	1,176	3	0	...	18	1,974	0	18
	Narrabri.....	14	1,745	3	36	17	12,210	0	0	...	31	13,955	3	36
Wagga Wagga ...	Cootamundra Central.....	1	287	0	0	...	...	...	...	...	1	287	0	0
	Corowa.....	9	1,628	3	34	10	4,540	1	30	...	19	6,169	1	24
	Narrandera.....	9	2,932	2	0	11	3,991	0	0	...	20	6,923	2	0
	Tumbarumba North.....	...	...	...	...	...	...	...	...	...	...	...	...	...
	Urana.....	10	3,907	3	10	8	2,287	0	0	...	18	6,194	3	10
	Wagga Wagga.....	22	3,462	2	0	17	2,811	3	0	...	39	6,274	1	0
TOTAL CENTRAL.....		181	44,095	0	38.	248	107,266	3	20	1	430	151,682	0	18
WESTERN DIVISION.														
.....
TOTAL WESTERN.....		...	.....	.....	.....	...	.....	.....	.....	...	.....	.....	.....	.....
SUMMARY.														
Eastern Division.....		588	56,986	2	33	265	31,543	0	9½	23	876	90,107	0	26½
Central Division.....		181	44,095	0	38	248	107,266	3	20	1	430	151,682	0	18
Western Division.....		...	.....	.....	.....	...	.....	.....	.....	...	.....	.....	.....	.....
TOTAL.....		769	101,081	3	31	513	138,809	3	29½	24	1,306	241,789	1	4½

SCHEDULE X.

RETURN showing the Number and Area of Conditional Purchases applied for during 1897, and the amount of Deposits received.

Ordinary Conditional Purchases.				Special Area Conditional Purchases.			
Section.	No.	Area.	Deposit.	Section.	No.	Area.	Deposit.
		a.	r.	£	s.	d.	
26	521	69,492	2	6,949	6	6	26
42	407	126,508	3	12,651	1	7	42
47	21	1,823	0	364	11	0	47
	949	197,824	1	19,964	19	1	357
		a.	r.	£	s.	d.	
		31,539	1	5,603	7	2	26
		12,301	0	2,148	7	7	42
		74	1	28	16	0	47
		43,964	3	7,780	10		357

SCHEDULE X—continued.

SUMMARY of Number and Area of Conditional Purchases applied for from the year 1862 to 1897 inclusive.

Years.	Applied for.			Years.	Applied for.		
	No.	Area.			No.	Area.	
1862 to 1869	27,994	a.	r. p.	1885	5,377	a.	r. p.
1870	4,471	2,161,390	2 2	1886	6,080	1,165,351	1 20
1871	4,751	329,318	1 2	1887	4,769	963,196	2 27
1872	8,231	358,682	2 8	1888	5,364	793,004	0 31
1873	13,417	749,586	3 0	1889	6,205	865,199	0 38
1874	14,510	1,391,719	0 0	1890	8,526	903,159	2 9
1875	14,517	1,586,282	0 0	1891	6,153	1,713,577	1 0
1876	12,654	1,756,678	0 0	1892	4,396	1,303,094	0 12
1877	12,009	1,984,212	0 0	1893	3,393	816,399	1 19
1878	12,602	1,699,816	0 0	1894	2,617	533,805	2 4
1879	7,540	1,588,247	3 18	1895	1,751	414,355	0 10½
1880	8,583	924,136	1 0	1896	1,279	253,431	0 12
1881	14,220	1,147,001	2 39	1897	1,306	199,449	3 37
1882	14,606	2,329,202	0 15			241,789	1 4½
1883	10,674	2,392,217	2 35				
1884	10,657	1,617,712	0 7				
		1,453,937	0 33	Total	248,702	33,635,952	2 23½

SCHEDULE XI.

RETURN showing the Number of Conditional Purchase Applications Confirmed or Disallowed during 1897.

Land Board District and Land District.	Class of Application.	Applications made during 1897.				Applications made prior to 1st January, 1897.				Total.				
		Confirmed.		Disallowed.		Confirmed.		Disallowed.		Confirmed.		Disallowed.		
ARMIDALE.														
Armidale	Ordinary	Original	No.	a.	r.	p.	No.	a.	r.	p.	No.	a.	r.	p.
		Additional	13	1,284	0	0	2	130	0	0	11	1,895	0	0	2
Do	Special area	Original	21	4,087	3	20	2	84	1	0	6	417	0	0
		Additional	3	73	3	15	..	..	..	..	2	100	0	0
Glen Innes	Ordinary	Original	1	49	2	0	..	..	..	3	120	0	0	..
		Additional	6	764	2	0	..	..	..	7	340	0	0	..
Do	Special area	Original	15	4,531	1	0	2	150	0	0	2	200	0	0
		Additional	2	240	2	0	..	..	..	1	47	2	0	..
Inverell	Ordinary	Original	12	1,579	2	0	3	150	0	0	3	257	1	0
		Additional	4	273	3	0	3	251	0	0	5	366	2	0
Do	Special area	Original	8	898	0	0	1	172	0	0	2	265	0	0
		Additional	2	95	0	0	..	..	..	1	50	0	0	..
Tenterfield	Ordinary	Original	6	326	0	0	4	235	0	0	6	580	1	0
		Additional	7	508	2	0	..	..	..	1	50	0	0	..
Do	Special area	Original	1	43	2	0	..	..	..	1	50	0	0	..
		Additional	3	111	1	30	2	114	0	30	..	..	..	..
Walcha	Ordinary	Original	5	110	2	0	..	..	..	1	12	3	30	..
		Additional	3	278	0	0	1	100	0	0	..	..	..	..
SUMMARY.														
Ordinary	Original	Original	40	4,232	0	0	10	615	0	0	27	3,072	2	0
		Additional	49	9,690	0	20	8	637	1	0	18	1,858	2	0
		Non-residential	1	43	2	0	..	..	..	..	1	43	2	0
Total			90	13,965	2	20	18	1,252	1	0	45	4,931	0	0
Special area	Original	Original	16	1,323	3	5	3	286	0	30	5	412	2	0
		Additional	8	255	0	20	..	..	..	5	182	3	30	..
		Non-residential .....	..	..	..	..	..	..	..	..	..	..	..	..
Total			24	1,578	3	25	3	286	0	30	10	595	1	30
Grand Total			114	15,544	2	5	21	1,538	1	30	55	5,526	1	30
BOURKE.														
Brewarrina East	Ordinary	Original	1	491	2	0	..	..	..	..	1	111	0	0
		Additional	3	5,760	0	0	1	1,920	0	0	..	..	..	..
Total			4	6,251	2	0	1	1,920	0	0	..	..	..
DUBBO.														
Coonamble	Ordinary	Original	3	420	0	0	4	695	0	0	3	270	0	0
		Additional	10	15,541	2	0	..	..	..	6	1,274	0	0	6
Dubbo	Ordinary	Original	2	177	1	0	1	40	0	0	3	1,403	0	0
		Additional	4	2,389	1	0	5	1,520	0	0	4	425	0	0
Do	Special area	Original	2	217	0	0	..	..	..	..	2	180	0	0
		Additional	2	217	0	0	..	..	..	..	2	217	0	0
Nyngan	Ordinary	Original	2	861	2	0	..	..	..	2	1,110	0	0	
		Additional	1	363	0	0	1	640	2	0	5	975	2	0
Warren	Ordinary	Original	4	4,162	2	0	4	2,160	0	0	8	1,516	0	0
		Additional .....	..	..	..	..	..	..	..	..	..	..	..	..
SUMMARY.														
Ordinary	Original	Original	8	1,821	3	0	6	1,375	0	0	13	3,758	2	0
		Additional	19	22,093	1	0	9	3,680	0	0	19	3,397	0	0
Total			26	23,915	0	0	15	5,055	0	0	32	7,155	2	0
Special area			2	217	0	0	..	..	..	..	..	..	..	..
Grand Total			28	24,132	0	0	15	5,055	0	0	32	7,155	2	0

* 60 acres ordinary land.

SCHEDULE XI—continued.

Land Board District and Land District	Class of Application	Applications made during 1897						Applications made prior to 1st January, 1897						Total											
		Confirmed			Disallowed			Confirmed			Disallowed			Confirmed			Disallowed								
		No	a	r	p	No	a	r	p	No	a	r	p	No	a	r	p	No	a	r	p	No	a	r	p
FORBES																									
Barmedman	Ordinary	1	73	0	0									1	73	0	0	6	3,262	2	0	1	50	0	0
Barmedman East	Ordinary	6	3,262	2	0									1	80	0	0	1	80	0	0	1	80	0	0
Condobolin	Ordinary	1	50	0	0	1	80	0	0	1	320	0	0	1	136	0	0	5	3,223	1	0	1	40	0	0
Forbes	Ordinary	1	1,562	0	0	1	40	0	0	4	1,661	1	0	1	120	0	0	2	156	0	0	1	120	0	0
Do	Special area	8	1,191	1	0	5	1,790	1	0	2	106	0	0	1	100	0	0	11	1,567	0	0	5	1,790	1	0
Grenfell	Ordinary	2	428	0	0	1	220	0	0	3	375	0	0					2	428	0	0	1	220	0	0
Do	Special area	8	1,952	1	0									8	1,952	1	0								
Parkes	Ordinary	1	85	2	0									1	85	2	0					1	170	0	0
Do	Special area	1	44	0	0									1	44	0	0					1	170	0	0
Do	Ordinary	1	67	0	0					2	160	0	0	1	119	0	0	4	400	0	0	6	2,603	2	0
Do	Special area	4	153	3	20	1	140	0	0	1	119	0	0	4	153	3	20	4	211	1	30	1	49	1	0
SUMMARY																									
Ordinary		5	478	2	0	3	220	0	0	5	636	0	0	2	236	0	0	10	1,114	2	0	5	456	0	0
Total		21	8,544	1	0	7	1,970	1	0	8	2,156	0	0	2	220	0	0	29	10,700	1	0	9	2,190	1	0
Special area		7	648	3	20	1	220	0	0					7	648	3	20	1	220	0	0				
Total		12	2,163	2	30	1	49	1	0					12	2,163	2	30	1	49	1	0				
Grand Total		19	2,812	2	10	2	269	1	0					19	2,812	2	10	2	269	1	0				
GOULBURN																									
Bega	Ordinary	1	50	0	0					3	170	0	0	1	40	0	0	4	220	0	0	1	40	0	0
Do	Special area	2	77	2	20					2	120	0	0	2	219	2	20	2	120	0	0	3	260	0	0
Bombala	Ordinary	2	365	0	0	1	40	2	0	6	347	0	0	1	40	0	0	8	712	0	0	1	40	0	0
Do	Special area	1	40	0	0	3	260	0	0	2	99	1	0	1	40	0	0	1	40	0	0	1	40	0	0
Boorowa	Ordinary	4	274	2	0	1	80	0	0	2	80	0	0	1	50	0	0	6	354	2	0	2	130	0	0
Do	Special area	2	206	0	0	2	640	0	0	1	40	0	0	2	246	0	0	2	246	0	0	2	640	0	0
Braidwood	Ordinary	2	200	2	0					1	110	2	0	2	133	0	0	2	200	2	0	2	133	0	0
Do	Special area	1	59	0	0	1	60	0	0	6	420	0	0	1	40	0	0	2	169	2	0	2	100	0	0
Cooma	Ordinary	5	430	0	0	1	120	0	0	1	40	0	0	11	850	0	0	3	160	0	0	2	100	0	0
Do	Special area	2	132	2	0					1	75	0	0	2	132	2	0	3	339	0	0	1	50	0	0
Eden	Ordinary	2	89	0	0	1	50	0	0	1	75	0	0	4	334	2	0	2	432	3	0	2	42	0	22
Do	Special area	3	209	2	0	2	42	0	22	2	180	0	0	2	42	0	22	6	560	0	0	3	180	0	0
Goulburn	Ordinary	4	370	0	0	3	180	0	0	2	180	0	0	1	18	1	0	1	18	1	0	1	18	1	0
Gunning	Ordinary	1	18	1	0					1	18	1	0	1	63	0	0	10	494	3	0	2	103	0	0
Moruya	Ordinary	3	141	0	0	1	140	0	0	3	310	0	0	3	180	0	0	3	180	0	0	3	220	0	0
Do	Special area	1	82	0	0	2	120	0	0	2	100	1	0	2	140	0	0	2	140	0	0	3	220	0	0
Moss Vale	Ordinary	2	70	3	30	1	40	0	0	4	220	0	0	1	100	0	0	7	461	0	0	3	40	0	0
Queanbeyan	Ordinary	1	100	0	0					3	231	2	0	2	90	0	0	4	219	0	0	1	40	0	0
Yass	Ordinary	1	320	0	0	5	1,130	0	0	1	86	0	0	3	284	1	0	2	410	0	0	2	90	0	0
Do	Special area	1	257	2	0	1	291	2	0	1	40	0	0	1	40	0	0	1	80	0	0	1	80	0	0
Young	Ordinary	1	117	0	0	1	122	0	0	1	320	0	0	2	297	2	0	2	437	0	0	1	122	0	0
Do	Special area	6	1,766	2	10	1	80	0	0	4	378	3	27	6	1,766	2	10	6	1,766	2	10	1	80	0	0
SUMMARY																									
Ordinary		34	2,976	2	0	18	2,211	2	0	39	3,598	3	0	10	1,042	0	0	73	6,575	1	0	23	3,253	2	0
Total		16	2,554	0	10	4	802	0	0	17	1,059	1	0	1	40	0	0	33	3,613	1	10	5	842	0	0
Special area		32	2,946	1	18	5	123	2	36½	9	680	0	27	2	133	0	0	41	3,606	2	5	2	133	0	0
Grand Total		4	181	0	22	1	122	0	0	4	384	0	0	1	18	1	0	8	565	0	22	6	141	3	36½

SCHEDULE XI—continued

Land Board District and Land District	Class of Application	Applications made during 1897				Applications made prior to 1st January, 1897				Total.			
		Confirmed		Disallowed.		Confirmed		Disallowed		Confirmed.		Disallowed.	
		No	a r p	No	a r p	No	a r p	No	a r p	No	a r p	No	a. r. p.
MOREE													
Bingara	Ordinary	3	600 0 0	1	640 0 0	5	715 0 0	1	40 0 0	8	1,315 0 0	1	640 0 0
	Additional	1	300 0 0			3	780 0 0	4	1,080 0 0	4	1,080 0 0	1	40 0 0
Moree	Ordinary	4	1,485 3 0	5	1,514 0 0	3	564 0 0	1	507 0 0	7	2,049 3 0	6	2,021 0 0
	Additional	4	1,872 0 0					2	541 0 0	4	1,872 0 0	2	541 0 0
Walgett	Ordinary	2	427 0 0	2	1,230 0 0	4	2,120 0 0			6	2,547 0 0	2	1,230 0 0
	Additional	1	1,920 0 0	1	287 0 0	3	823 3 0			4	2,743 3 0	1	287 0 0
Warialda	Ordinary	2	504 0 0	4	1,781 1 0	1	220 0 0	1	80 0 0	3	724 0 0	5	1,861 1 0
Do	Special area	7	1,973 3 0	3	275 0 0	2	198 0 0	2	690 0 0	9	2,171 3 0	5	965 0 0
	Additional	1	570 0 0							1	570 0 0		
SUMMARY													
	Ordinary	11	3,016 3 0	12	5,215 1 0	13	3,619 0 0	2	587 0 0	24	6,635 3 0	14	5,802 1 0
	Additional	13	6,065 3 0	4	562 0 0	8	1,801 3 0	5	1,271 0 0	21	7,867 2 0	9	1,833 0 0
	Total	24	9,082 2 0	16	5,777 1 0	21	5,420 3 0	7	1,858 0 0	45	14,503 1 0	23	7,635 1 0
	Special area	1	570 0 0		...					1	570 0 0		
	Grand Total	25	9,652 2 0	16	5,777 1 0	21	5,420 3 0	7	1,858 0 0	46	15,073 1 0	23	7,635 1 0
ORANGE													
Bathurst	Ordinary	6	869 0 0	2	250 0 0	3	417 0 0	1	50 0 0	9	1,286 0 0	3	300 0 0
	Additional	2	215 0 0	1	460 0 0	1	40 0 0	1	100 0 0	3	255 0 0	2	560 0 0
Carcoar	Ordinary	2	80 0 0			8	740 0 0			10	820 0 0		
	Additional	2	160 0 0			1	50 0 0			3	210 0 0		
Do	Special area	1	71 1 0							1	71 1 0		
	Additional	1	62 1 0							1	62 1 0		
Cowra	Ordinary	2	113 3 0	1	100 0 0			1	50 0 0	2	113 3 0	2	150 0 0
	Additional	1	130 0 0							1	130 0 0	1	130 0 0
Do	Special area	3	421 0 0			3	210 1 0	1	29 3 16	3	421 0 0	1	29 3 16
	Additional	1	18 2 30							4	228 3 30	2	32 1 24
	Non residential	2	32 1 24							5	200 0 0		
Lithgow	Ordinary	1	40 0 0			1	160 0 0			2	223 0 0		
	Additional	1	141 3 0			1	51 3 0			2	192 3 0		
Do	Special area	5	450 1 0							5	450 1 0		
	Additional	2	80 0 0	1	40 0 0					2	80 0 0	1	40 0 0
Molong	Ordinary	3	330 0 0	3	732 0 0	8	1,132 2 0	1	195 0 0	11	1,462 2 0	4	927 0 0
	Additional	2	775 1 0	3	279 2 0	2	389 0 0			4	1,164 1 0	3	279 2 0
Do	Special area	2	160 2 0	2	192 0 0	2	261 0 0	1	156 0 0	4	421 2 0	4	348 0 0
	Additional	2	21 0 19	3	230 0 0	3	197 3 0	1	102 0 0	5	218 3 19	3	332 0 0
	Non residential	1	42 0 0							1	42 0 0		
Mudgee	Ordinary	4	170 0 0	3	130 0 0	2	86 0 0			6	256 0 0	3	130 0 0
	Additional	2	119 0 0	1	80 0 0	4	392 1 0			6	511 1 0	1	80 0 0
Do	Special area	3	246 1 0							3	246 1 0		
	Additional	1	80 0 0			1	80 0 0			2	160 0 0		
Orange	Ordinary	1	56 0 0			1	80 0 0			2	136 0 0		
	Additional	1	49 2 0			1	80 0 0			2	136 0 0		
Do	Special area	1	49 2 0							1	49 2 0		
	Additional	9	546 0 0	3	350 0 0	3	225 0 0			12	771 0 0	3	350 0 0
Rylstone	Ordinary	4	393 0 0			3	210 3 0			7	603 3 0		
	Additional	2	180 0 0	1	40 0 0	13	2,455 0 0	4	920 0 0	15	2,635 0 0	5	960 0 0
Wellington	Ordinary	2	180 0 0	2	140 0 0	10	2,191 0 0	1	235 0 0	10	2,191 0 0	3	375 0 0
	Additional	1	125 3 0			1	320 0 0			2	445 3 0		
Do	Special area	1	125 3 0							2	445 3 0		
SUMMARY													
	Ordinary	29	2,328 3 0	13	1,602 0 0	42	5,295 2 0	7	1,215 0 0	71	7,624 1 0	20	2,817 0 0
	Additional	14	1,860 0 0	8	1,089 2 0	23	3,434 3 0	2	335 0 0	37	5,294 3 0	10	1,424 2 0
	Non residential					2	124 3 0			2	124 3 0		
	Total	43	4,188 3 0	21	2,691 2 0	67	8,855 0 0	9	1,550 0 0	110	13,043 3 0	30	4,241 2 0
	Special area	16	1,524 2 0	3	192 0 0	3	581 0 0	2	185 3 16	19	2,105 2 0	5	377 3 16
	Additional	6	182 0 9	3	320 0 0	6	408 0 0	1	102 0 0	12	590 0 9	4	422 0 0
	Non residential			3	74 1 24					3	74 1 24		
	Total	22	1,706 2 9	9	586 1 24	9	989 0 0	3	287 3 16	31	2,695 2 9	12	874 1 0
	Grand Total	65	5,895 1 9	30	3,277 3 24	76	9,844 0 0	12	1,837 3 16	141	15,739 1 9	42	5,115 3 0
SYDNEY													
Milton	Ordinary	2	105 0 0	1	61 0 0					2	105 0 0	1	61 0 0
	Additional	1	55 0 0							1	55 0 0		
Nowra	Ordinary	1	43 0 0			1	40 0 0			1	40 0 0		
	Non residential	1	40 0 0							1	40 0 0		
Penrith	Ordinary	1	40 0 0	1	52 2 0					1	40 0 0	1	52 2 0
	Non residential												
Picton	Ordinary	1	40 0 0			1	40 0 0			2	80 0 0		
	Additional	1	50 0 0							1	50 0 0		
Do	Special area	1	42 0 0							1	42 0 0		
	Additional	10	1,199 3 11			3	151 3 0			13	1,351 2 11		
Windsor	Ordinary	2	80 0 0	2	200 0 0	2	180 0 0			2	180 0 0	1	114 0 0
	Additional	2	98 1 30			3	114 3 0	1	40 0 0	5	213 0 30	3	240 0 0
Do	Special area	2	98 1 30							5	213 0 30		
SUMMARY													
	Ordinary	14	1,384 3 11	1	61 0 0	5	231 3 0			19	1,616 2 11	1	61 0 0
	Additional	2	105 0 0	1	114 0 0	2	180 0 0			4	285 0 0	1	114 0 0
	Non residential	3	123 0 0	3	252 2 0			1	40 0 0	3	123 0 0	4	292 2 0
	Total	19	1,612 3 11	5	427 2 0	7	411 3 0	1	40 0 0	26	2,024 2 11	6	467 2 0
	Special area	3	140 1 30			3	114 3 0			6	255 0 30		
	Total	3	140 1 30			3	114 3 0			6	255 0 30		
	Grand Total	22	1,753 1 1	5	427 2 0	10	526 2 0	1	40 0 0	32	2,279 3 1	6	467 2 0

SCHEDULE XI—continued.

Land Board District and Land District	Class of Application	Applications made during 1897.				Applications made prior to 1st January, 1897				Total			
		Confirmed		Disallowed		Confirmed		Disallowed		Confirmed		Disallowed.	
		No	a r p	No	a r p	No	a r p	No	a r p	No	a r p	No	a. r p.
TAMWORTH													
Coonabarrabran	Ordinary	3	300 0 0	2	90 0 0	3	390 0 0	2	80 0 0	6	690 0 0	2	90 0 0
	Additional	2	314 0 0	1	244 0 0	9	1,634 1 0			11	1,948 1 0	3	324 0 0
Gunnedah	Ordinary	2	260 0 0	1	100 0 0	2	301 3 0			4	561 3 0	1	100 0 0
Do	Additional	1	84 2 0	3	743 3 0	2	1,172 1 0			3	1,256 3 0	3	743 3 0
	Original	3	170 0 0	1	87 0 0	4	447 0 13			7	617 0 13	1	87 0 0
Murrurundi	Ordinary	2	520 0 0							2	520 0 0		
	Additional	2	110 0 0	1	150 0 0	1	120 0 0	1	60 0 0	3	230 0 0	2	210 0 0
Do	Original	2	154 1 23			1	4 1 5			3	158 2 33		
	Additional	1	40 0 0							1	40 0 0		
Narrabri	Ordinary	6	578 0 0	1	40 0 0	6	535 1 0			12	1,113 1 0	1	40 0 0
	Additional	12	9,782 0 0			4	1,054 0 0	2	280 0 0	16	10,816 0 0	2	280 0 0
Do	Original	2	9 3 36	1	99 0 0					2	9 3 36	1	99 0 0
	Additional							2	399 3 0			2	399 3 0
Tamworth	Ordinary	11	2,007 0 0	3	720 0 0	14	2,339 1 0			25	4,346 1 0	3	720 0 0
	Additional	7	461 2 0	1	80 0 0	4	314 2 0			11	776 0 0	1	80 0 0
	Non residential	1	30 0 0							1	30 0 0		
Do	Original	9	746 2 0			2	370 0 0	1	40 0 0	11	1,116 2 0	1	40 0 0
	Additional	1	64 0 0			1	140 0 0			2	204 0 0		
SUMMARY													
	Ordinary	24	3,665 0 0	7	950 0 0	25	3,566 1 0	5	420 0 0	49	7,231 1 0	7	950 0 0
	Additional	24	10,732 0 0	6	1,217 3 0	20	4,295 0 0			44	15,027 0 0	11	1,637 3 0
	Non residential	1	30 0 0							1	30 0 0		
	Total	49	14,717 0 0	13	2,167 3 0	45	7,861 1 0	5	420 0 0	94	22,578 1 0	18	2,587 3 0
	Special area	16	1,080 3 24	2	186 0 0	7	821 1 18	1	40 0 0	23	1,902 1 2	3	226 0 0
	Additional	2	104 0 0			1	140 0 0	2	399 3 0	3	244 0 0	2	399 3 0
	Total	18	1,184 3 24	2	186 0 0	8	961 1 18	3	439 3 0	26	2,146 1 2	5	625 3 0
	Grand Total	67	15,901 3 24	15	2,353 3 0	53	8,822 2 18	8	859 3 0	120	24,724 2 2	23	3,213 2 0
WAGGA WAGGA													
Albury	Ordinary					1	140 0 0			1	140 0 0		
Do	Additional					1	50 0 0	1	115 0 0	1	80 0 0	1	115 0 0
Cootamundra	Ordinary	1	40 2 0			3	276 1 0			4	316 3 0		
Do	Additional	1	391 0 0			2	202 0 0	1	51 0 0	3	593 0 0	1	51 0 0
	Original	2	246 1 20			1	20 0 0			3	266 1 20		
Cootamundra Central	Additional	3	183 2 0							3	183 2 0		
Corowa	Ordinary			1	320 0 0	1	320 0 0			1	320 0 0	1	320 0 0
Do	Additional	5	681 0 34	3	1,577 2 0	5	1,386 2 0	1	331 3 20	10	1,867 2 34	4	1,909 1 20
	Original	1	25 3 30	1	518 0 0	1	40 0 0			2	65 3 30	1	518 0 0
	Additional	1	25 3 30	3	800 0 0	2	166 0 0			2	166 0 0	3	800 0 0
Gundagai	Ordinary	1	238 3 0			1	100 0 0	2	618 3 0	2	338 3 0	2	618 3 0
	Additional			1	120 0 0					1	210 2 0	1	120 0 0
Do	Original					1	210 2 0			1	210 2 0		
	Additional							1	210 2 0			1	210 2 0
Narrandera	Ordinary	6	1,805 2 0	1	388 0 0	5	1,481 0 0	2	781 0 0	11	3,236 2 0	3	1,169 0 0
Do	Additional	3	1,274 0 0	2	394 0 0					3	1,274 0 0	2	394 0 0
	Original					1	50 0 0			1	50 0 0		
	Additional					1	40 0 0			1	40 0 0		
Tumbarumba	Ordinary	1	20 0 0			1	212 0 0			1	212 0 0		
Do	Additional									1	20 0 0		
Tumbarumba North	Original					1	212 0 0			1	212 0 0		
Tumut	Ordinary	1	50 0 0	1	40 0 0	3	465 2 0	1	40 0 0	4	515 2 0	1	40 0 0
	Additional									1	90 1 0		
Uran	Ordinary	1	320 0 0	1	442 3 0	2	836 3 0	1	640 0 0	5	1,951 1 0	3	1,920 0 0
Do	Additional	3	1,114 2 0	2	1,280 0 0	1	160 0 0			1	160 0 0	2	404 2 0
	Original					4	547 2 0	1	111 3 0	5	587 2 0	1	111 3 0
	Additional	3	664 1 0	1	40 0 0	4	1,105 1 0	2	86 0 0	7	1,709 2 0	3	126 0 0
Wagga Wagga	Ordinary	11	1,960 3 0	2	459 0 0	2	344 2 0			13	2,305 1 0	2	459 0 0
Do	Additional	6	657 1 0	1	347 0 0			1	57 3 0	6	657 1 0	2	404 3 0
SUMMARY													
	Ordinary	2	90 0 0	5	1,160 0 0	13	1,901 0 0	2	172 3 0	15	1,991 0 0	7	1,332 3 0
	Additional	6	1,614 0 0	5	2,000 1 0	10	1,847 1 0	9	1,342 2 20	16	3,461 1 0	14	3,402 3 20
	Non residential	1	90 1 0	1	120 0 0					1	90 1 0	1	120 0 0
	Total	9	1,794 1 0	11	3,340 1 0	23	3,748 1 0	11	1,515 1 20	32	5,542 2 0	22	4,855 2 20
	Special area	29	5,868 3 14	5	2,127 0 0	19	4,355 2 0	3	1,421 0 0	41	10,224 1 14	8	3,548 0 0
	Additional	13	2,140 2 30	6	1,663 2 0			2	265 1 0	15	2,340 2 30	8	1,913 3 0
	Total	42	8,009 2 4	11	3,790 2 0	21	4,555 2 0	5	1,689 1 0	63	12,565 0 4	16	5,479 3 0
	Grand Total	51	9,803 3 4	22	7,130 3 0	44	8,303 3 0	16	3,204 2 20	95	18,107 2 4	38	10,335 1 20

SUMMARY.

Ordinary land	Original	213	25,454 1 11	104	19,264 2 0	210	29,749 1 0	42	7,048 2 0	423	55,203 2 11	146	26,313 0 0
	Additional	137	76,308 1 30	64	16,596 3 0	155	21,161 0 0	45	9,594 3 20	322	97,469 1 30	109	26,191 2 20
	Non residential	7	616 3 0	7	582 2 0	3	164 3 0	2	180 0 0	10	781 2 0	9	742 2 0
	Total for the whole Colony	407	102,379 2 1	175	36,443 3 0	348	51,075 0 0	89	16,803 1 20	755	153,454 2 1	264	53,247 0 20
Special area	Original	153	15,955 2 30	21	4,847 0 35	47	7,019 1 5	9	1,852 1 16	200	22,975 0 0	30	6,699 2 11
	Additional	59	6,568 3 34	18	2,834 2 52	19	1,376 3 30	6	788 1 0	78	7,945 3 24	24	3,622 3 52
	Non residential			3	74 1 24							3	74 1 24
	Total for the whole Colony	212	22,524 2 29	42	7,756 0 24	66	8,396 0 35	15	2,640 2 16	278	30,920 3 24	57	10,396 3 02
	Grand Total for the whole Colony	619	124,904 0 30	217	44,199 3 24	414	59,471 0 35	104	19,443 3 36	1,033	184,375 1 25	321	63,643 3 202

SCHEDULE XII.

SPECIAL AREAS.

RETURN giving particulars as to proclamation and disposal of Special Areas from 1st January, 1885, to 31st December, 1897.

Land Board District.	Land District.	Class of Land.	Total acreage in Special Areas when proclaimed.	Area proclaimed but not yet available for Conditional Purchase or rendered unavailable since Proclamation by reservation or other cause.	Area available for Selection.	Area Selected.	Area unselected on 31st December, 1897.	Capital value of land selected at Original Price.	Capital value of land selected after appraisal under Sec. 36 C.L. Act, 1895.	Percentage of area selected to area available for selection.	
			a. r. p.	a. r. p.	a. r. p.	a. r. p.	a. r. p.	£ s. d.	£ s. d.	Per cent.	
Armidale.....	Armidale	Suburban	794 1 9	60 0 0	734 1 9	271 3 15	462 1 3 1/2	1,487 7 6	1,487 7 6	67	
		Population	650 0 0	35 0 0	615 0 0	241 2 20	373 1 20	765 18 9	695 17 6		
	Glen Innes	Country	18,375 0 10	6,923 1 10	11,451 3 0	8,123 0 0	3,328 3 0	14,497 7 6	13,025 10 9	81	
		Population	605 0 0	150 0 0	455 0 0	334 2 0	120 2 0	469 0 0	436 15 0		
	Inverell	Country	13,957 3 0	7,232 3 0	6,725 0 0	5,486 2 0	1,238 2 0	10,281 8 9	7,501 19 6	94	
		Population	705 0 80	457 2 0	247 2 30	247 2 30	.....	572 4 4	572 4 4	
	Tenterfield	Country	9,013 2 0	1,957 2 0	7,056 0 0	6,640 2 0	415 2 0	14,141 1 0	12,318 12 0	84	
		Population	1,476 0 16	63 0 38	1,412 3 18	1,165 3 28	246 3 30	2,547 15 1	2,206 1 8		
	Walcha	Country	2,507 1 0	1,929 1 0	578 0 0	505 0 0	73 0 0	771 0 0	346 0 0	95	
		Population	3,799 3 0	3,353 3 0	446 0 0	446 0 0	.....	1,333 0 0	836 5 0	
		Country	6,953 2 0	2,247 2 0	4,706 0 0	4,451 1 0	254 3 0	8,663 10 0	6,911 13 1		
	Totals	Suburban and Population	8,030 1 15	4,119 1 38	3,910 3 17	2,707 2 13	1,203 1 4	7,180 5 8	6,234 11 0		
		Country	50,807 0 10	20,290 1 10	30,516 3 0	25,206 1 0	5,310 2 0	48,354 7 3	40,103 15 4		
	Grand Totals .....	.....	58,837 1 25	24,409 3 8	34,427 2 17	27,913 3 13	6,513 3 4	55,534 12 11	46,338 6 4	81
Bourke	Bourke	Suburban	40 0 0	.....	40 0 0	.....	40 0 0	.....	.....	15
		Country	10,780 0 0	1,762 3 0	9,017 1 0	1,402 1 0	7,615 0 0	2,629 7 6	2,396 7 6		
	Brewarrina	Country	1,967 0 0	1,042 3 0	924 1 0	800 0 0	124 1 0	1,200 0 0	1,200 0 0	87	
		Population	2,060 2 0	1,980 2 0	80 0 0	40 0 0	40 0 0	60 0 0	60 0 0		
	Cobar	Country	5,188 1 0	2,308 1 0	2,880 0 0	.....	2,880 0 0	.....	.....	50
			
	Totals	Suburban and Population	2,100 2 0	1,980 2 0	120 0 0	40 0 0	80 0 0	60 0 0	60 0 0		
		Country	17,935 1 0	5,113 3 0	12,821 2 0	2,202 1 0	10,619 1 0	3,829 7 6	3,595 7 6		
	Grand Totals .....	.....	20,035 3 0	7,094 1 0	12,941 2 0	2,242 1 0	10,699 1 0	3,889 7 6	3,656 7 6	17
Dubbo	Coonamble	Suburban or Population	170 2 19	.....	170 2 19	170 2 19	.....	542 15 11	542 15 11	100
		Country	4,887 3 0	3,873 3 0	1,014 0 0	1,014 0 0	.....	3,069 0 0	3,069 0 0	
	Dubbo	Suburban or Population	1,534 3 0	454 3 0	1,080 0 0	595 1 10	484 2 30	1,740 18 9	1,615 18 9	84	
		Country	7,130 1 0	2,806 3 0	4,323 2 0	3,945 1 0	378 1 0	5,436 7 6	5,172 17 6		
	Nyngan	Suburban or Population	1,053 3 10	786 2 0	267 1 10	246 0 30	21 0 20	1,110 18 6	1,110 18 6	27	
		Country	695 0 0	55 0 0	640 0 0	.....	640 0 0	.....	.....
	Warren	Suburban or Population	7,922 2 0	865 0 0	7,057 2 0	3,759 2 0	3,298 0 0	12,396 8 9	11,609 1 3	81	
		Country	30,770 3 0	18,638 3 0	12,132 0 0	11,832 1 0	299 3 0	18,405 3 11	15,565 6 5		
		Totals	Suburban and Population	10,681 2 29	2,106 1 0	8,575 1 29	4,771 2 19	3,803 3 10	15,791 1 11	14,878 14 5	
			Country	43,433 3 0	25,374 1 0	18,109 2 0	16,791 2 0	1,318 0 0	26,910 11 5	23,507 3 11	
	Grand Totals .....	.....	54,165 1 29	27,480 2 0	26,684 3 29	21,563 0 19	5,121 3 10	42,701 13 4	38,685 18 4	80

SCHEDULE XII—continued.

Land Board District.	Land District.	Class of Land.	Total acreage in Special Areas when proclaimed.	Area proclaimed but not yet available for Conditional Purchase or rendered unavailable since Proclamation by reservation or other cause.	Area available for Selection.	Area Selected.	Area unselected on 31st December, 1897.	Capital value of land selected at Original Price.	Capital value of land selected after appraisal under Sec. 36 C.L. Act, 1895.	Percentage of area selected to area available for selection.
			a. r. p.	a. r. p.	a. r. p.	a. r. p.	a. r. p.	£ s. d.	£ s. d.	Per cent.
Forbes.....	Barmedman	Suburban or Population.....	339 2 0	.....	339 2 0	.....	339 2 0	605 13 9	605 13 9	...
		Country	31,559 0 0	9,929 1 0	21,629 3 0	21,446 1 0	183 2 0	38,276 10 0	27,509 17 5	99
	Barmedman East.....	Suburban or Population.....	32,433 0 0	14,045 3 0	18,387 1 0	18,127 1 0	260 0 0	35,819 0 0	20,037 10 0	98
		Country	1,020 2 36	141 1 0	879 1 36	633 0 36	256 1 0	1,722 0 0	1,524 10 0	71
	Condobolin	Suburban or Population.....	15,399 2 0	4,478 1 0	10,921 1 0	10,576 1 0	345 0 0	16,805 4 2	14,907 19 2	97
		Country	9,424 3 35	450 1 13	8,974 2 12	8,750 1 8	224 1 4	24,510 11 4	21,966 15 10	97
	Forbes	Suburban or Population.....	42,932 3 38	11,250 3 0	31,682 0 28	30,514 0 28	1,168 0 0	47,234 17 6	40,366 8 11	96
		Country	5,406 1 37	1,058 0 32	4,348 1 5	4,043 3 5	304 2 0	8,308 19 2	6,331 17 11	93
	Grenfell	Suburban or Population.....	13,814 2 0	1,689 3 0	12,124 3 0	12,043 3 0	81 0 0	20,173 12 5	14,258 6 3	99
		Country	4,205 1 10	144 2 36	4,060 2 14	3,082 0 36	978 1 18	7,331 9 2	6,477 7 0	75
	Parkes	Suburban or Population.....	37,918 0 0	3,488 3 0	34,429 1 0	31,873 2 0	2,555 3 0	48,863 11 8	40,701 6 1	92
		Country .....	.....	.....	.....	.....	.....	.....	.....	.....
	Totals	Suburban or Population.....	20,396 3 28	1,704 2 1	18,602 1 27	16,499 2 5	2,102 3 22	42,478 13 5	36,906 4 6	67
		Country	174,056 3 28	44,832 2 0	129,174 1 28	124,581 0 28	4,593 1 0	207,172 15 9	157,781 7 10	92
Grand Totals .....	.....	194,453 3 16	46,677 0 1	147,776 3 15	141,080 2 33	6,696 0 22	249,651 9 2	194,687 12 4	82	
Goulburn	Bega	Suburban or Population.....	2,029 0 37	.....	2,029 0 37	2,029 0 37	.....	10,325 18 2	9,477 2 7	100
		Country	1,155 3 0	.....	1,155 3 0	1,010 0 0	145 3 0	2,417 15 0	2,364 5 0	87
	Bombala	Suburban or Population.....	2,844 3 0	625 0 0	2,219 3 0	1,934 1 0	285 2 0	4,380 2 6	4,380 2 6	87
		Country	7,025 1 0	1,350 0 0	5,675 1 0	5,352 3 0	322 2 0	8,803 10 0	8,688 9 4	94
	Boorowa	Suburban or Population.....	14,412 2 30	568 0 30	13,844 2 0	11,062 0 30	2,782 1 10	23,707 16 8	20,579 10 11	80
		Country	15,843 3 0	2,672 3 0	13,171 0 0	10,717 0 0	2,454 0 0	21,967 2 6	20,056 8 9	81
	Braidwood	Suburban or Population.....	28 1 20	.....	28 1 20	2 2 9	25 3 11	14 1 3	14 1 3	9
		Country	1,075 0 0	331 1 0	743 3 0	337 2 0	406 1 0	532 10 0	532 10 0	45
	Cooma	Suburban or Population.....	5,735 2 28	3,570 2 38	2,164 3 30	1,375 3 11	789 0 19	3,006 2 2	3,006 2 2	63
		Country	18,001 1 20	2,656 0 20	15,345 1 0	12,987 2 0	2,357 3 0	21,876 10 5	21,043 6 4	85
	Eden	Suburban or Population.....	1,012 2 30	479 2 10	533 0 20	472 2 30	60 1 30	1,276 1 8	1,032 8 2	89
		Country	1,342 1 0	979 0 0	363 1 0	363 1 0	.....	908 2 6	908 2 6	100
	Goulburn	Suburban or Population.....	627 0 0	.....	627 0 0	148 1 0	478 3 0	360 10 0	273 17 6	24
		Country	2,019 0 0	808 2 0	1,210 2 0	1,210 2 0	.....	2,421 0 0	2,182 18 9	100
	Gunning	Suburban or Population.....	5,304 0 20	2,484 3 0	2,819 1 20	1,624 0 10	1,195 1 10	3,174 13 9	3,076 6 3	53
		Country	23,790 0 0	21,533 2 0	2,206 2 0	1,782 2 0	424 0 C	2,979 15 0	2,509 8 9	81
	Moruya	Suburban or Population.....	920 2 25	.....	920 2 25	153 1 30	767 0 35	244 0 8	244 0 8	17
		Country	2,455 2 30	215 3 0	2,239 3 30	1,896 3 0	343 0 30	3,109 18 9	2,948 3 9	85
	Moss Vale.....	Suburban or Population.....	2,254 0 26	2,254 0 26	.....	.....	.....	.....	.....	.....
		Country	1,148 3 0	778 0 0	370 3 0	242 0 0	128 3 0	434 0 0	334 0 0	65
	Queanbeyan	Suburban or Population.....	2,903 0 10	1,533 3 4	1,369 1 6	1,180 2 8	188 2 38	4,124 1 9	4,022 16 6	86
		Country	2,291 2 0	609 1 0	1,682 1 0	1,682 1 0	.....	2,738 12 6	2,634 12 6	100
	Yass	Suburban or Population.....	4,089 2 0	2,082 3 0	2,006 3 0	1,633 1 0	373 2 0	2,609 17 6	2,609 17 6	82
		Country	2,499 2 0	259 0 20	2,240 1 20	2,145 1 20	95 0 0	3,961 18 9	3,616 1 10	96
Young	Suburban or Population.....	15,996 3 35	980 1 8	15,016 2 27	13,848 1 36	1,168 0 31	37,086 13 10	32,148 19 0	92	
	Country	29,963 0 0	6,530 3 0	23,432 1 0	22,259 1 0	1,173 0 0	46,869 18 9	38,664 18 1	95	
Totals	Suburban or Population.....	58,158 3 21	14,579 0 36	43,579 2 25	35,464 3 1	8,114 3 24	90,309 19 11	80,865 5 0	81	
	Country	108,610 3 10	38,774 0 0	69,836 3 10	61,986 2 20	7,850 0 30	119,020 14 2	106,513 5 7	89	
Grand Total .....	.....	166,769 2 31	53,353 0 36	113,416 1 35	97,451 1 21	15,965 0 14	209,330 14 1	187,378 10 7	86	

SCHEDULE XII—continued.

Land Board District.	Land District.	Class of Land.	Total acreage in Special Areas when proclaimed.		Area proclaimed but not yet available for Conditional Purchase or rendered unavailable since Proclamation by reservation or other cause.		Area available for Selection.		Area Selected.		Area unselected on 31st December, 1897.		Capital value of land selected at Original Price.		Capital value of land selected after appraisalment under Sec. 36 C.L. Act, 1895.		Percentage of area selected to area available for selection.	
			a.	r. p.	a.	r. p.	a.	r. p.	a.	r. p.	a.	r. p.	£	s.	d.	£		s.	d.	Per cent.
Grafton	Bellingen	Country	32,291	0 0	20,681	0 0	11,610	0 0	9,026	0 0	2,584	0 0	15,433	11 7	12,342	0 7	76	
		Suburban or Population	593	3 0	509	3 0	84	0 0	84	0 0	.....	.....	136	10 0	136	10 0	100
	Casino	Country	6,134	2 0	4,469	0 0	1,665	2 0	1,665	2 0	.....	.....	4,125	12 6	3,525	6 3	100
		Suburban or Population	880	2 0	5	0 22	875	1 18	425	3 27	449	1 31	2,046	19 5	2,046	19 5	51	
	Grafton	Country	6,158	0 0	2,721	0 0	3,437	0 0	2,648	0 0	789	0 0	5,177	12 6	4,633	12 6	77	
		Suburban or Population	276	0 18	.....	.....	276	0 18	256	0 18	20	0 0	655	2 6	655	2 6	93
	Kempsey	Country	7,088	3 0	2,053	2 0	5,035	1 0	4,814	1 0	221	0 0	7,240	14 6	5,703	14 0	96	
		Suburban or Population	336	1 20	.....	.....	336	1 20	.....	.....	336	1 20	.....	.....	.....	.....	.....
	Lismore	Country	57,952	3 0	41,508	3 0	16,444	0 0	15,710	0 0	734	0 0	38,747	12 5	30,459	6 4	95	
		Suburban or Population	1,813	3 4	37	1 12	1,776	1 32	974	2 15	801	3 17	2,741	19 1	2,793	4 8	55	
	Murwillumbah	Country	16,401	2 20	8,923	0 0	7,478	2 20	4,241	1 20	3,237	1 0	7,724	12 6	7,037	0 6	57	
		Suburban or Population	154	2 25	.....	.....	154	2 25	84	1 39	70	0 26	337	19 6	337	19 6	55
	Port Macquarie	Country	653	1 0	.....	.....	653	1 0	100	0 0	553	1 0	150	0 0	150	0 0	15
		Totals	Country	126,679	3 20	80,356	1 0	46,323	2 20	38,205	0 20	8,118	2 0	78,599	16 0	63,851	0 2	82
		Suburban or Population	4,055	0 27	552	0 34	3,502	3 33	1,825	0 19	1,677	3 14	5,918	10 6	5,969	16 1	52	
Grand Totals			130,735	0 7	80,908	1 34	49,826	2 13	40,030	0 39	9,796	1 14	84,518	6 6	69,820	16 3	80	
Hay	Balranald South	Suburban or Population	3,040	3 0	.....	.....	3,040	3 0	2,662	1 0	378	2 0	4,572	10 0	4,002	1 3	87
		Country	47,473	3 0	24,373	1 0	23,100	2 0	19,077	3 0	4,022	3 0	31,015	17 6	24,062	12 8	82	
	Deniliquin	Suburban or Population	6,123	3 0	257	2 0	5,866	1 0	5,566	1 0	300	0 0	16,051	2 6	10,213	12 6	95	
		Country	152,532	3 0	74,183	2 0	78,349	1 0	63,753	1 0	9,596	0 0	123,023	0 0	99,277	19 3	89	
	Hay	Country	93,079	1 19	67,963	3 19	25,115	2 0	21,723	3 0	3,391	3 0	37,778	1 4	26,796	17 5	86	
		Suburban or Population	1,179	1 0	.....	.....	1,179	1 0	1,005	2 0	173	3 0	1,508	5 0	1,304	0 8	86
	Hillston	Country	7,816	3 0	5,316	1 0	2,500	2 0	1,436	1 0	1,064	1 0	2,521	10 0	2,067	18 0	85	
		Total	Suburban or Population	10,343	3 0	257	2 0	10,086	1 0	9,234	0 0	852	1 0	22,131	17 6	15,549	14 5	91
			Country	300,902	2 19	171,836	3 19	129,065	3 0	110,991	0 0	18,074	3 0	194,338	8 10	152,205	7 4	86
	Grand Totals			311,246	1 19	172,094	1 19	139,152	0 0	120,225	0 0	18,927	0 0	216,470	6 4	167,755	1 9

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SCHEDULE XII—continued.

Land Board district	Land District.	Class of Land.	Total acreage in Special Areas. when proclaimed.	Area proclaimed but not yet available for Conditional Purchase or rendered unavailable since Proclamation by reservation or other cause.	Area available for Selection.	Area Selected.	Area unselected on 31st December, 1897.	Capital value of land selected at Original Price.	Capital value of land selected after appraisalment under Sec. 36 C.L. Act, 1895.	Percentage of area selected to area available for selection.
			a. r. p.	a. r. p.	a. r. p.	a. r. p.	a. r. p.	£ s. d.	£ s. d.	Per cent.
Maitland	Cassilis	Country	4,218 1 0	1,828 0 0	2,300 1 0	2,300 1 0	.....	3,795 10 0	3,747 10 0	100
	Dungog	Country	2,818 0 0	778 2 0	2,039 2 0	1,675 3 0	363 3 0	3,012 15 0	2,823 15 0	80
	Gosford	Country	906 0 20	191 2 0	714 2 20	714 2 20	.....	1,991 0 0	1,852 8 9	100
		Population	161 3 10	10 0 0	151 3 10	67 3 0	84 0 10	135 10 0	135 10 0	44
	Maitland	Suburban	449 2 18	.....	449 2 18	194 0 19	255 1 39	388 4 9	388 4 9	43
		Country	2,177 3 0	1,448 3 0	729 0 0	360 2 0	368 2 0	657 15 0	657 15 0	49
	Muswellbrook	Population	2,068 1 20	216 1 30	1,851 3 30	1,353 1 20	498 2 10	2,543 8 9	2,543 8 9	73
		Country	1,295 3 0	1,016 0 0	279 3 0	230 0 0	49 3 0	575 0 0	575 0 0	82
	Newcastle	Population	4,185 3 0	754 0 0	3,431 3 0	2,907 3 0	524 0 0	7,274 2 6	7,095 14 2	84
		Country	5,660 3 0	5,277 1 0	383 2 0	383 2 0	.....	707 0 0	707 0 0	100
	Paterson	Country	977 1 0	125 0 0	852 1 0	852 1 0	.....	1,392 7 6	1,392 7 6	100
		Country	150 0 0	.....	150 0 0	.....	150 0 0	.....	.....	.....
	Raymond Terrace	Population	273 3 10	.....	273 3 10	107 3 0	166 0 10	241 4 4	241 4 4	39
		Country	984 2 38	.....	984 2 38	984 2 38	.....	1,678 4 6	1,565 3 3	100
	Scone	Country	1,109 0 0	140 0 0	969 0 0	969 0 0	.....	2,223 10 0	1,911 9 9	100
		Population	1,306 3 0	.....	1,306 3 0	1,306 3 0	.....	2,348 17 6	2,236 14 8	100
	Stroud	Country	7,008 3 0	5,024 1 0	1,984 2 0	1,944 2 0	40 0 0	3,541 15 0	3,541 15 0	98
		Country	852 3 0	.....	852 3 0	726 3 0	126 0 0	1,323 3 9	1,323 3 9	85
	Taree	Population	1,671 0 20	44 1 0	1,626 3 20	753 0 20	873 3 0	1,216 13 9	1,216 13 9	46
		Country	202 2 0	.....	202 2 0	81 0 0	121 2 0	162 0 0	162 0 0	40
Totals	Country	28,271 2 18	15,829 1 0	12,442 1 18	11,222 3 18	1,219 2 0	21,065 0 9	20,259 8 0	90	
	Population and Suburban	10,117 0 33	1,024 2 30	9,092 2 8	6,690 2 19	2,401 3 29	14,148 1 7	13,857 10 5	73	
Grand Total		38,388 3 16	16,853 3 30	21,534 3 26	17,913 1 37	3,621 1 29	35,213 2 4	34,116 18 5	83	
Moree	Bingara	Country	1,833 3 0	571 2 0	1,262 1 0	1,034 2 0	227 3 0	1,985 7 6	1,825 7 6	82
		Suburban or Population	278 0 0	.....	278 0 0	.....	278 0 0	.....	.....	.....
	Moree	Country	36,540 2 0	21,111 1 0	15,429 1 0	14,419 1 0	1,010 0 0	22,941 18 9	21,537 9 11	93
		Suburban or Population	272 0 0	.....	272 0 0	272 0 0	.....	1,033 0 0	884 0 0	100
	Walgett	Country	5,858 0 0	1,397 0 0	4,461 0 0	640 0 0	3,821 0 0	1,320 0 0	1,320 0 0	14
		Country	15,598 0 13	7,893 1 0	7,704 3 13	4,961 1 13	2,743 2 0	7,904 7 0	7,425 18 3	64
	Warialda	Suburban or Population	1,761 3 30	.....	1,761 3 30	434 2 20	1,327 1 10	1,188 0 4	1,182 14 1	25
		Country	62,141 1 13	30,973 0 0	28,857 1 13	21,055 0 13	7,802 1 0	34,151 13 3	32,108 15 8	...
	Totals	Suburban or Population	2,311 3 30	.....	2,311 3 30	706 2 20	1,605 1 10	2,276 0 4	2,066 14 1	...
		Grand Totals	62,142 1 3	30,973 0 0	31,169 1 3	21,761 2 33	9,407 2 10	36,427 13 7	34,175 9 9	...

SCHEDULE XII—continued.

Land Board District.	Land District.	Class of Land.	Total acreage in Special Areas when proclaimed.	Area proclaimed but not yet available for Conditional Purchase or rendered unavailable since Proclamation by reservation or other cause.	Area available for Selection.	Area Selected.	Area unselected on 31st December, 1897.	Capital value of land selected at Original Price.	Capital value of land selected after appraisalment under Sec. 36 C.L. Act 1895.	Percentage of area selected to area available for selection.	
			a. r. p.	a. r. p.	a. r. p.	a. r. p.	a. r. p.	£ s. d.	£ s. d.	Percent.	
Orange	Bathurst	Suburban or Population	837 2 10	.....	837 2 10	.....	837 2 10	.....	.....	.....
		Country	2,284 3 0	544 1 0	1,740 2 0	1,544 2 0	196 0 0	2,515 0 0	2,476 17 6	89	
	Carcoar	Suburban or Population	76 0 31	.....	76 0 31	.....	76 0 31	.....	.....	.....
		Country	1,371 2 30	.....	1,371 2 30	367 2 30	1,004 0 0	551 10 8	551 10 8	27
	Cowra	Suburban or Population	1,890 2 38	27 1 5	1,863 1 33	1,484 3 8	378 2 25	4,849 14 4	4,657 15 5	80	
		Country	27,340 0 0	1,780 0 0	25,560 0 0	24,810 2 0	749 2 0	45,879 7 10	41,792 15 5	97	
	Lithgow	Suburban or Population	.....	.....	.....	.....	.....	.....	.....	.....
		Country	4,416 2 0	2,019 3 0	2,396 3 0	1,497 0 0	899 3 0	3,535 7 6	3,495 7 6	62	
	Molong	Suburban or Population	4,744 3 37	1,315 2 11	3,429 1 26	3,195 2 18	233 3 8	6,469 11 3	6,060 9 2	93	
		Country	25,737 3 0	5,907 1 0	19,830 2 0	18,356 3 0	1,473 3 0	33,677 15 0	29,749 2 5	93	
	Mudgee	Suburban or Population	2,199 0 0	919 0 0	1,280 0 0	1,280 0 0	.....	2,678 2 6	2,427 2 6	100
		Country	3,668 3 0	556 0 0	3,112 3 0	2,940 3 0	172 0 0	4,644 15 0	4,286 18 2	94	
	Orange	Suburban or Population	.....	.....	.....	.....	.....	.....	.....	.....
		Country	468 2 0	.....	468 2 0	468 2 0	.....	1,804 0 0	1,768 0 0	100
	Rylstone	Suburban or Population	1,688 2 0	.....	1,688 2 0	1,097 1 0	591 1 0	2,195 0 0	2,105 10 0	65
Country		486 3 0	.....	486 3 0	486 3 0	.....	842 7 6	842 7 6	100	
Wellington	Suburban or Population	2,678 1 0	5 1 0	2,673 0 0	2,461 1 0	211 3 0	4,219 12 6	3,862 3 2	92		
	Country	869 3 0	101 1 0	768 2 0	768 2 0	.....	1,152 15 0	1,112 15 0	100	
	Totals	Suburban or Population	14,115 0 36	2,267 0 16	11,848 0 20	9,518 3 26	2,329 0 34	20,412 0 7	19,113 0 3	80	
		Country	66,644 1 30	10,908 2 0	55,735 3 30	51,240 3 30	4,495 0 0	94,602 18 6	86,075 14 2	92	
	Grand Totals	80,759 2 26	13,175 2 16	67,584 0 10	60,759 3 16	6,824 0 34	115,014 19 1	105,188 14 5	90
Sydney	Campbelltown	Country	9,371 0 0	2,879 3 0	6,491 1 0	2,417 3 0	4,073 2 0	4,019 10 0	3,154 14 6	37	
		Country	96 2 0	.....	96 2 0	96 2 0	.....	193 0 0	193 0 0	100
	Liverpool	Country	.....	.....	.....	.....	.....	.....	.....	.....
		Metropolitan	.....	.....	.....	.....	.....	.....	.....	.....
	Milton	Suburban or Population	1,178 2 21	.....	1,178 2 21	.....	1,178 2 21	.....	.....	.....
		Country	2,695 0 0	1,730 0 0	965 0 0	965 0 0	.....	1,615 5 0	1,006 5 0	100
	Nowra	Country	423 0 0	59 0 0	364 0 0	298 0 0	66 0 0	593 12 6	593 12 6	82	
		Suburban or Population	722 0 22	.....	722 0 22	63 2 20	658 2 2	384 17 6	384 17 6	9
	Parramatta	Country	262 0 0	122 0 0	140 0 0	100 0 0	40 0 0	225 0 0	225 0 0	71	
		Suburban or Population	1,210 1 20	1,091 2 20	118 3 0	118 3 0	.....	294 10 0	294 10 0	100
	Penrith	Country	899 0 0	259 2 0	639 2 0	609 0 0	30 2 0	3,840 5 0	3,840 5 0	95	
		Suburban or Population	274 0 13	125 2 33	148 1 20	105 1 20	43 0 0	187 15 0	187 15 0	71	
	Picton	Country	2,525 1 0	745 0 0	1,780 1 0	1,174 0 0	606 1 0	3,597 0 0	3,597 0 0	66	
		Suburban or Population	4,632 3 10	45 0 0	4,587 3 10	1,819 1 20	2,768 1 30	6,283 2 6	6,058 5 7	40	
	Windsor	Country	61 2 0	.....	61 2 0	61 2 0	.....	123 0 0	123 0 0	100
Suburban or Population		.....	.....	.....	.....	.....	.....	.....	.....
	Totals	Suburban or Population	8,018 0 6	1,262 1 13	6,755 2 33	2,107 0 20	4,648 2 13	7,150 5 0	6,925 8 1	31	
		Country	16,333 1 0	5,795 1 0	10,538 0 0	5,721 3 0	4,816 1 0	14,206 12 6	12,732 17 0	54	
	Grand Totals	24,351 1 6	7,057 2 13	17,293 2 33	7,823 3 20	9,464 3 13	21,356 17 6	19,658 5 1	45

SCHEDULE XII—continued.

Land Board District.	Land District.	Class of Land.	Total acreage in Special Areas when proclaimed.		Area proclaimed but not yet available for Conditional Purchase or rendered unavailable since Proclamation by reservation or other cause.		Area available for Selection.		Area Selected.		Area unselected on 31st December, 1897.		Capital value of land selected at Original Price.		Capital value of land selected after appraisalment under Sec. 35 C.L. Act, 1895.		Percentage of area selected to area available for selection.	
			a.	r. p.	a.	r. p.	a.	r. p.	a.	r. p.	a.	r. p.	£	s. d.	£	s. d.		Percent.
Tamworth	Coonabarrabran	Suburban or Population	264	0 0	.....	.....	264	0 0	.....	.....	264	0 0	.....	.....	.....	.....	.....	.....
		Country	2,469	0 0	1,537	0 0	932	0 0	160	0 0	772	0 0	210	0 0	240	0 0	.....	17
	Gunnedah	Suburban or Population	4,805	2 21	340	0 32	4,465	1 29	4,083	1 28	382	0 1	9,823	4 6	9,823	4 6	.....	91
		Country	15,275	2 0	2,792	0 0	12,483	2 0	8,569	2 35	3,913	3 4	14,869	14 2	14,425	11 8	.....	63
	Murrumbundi	Suburban or Population	697	3 11	.....	.....	697	3 11	136	0 35	561	2 16	382	11 0	382	11 0	.....	19
		Country	17,873	2 0	3,526	1 10	14,347	0 30	11,503	1 20	2,840	3 10	23,215	11 8	22,251	14 10	.....	80
	Narrabri	Suburban or Population	45	0 20	.....	.....	45	0 20	45	0 20	.....	.....	362	4 4	362	4 4	.....	100
		Country	44,441	2 0	21,007	2 0	20,434	0 0	15,395	0 0	5,039	0 0	25,907	2 11	25,813	10 5	.....	75
	Tamworth	Suburban or Population	11,357	1 38	378	2 0	10,978	3 38	3,263	0 27	7,715	3 11	13,421	16 8	12,235	10 5	.....	29
		Country	61,616	3 4	7,497	2 20	54,119	0 24	44,035	3 9	10,083	1 15	91,480	7 3	88,069	7 0	.....	81
Totals	Suburban or Population	17,170	0 10	718	2 32	16,451	1 18	7,527	3 30	8,923	1 28	23,969	16 6	22,803	10 3	.....	45	
	Country	141,676	1 4	39,360	1 30	102,315	3 14	79,666	3 25	22,648	3 29	155,712	16 0	150,830	3 11	.....	78	
Grand Totals .....		.....		158,846	1 14	40,079	0 22	118,767	0 32	87,194	3 15	31,572	1 17	179,702	12 6	173,633	14 2	.....
Wagga Wagga	Albury	Suburban	630	0 0	420	1 10	20	2 30	209	2 30	.....	.....	629	1 3	569	1 3	.....	100
		Country	24,254	1 3	4,789	0 10	19,465	0 33	17,391	3 33	2,073	1 0	46,976	12 6	32,924	9 9	.....	89
	Cootamundra	Population	1,032	1 17	.....	.....	1,032	1 17	755	0 7	277	1 10	2,895	6 9	2,868	14 3	.....	73
		Country	63,317	2 10	10,756	1 0	55,571	1 10	52,414	0 0	3,157	1 10	78,120	8 4	46,905	9 7	.....	94
	Cootamundra, Central	Country	2,454	1 0	.....	.....	2,454	1 0	2,129	1 0	325	0 0	4,258	10 0	3,113	6 10	.....	86
		Country	41,881	3 0	11,213	0 0	30,668	3 0	28,881	2 10	1,787	0 30	62,481	13 4	62,852	6 3	.....	94
	Gundagai	Country	17,990	2 0	888	2 0	17,102	0 0	16,914	2 0	187	2 0	34,736	3 4	25,561	7 0	.....	99
		Country	47,566	2 0	22,406	0 0	25,160	2 0	22,405	0 0	2,755	2 0	53,723	14 2	48,622	12 1	.....	89
	Tumut	Country	13,684	2 10	1,834	0 0	11,830	2 10	9,503	1 10	2,321	1 0	21,674	12 6	16,067	10 6	.....	80
		Suburban	307	1 34	20	0 0	287	1 34	20	0 0	267	1 34	50	0 0	50	0 0	.....	.....
	Do	Population	226	2 10	.....	.....	226	2 10	188	3 33	37	2 17	283	8 8	283	8 8	.....	40
		Country	7,451	3 0	4,548	1 0	2,903	2 0	2,743	2 0	160	0 0	4,836	0 0	3,837	15 0	.....	94
	Urana	Population	994	2 10	680	0 0	314	2 10	314	2 10	.....	.....	1,063	14 2	1,020	8 7	.....	100
		Country	68,108	1 23	21,447	2 30	46,660	2 38	43,639	3 0	3,020	3 38	83,502	4 2	64,933	4 10	.....	93
	Wagga Wagga	Country	84,566	2 10	11,596	3 0	72,969	3 10	70,887	0 20	2,082	2 30	150,359	11 8	101,022	5 1	.....	97
Suburban		8,190	3 31	1,120	1 10	2,070	2 21	1,488	1 0	582	1 21	4,921	10 10	4,791	12 9	.....	93	
Totals	Country	374,266	0 21	89,499	2 0	284,766	2 21	266,942	3 33	17,843	2 28	568,669	10 0	405,840	6 11	.....	.....
	Grand Totals		377,477	0 12	90,619	3 10	286,857	1 2	268,431	0 33	18,426	0 9	573,591	0 10	410,631	19 8

SUMMARY.

Totals	Suburban or population	168,690	2 31	31,782	3 10	136,907	3 21	98,582	0 12	33,325	3 9	256,763	3 9	230,022	1 3	.....
	Country	1,509,518	1 13	578,993	3 19	930,524	1 34	815,814	1 27	114,709	3 7	1,566,634	11 11	1,255,705	13 4	.....
Grand Totals for Colony		1,678,209	0 4	610,776	2 29	1,067,432	1 15	914,396	1 39	1,53,035	3 16	1,823,402	15 8	1,485,727	14 7

SCHEDULE XIII.

RETURN giving particulars relating to Applications for Appraisal of Conditional Purchases in Special Areas under Section 36, C. L. Act of 1895, received and dealt with to 31st December, 1897.

Land Board District and Land District	Total number of applications received	Area		Total number of applications dealt with by L.L.B. to 31st December, 1897	Area		Cases in which values have been finally determined												
		a	r p		a	r p	Number of Conditional Purchases	Area	Amount of purchase money represented at original price		Amount of purchase money represented after appraisal		Amount of annual instalments represented at original rate		Amount of annual instalments represented after appraisal				
									£	s d	£	s d	£	s d	£	s d			
Armidale—																			
Armidale	28	4,290	2 10	28	4,290	2 10	30	4,290	3 10	7,905	6 10½	6,363	8 10½	395	5 4	318	3 4		
Glen Innes	27	4,313	3 0	27	4,313	3 0	26	3,961	3 0	7,542	3 9	4,730	9 6	377	2 2	236	10 6		
Inverell	25	3,870	2 0	24	3,750	2 0	24	3,625	1 0	7,637	0 0	5,814	11 0	381	17 0	290	14 6		
Fenterfield	12	1,263	2 30	12	1,263	2 30	14	1,262	2 30	2,344	15 0	1,578	1 7	117	4 9	78	18 1		
Walcha	19	4,432	3 0	19	4,432	3 0	19	4,272	3 0	8,351	7 0	6,097	15 1	417	11 4	304	17 9		
Total	111	18,171	1 0	110	18,051	1 0	113	17,413	1 0	33,780	12 7½	24,584	6 0½	1,689	0 7	1,229	4 2		
Bourke—																			
Bourke	5	1,202	1 0	5	1,202	1 0	5	1,202	1 0	2,229	7 6	1,996	7 6	111	9 4	99	16 4		
Dubbo—																			
Coonamble	1	296	0 0	1	296	0 0													
Dubbo	6	1,111	0 0	6	1,111	0 0	4	963	0 0	1,976	0 0	1,587	10 0	98	16 0	79	7 6		
Warren	39	9,892	0 0	39	9,892	0 0	36	9,763	0 0	17,748	7 9	14,121	2 9	887	8 5	706	1 2		
Total	46	11,299	0 0	46	11,299	0 0	40	10,726	0 0	19,724	7 9	15,708	12 9	986	4 5	785	8 8		
Forbes—																			
Barnedman	39	14,665	1 0	39	14,665	1 0	37	13,965	1 0	26,499	18 9	15,733	6 2	1,324	19 11	786	13 4		
do East	58	17,427	0 0	58	17,427	0 0	61	17,360	1 0	33,365	10 0	17,580	0 0	1,668	5 6	879	4 0		
Condobahn	17	4,938	3 0	17	4,938	3 0	18	4,856	3 0	8,628	2 6	6,533	7 6	431	8 2	326	13 5		
Forbes	85	20,544	2 39	85	20,544	2 39	109	20,544	2 39	37,644	12 5	28,232	8 4	1,832	4 8	1,411	12 5		
Grenfell	57	11,726	1 30	57	11,726	1 30	64	11,556	0 30	21,883	10 0	13,991	7 7	1,094	3 9	699	11 5		
Parkes	85	27,485	1 30	85	27,485	1 30	89	27,022	0 30	43,623	7 6	34,606	19 9	2,181	3 5	1,730	6 11		
Total	341	96,787	2 19	341	96,787	2 19	378	95,305	1 19	171,645	6 2	116,681	9 4	8,582	5 5	5,834	1 6		
Goulburn—																			
Bega	26	1,947	3 3	26	1,947	3 3	26	1,947	3 3	9,671	16 11	8,769	11 4	483	11 0	438	9 7		
Bombala	2	613	2 0	2	613	2 0	2	613	2 0	1,227	0 0	1,111	19 4	61	7 0	55	12 0		
Boorowa	76	12,697	0 0	76	12,697	0 0	76	12,697	0 0	27,438	5 8	22,429	6 2	1,371	18 3	1,121	9 4		
Cooma	23	3,857	0 0	23	3,857	0 0	22	3,606	3 0	6,170	10 0	5,337	5 11	308	10 7	266	19 4		
Lden	15	425	1 30	15	425	1 30	15	425	1 30	1,169	19 0	926	5 7	58	10 0	46	6 3		
Goulburn	9	778	3 0	9	778	3 0	9	778	3 0	1,598	13 9	1,274	0 0	79	18 8	63	14 0		
Gunning	20	2,081	2 0	20	2,081	2 0	19	2,027	3 0	3,764	7 6	3,195	13 9	188	4 4	159	15 7		
Moruya	9	647	0 0	9	647	0 0	9	647	0 0	1,102	5 0	940	10 0	55	2 3	47	0 6		
Moss Vale	2	100	0 0	2	100	0 0	2	100	0 0	200	0 0	100	0 0	10	0 0	5	0 0		
Queanbeyan	18	1,077	2 20	18	1,077	2 20	18	1,077	2 20	3,045	10 0	2,840	4 9	162	5 6	142	6 4		
Yass	13	2,512	1 20	13	2,512	1 20	13	2,512	1 20	3,969	11 3	3,623	14 4	198	9 6	181	3 9		
Young	156	26,321	2 7	156	26,321	2 7	156	26,321	2 7	61,403	8 3	48,260	12 9	3,070	3 5	2,413	0 3		
Total	369	53,059	2 0	369	53,059	2 0	367	52,753	3 33	120,761	7 5	98,809	3 11	6,038	1 4	4,940	9 4		
Grafton—																			
Bellingen	45	4,917	0 0	45	4,917	0 0	55	4,917	0 0	8,754	17 6	5,663	6 6	437	14 10	233	3 4		
Casino	7	839	0 0	7	839	0 0	9	839	0 0	2,029	0 0	1,423	13 9	101	9 0	71	8 8		
Grafton	7	898	2 0	7	898	2 0	9	898	2 0	1,536	17 6	992	17 6	76	16 10	49	12 11		
Kempsey	24	3,231	3 0	24	3,231	3 0	30	3,516	3 0	5,275	2 6	3,738	2 0	263	15 2	186	18 1		
Lismore	96	9,319	1 20	96	9,319	1 20	105	9,303	3 20	26,953	15 8	18,716	15 2	1,347	13 9	935	16 9		
Murwillumbah	12	1,115	0 0	12	1,115	0 0	12	1,055	0 0	1,967	7 6	1,272	10 6	98	0 5	63	12 9		
Total	191	20,320	2 20	191	20,320	2 20	220	20,530	0 20	46,510	0 8	31,812	10 5	2,325	10 0	1,590	12 6		
Hay—																			
Demiquan	219	80,086	3 0	219	80,086	3 0	198	76,699	0 0	133,181	8 9	101,105	4 5	6,909	1 6	5,055	5 3		
Hay	47	21,205	3 0	47	21,205	3 0	47	21,205	3 0	36,518	1 4	25,367	17 5	1,825	18 0	1,276	16 10		
Hillston	6	1,339	2 0	6	1,339	2 0	4	814	3 0	1,426	2 6	763	6 2	71	6 2	38	8 4		
Total	272	102,632	0 0	272	102,632	0 0	249	98,719	2 0	176,120	12 7	127,410	8 0	8,806	5 8	6,370	10 5		
Matland—																			
Cassilis	6	1,817	2 0	6	1,817	2 0	2	640	0 0	1,280	0 0	1,232	0 0	64	0 0	61	12 0		
Dungog	13	1,358	3 0	13	1,358	3 0	16	1,358	3 0	2,325	7 6	2,136	7 6	116	5 4	106	16 4		
Gosford	3	170	2 20	3	170	2 20	3	170	2 20	1,108	10 0	969	13 9	55	8 6	48	9 9		
Matland	6	216	0 0	6	216	0 0	4	147	0 30	367	19 5	367	19 5	18	0 0	18	0 0		
Score	1	150	3 0	1	150	3 0	1	150	3 0	301	10 0	188	8 9	15	1 6	9	8 6		
Muswellbrook	24	2,572	2 0	24	2,572	2 0	27	2,512	1 0	5,935	15 0	5,757	6 8	296	15 9	287	17 4		
Singleton	12	2,072	2 20	12	2,072	2 20	10	2,072	2 20	3,835	6 3	3,406	3 2	191	15 4	170	6 2		
Stroud	1	223	0 0	1	223	0 0	1	183	0 0	274	10 0	274	10 0	13	14 6	13	14 6		
Taree	1	84	1 0	1	84	1 0	1	84	1 0	126	7 6	126	7 6	6	6 5	6	6 5		
Total	67	8,666	0 0	67	8,666	0 0	70	7,319	1 30	15,555	5 8	14,459	1 9	777	15 4	722	19 0		
Moree—																			
Bingara	2	640	0 0	2	640	0 0	2	640	0 0	1,120	0 0	960	0 0	56	0 0	48	0 0		
Moree	46	12,280	1 0	46	12,280	1 0	46	12,280	1 0	19,457	7 6	17,848	13 8	972	17 4½	892	8 11		
Warnaldia	12	3,260	2 0	12	3,260	2 0	11	2,777	1 20	4,832	8 0	4,948	13 0	241	12 5	217	8 8		
Total	60	16,180	3 0	60	16,180														

SCHEDULE XIII—continued.

Land Board District and Land District.	Total number of applications received	Area.	Total number of applications dealt with by L. B. to 31st December, 1897.	Area.	Cases in which values have been finally determined.					
					Number of Conditional Purchases	Area.	Amount of purchase money represented at original price.	Amount of purchase money represented after appraisalment	Amount of Annual Instalments represented at original rate.	Amount of Annual Instalments represented after appraisalment
		a r. p.		a r. p.	a r. p.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	
Tamworth—										
Gunnedah	12	1,672 3 10	12	1,672 3 10	12	1,672 3 10	2,869 2 6	2,425 0 0	143 9 2	121 5 0
Murrurundi	30	4,530 2 0	30	4,530 2 0	25	4,177 1 0	6,732 0 0	5,768 3 2	236 12 0	288 8 2
Narrabri	1	254 2 0	1	254 2 0	1	254 2 0	445 7 6	381 15 0	22 5 4	19 1 9
Tamworth	123	20,598 1 20	123	20,598 1 20	122	20,491 2 0	48,348 13 9	43,751 7 3	2,417 8 7	2,187 11 4
Total	166	27,356 0 30	166	27,356 0 30	160	26,596 0 10	58,395 3 9	52,326 5 5	2,919 15 1	2,616 6 3
Wagga Wagga—										
Albury	63	12,166 1 10	63	12,166 1 10	66	12,023 3 10	29,740 15 0	15,628 12 3	1,487 0 9	781 8 8
Cootamundra	201	43,110 1 0	182	39,205 3 0	211	42,120 1 0	81,909 13 0	50,668 1 9	4,095 9 8	2,533 8 1
Cootamundra, Central	5	1,832 1 0	5	1,832 1 0	7	2,362 1 0	4,724 10 0	3,579 6 10	236 4 6	178 19 4
Corowa	102	16,742 0 25	102	16,742 0 25	108	16,744 3 25	49,915 2 3	30,285 15 2	2,495 15 1	1,514 5 9
Gundagai	64	13,233 2 0	64	13,233 2 0	53	11,510 1 0	23,625 18 9	14,451 2 5	1,181 5 11	722 11 1
Narrandera	47	14,620 2 31	47	14,620 2 31	47	13,982 3 31	29,625 2 1	21,524 0 0	1,481 5 2	1,076 4 0
Tumbarumba	32	8,136 1 0	32	8,136 1 0	26	5,942 0 0	11,874 15 0	6,267 13 0	593 14 9	313 7 9
Tumut	13	2,151 2 0	13	2,151 2 0	13	2,021 2 0	3,115 1 3	2,116 16 3	155 15 1	105 16 10
Urana	107	32,429 2 10½	107	32,429 2 10½	110	31,472 3 14½	63,739 15 0	40,127 10 1	3,186 19 9	2,006 7 6
Wagga Wagga	221	53,037 2 12	221	53,037 2 12	238	52,703 3 2	106,335 15 5	56,998 8 10	5,316 15 9	2,849 18 5
Total	855	197,460 0 8½	836	193,555 2 8½	879	190,884 2 2½	404,006 7 9	241,647 6 7	20,230 6 5	12,082 7 5
Grand Total	2,723	597,011 2 17½	2,703	592,987 0 17½	2,794	577,501 3 18½	1,162,495 8 1½	814,820 7 0½	57,624 15 5½	40,741 0 4

SCHEDULE XIV.

RETURN giving particulars of applications made by holders of Conditional Purchases for reduction of amount of Annual Instalment.

Land District.	No. of Conditional Purchases.	No of Applications	Reduction in amount of Annual Instalments.	Land District.	No of Conditional Purchases.	No of Applications	Reduction in amount of Annual Instalments.
			£ s. d.				£ s. d.
Albury	12	2	19 16 3	Moss Vale	8	7	18 1 6
Armidale	152	67	444 16 0	Molong	92	22	239 3 4
Balranald	13	7	106 5 9	Moree	8	6	58 4 3
Barmedman	48	33	226 3 0	Moruya	4	2	3 12 6
Bathurst	33	8	41 18 4	Mudgee	57	22	59 19 0
Bega	16	5	25 3 4	Murrurundi	8	4	27 19 8
Bellingen	15	9	28 0 8	Murwillumbah	21	14	69 8 10
Bingara	11	3	48 6 6	Muswellbrook	1	1	3 15 0
Bombala	36	10	79 15 5	Narrabri	4	3	34 19 6
Boorowa	45	13	112 8 3	Narrandera	19	10	152 8 6
Bourke	4	1	13 10 0	Nowra	2	1	2 0 0
Braidwood	33	10	48 4 8	Nyngan	11	7	71 19 11
Carcoar	15	8	13 6 10	Orange	16	4	20 16 6
Casino	33	13	110 16 10	Parkes	31	20	163 5 5
Cassilis	56	14	138 14 5	Paterson	4	1	4 4 6
Condobolin	12	9	74 7 10	Pictou	4	4	13 17 0
Cooma	280	76	622 16 3	Port Macquarie	8	4	9 16 9
Coonabarrabran	26	5	63 18 3	Queanbeyan	239	58	432 7 1
Coonamble	15	7	58 2 0	Raymond Terrace	1	1	1 17 3
Cootamundra	64	36	259 2 10	Rylstone	3	2	2 0 0
Cowra	37	14	91 8 10	Scone	29	8	50 7 5
Deniliquin	52	19	370 3 5	Singleton	44	11	69 11 7
Dubbo	87	40	284 13 4	Stroud	28	10	63 17 6
Dungog	10	5	35 0 3	Tamworth	21	12	60 0 2
Eden	26	7	33 19 2	Taree	66	20	103 8 7
Forbes	12	7	41 17 2	Tenterfield	139	54	264 1 3
Glen Innes	361	103	814 7 4	Tumbarumba	18	11	57 2 4
Gosford	4	3	12 0 5	Tumut	11	1	26 15 1
Goulburn	105	25	132 19 2	Urana	34	8	206 14 2
Grafton	163	60	317 5 9	Wagga Wagga	36	13	280 18 2
Grenfell	1	1	6 10 10	Walcha	107	31	261 2 9
Gundagai	6	3	24 13 3	Warralda	40	17	238 13 7
Gunnedah	3	2	7 15 0	Warren	11	7	48 3 1
Gunning	67	19	94 6 10	Wellington	14	4	21 3 9
Hay	90	43	790 3 5	Wentworth	22	11	186 6 6
Hillston	18	13	144 18 5	Wilcannia	2	1	10 0 0
Inverell	136	56	315 1 9	Willyama	1	1	13 19 3
Kempsey	47	16	79 6 2	Yass	12	7	29 9 7
Lismore	27	7	48 18 9	Young	72	42	252 17 10
Lithgow	21	8	20 14 9				
Milton	8	3	7 17 9	Totals	3,448	1,252	9,844 4 3

SCHEDULE XV.

RETURN showing Increases and Decreases in Areas of Conditional Purchases during 1897.

Land Board District.	Land District.	The Crown Lands Act of 1834.		The Crown Lands Act of 1861.	
		Increase in Area.	Decrease in Area.	Increase in Area.	Decrease in Area.
Armidale.....	Armidale.....	a. r. p. 16 0 0	a. r. p. 26 0 0	a. r. p. 6 0 0	a. r. p. 0 2 0
	Glen Innes.....	97 2 0	.....	.....	0 2 0
	Inverell.....	165 3 0	84 1 0	.....	1 1 0
	Tenterfield.....	2 3 0	3 2 20	.....	3 1 0
	Walcha.....	.....	.....	2 1 0	13 2 26
Bourke.....	Bourke.....	.....	.....	.....	7 0 0
Dubbo.....	Coonamble.....	9 0 0	.....	12 0 0	.....
	Dubbo.....	15 2 0	7 1 0	.....	33 1 37
	Nyngan.....	21 2 0	.....	.....	.....
Forbes.....	Warren.....	31 0 0	34 0 0	1,000 0 0	.....
	Barmedman.....	.....	22 1 0	.....	.....
	Condobolin.....	85 3 0	.....	.....	.....
	Forbes.....	38 2 0	.....	11 3 0	28 2 0
	Grenfell.....	.....	.....	8 2 0	1 0 0
Goulburn.....	Parkes.....	80 0 0	.....	.....	.....
	Bega.....	10 0 0	1 1 0	7 0 0	14 3 24
	Bombala.....	13 0 0	.....	.....	5 2 20
	Boorowa.....	25 0 0	.....	4 0 0	1 1 0
	Braidwood.....	.....	3 0 0	.....	10 3 0
	Cooma.....	25 0 0	.....	10 0 0	4 2 20
	Eden.....	0 1 0	.....	0 1 32	.....
	Goulburn.....	4 3 0	5 0 0	4 0 0	10 1 0
	Gunning.....	0 1 0	.....	.....	5 2 0
	Moruya.....	1 1 0	37 2 0	1 3 0	8 0 0
	Moss Vale.....	55 3 0	.....	0 2 0	57 1 20
	Queanbeyan.....	.....	.....	.....	4 0 30
	Yass.....	3 0 0	11 1 33	2 1 0	2 2 0
	Young.....	40 0 0	6 0 0	.....	.....
	Grafton.....	Bellingen.....	3 0 0	21 0 0	1 3 0	40 1 14
Casino.....		.....	.....	.....	7 3 0
Grafton.....		3 3 0	.....	2 0 0	6 1 13
Kempsey.....		.....	1 0 0	2 0 0	31 1 20
Lismore.....		6 0 0	100 2 0	10 2 0	49 2 15
Murwillumbah.....		.....	51 1 0	7 0 0	42 1 0
Port Macquarie.....		.....	2 3 0	.....	1 0 0
Hay.....	Deniliquin.....	.....	40 0 0	35 0 0	.....
	Hay.....	.....	4 1 0	.....	.....
Maitland.....	Hillston.....	6 2 0	.....	.....	.....
	Cassilis.....	.....	154 1 0	.....	0 3 0
	Gosford.....	29 0 0	.....	.....	.....
	Maitland.....	.....	.....	.....	2 1 0
	Muswellbrook.....	2 3 0	.....	.....	.....
	Paterson.....	.....	1 1 0	.....	.....
	Raymond Terrace.....	.....	10 0 0	.....	5 3 0
	Scone.....	0 2 0	.....	17 0 0	.....
	Singleton.....	.....	.....	5 0 0	0 0 20
	Stroud.....	.....	.....	.....	2 2 0
Moree.....	Taree.....	.....	.....	6 0 0	2 3 0
	Moree.....	5 3 0	16 0 0	.....	.....
Orange.....	Warialda.....	5 3 0	56 0 0	.....	.....
	Bathurst.....	17 2 0	14 3 31	.....	4 0 0
	Carcoar.....	.....	.....	.....	1 0 0
	Cowra.....	20 0 10	11 1 0	4 1 0	1 1 0
	Lithgow.....	41 3 0	.....	.....	11 2 1½
	Molong.....	125 0 0	77 1 0	.....	1 0 0
	Mudgee.....	116 2 0	10 3 0	.....	.....
	Orange.....	16 0 0	.....	1 3 0	0 1 0
	Rylstone.....	45 3 0	.....	3 0 0	2 1 0
	Wellington.....	45 2 0	45 2 0	2 2 0	12 1 17
Sydney.....	Campbelltown.....	.....	90 0 0	.....	.....
	Liverpool.....	.....	.....	.....	5 0 0
	Milton.....	.....	.....	7 1 0	.....
Tamworth.....	Nowra.....	.....	.....	0 1 0	.....
	Coonabarabran.....	81 1 0	.....	.....	.....
	Gunnedah.....	4 2 0	6 2 0	43 1 0	31 3 0
	Murrurundi.....	.....	40 0 0	18 0 0	4 2 39
	Narrabri.....	15 1 0	523 3 0	23 0 0	8 2 0
Wagga Wagga.....	Tamworth.....	27 2 0	5 3 0	18 0 0	50 0 0
	Albury.....	0 1 0	.....	.....	.....
	Cootamundra.....	.....	.....	.....	4 1 8
	Corowa.....	.....	2 0 0	.....	.....
	Tumut.....	.....	.....	5 3 0	6 0 0
	Wagga Wagga.....	.....	248 0 0	166 0 0	6 1 0
Gundagai.....	.....	.....	.....	1 2 0	

GRAND TOTALS.

Crown Lands Act of 1834.		a.	r.	p.	Crown Lands Alienation Act of 1861.		a.	r.	p.
Increase in Area	.....	1,361	1	10	Increase in Area	.....	1,449	2	32
Decrease	.....	1,775	2	4	Decrease	.....	558	2	4½
Total Increase in Area		.....			Total Increase in Area		.....	
Total Decrease		.....			Total Decrease		.....	
							a.	r.	p.
							2,811	0	2
							2,334	0	8½

SCHEDULE XVI.

RETURN showing number of Transfers of Conditional Purchases received from 1st January to 31st December, 1897, and the number dealt with, inclusive of those on hand, during that period.

Number of Transfers received	8,854
" " intimated to Treasury	9,299
" Conditional Purchases thereby transferred	17,637*
" " " actually transferred	11,896
" Transfers upon which stamp duty was paid	3,343
Amount of stamp duty paid thereon—	
Paid through Lands Department	£4,690 15 0
Paid prior to lodgment	£1,612 7 0
	} £6,303 2 0
Number of Transfers registered in Registrar-General's office	9,293
" " in Registrar-General's office awaiting registration	Nil
" Crown Solicitor's certificates received	459
" Notices despatched, informing parties, Crown Land Agents, and Chairmen of Local Land Boards of registration of transfers	13,355

* Includes Conditional Purchases transferred more than once during the year.

SCHEDULE XVII.

RETURN showing the Number of Transfers intimated to the Treasury, the Number of C.P.'s included therein, and the actual Number of C.P.'s and area thereof transferred during the year ending the 31st December, 1897.

Land District and Land Board District.	No. of Transfers.	No. of C.P's.	Area actually transferred.			No. of C.P's. actually transferred.	Land District and Land Board District.	No. of Transfers.	No. of C.P's.	Area actually transferred.			No. of C.P's. actually transferred.
			a.	r.	p.				a.	r.	p.		
Armidale—							Grafton—						
Armidale	213	424	50,359	2	7	303	Bellingen	42	50	2,552	1	20	37
Glen Innes	149	349	23,934	1	9	159	Casino	67	101	15,235	2	0	74
Inverell	263	489	36,838	0	26	247	Grafton	120	232	15,827	2	3	157
Tenterfield	24	47	2,752	1	29	34	Kempsey	71	104	7,829	1	0	54
Walcha	99	225	25,532	0	20	180	Lismore	255	410	22,777	1	23	260
Total	748	1,534	139,466	2	11	923	Murwillumbah	62	107	10,879	1	17	90
							Port Macquarie	17	38	2,161	3	0	30
							Total	634	1,042	77,265	0	23	702
Bourke—													
Bourke	7	8	2,668	3	0	8	Hay—						
Brewarrina	23	23	10,321	0	0	20	Balranald	28	45	17,083	0	0	32
Brewarrina East	2	2	1,280	0	0	2	Balranald South .....	...	...	...	...	...
Cobar	12	18	1,630	0	0	12	Denliquin	67	92	22,764	0	0	82
Wilcannia	5	11	1,400	0	0	9	Hay	109	143	44,773	3	10	116
Willyama	10	10	400	0	0	10	Hay North .....	...	...	...	...	...
Total	59	72	17,699	3	0	61	Hillston	41	63	13,014	2	0	41
							Hillston North .....	...	...	...	...	...
Dubbo—							Wentworth	6	11	2,011	0	0	11
Coonamble	178	237	54,170	1	0	155	Total	261	354	99,646	1	10	282
Dubbo	186	348	46,239	2	18	227							
Nyngan	55	59	22,059	0	0	42	Maitland—						
Warren	96	125	36,479	3	0	95	Cassilis	115	210	27,053	0	35	148
Total	515	769	158,948	2	18	519	Dungog	16	31	1,911	0	23	28
							Gosford	20	26	824	2	30	16
Forbes—							Maitland	8	11	422	0	0	10
Barmedman	73	105	19,620	2	0	68	Muswellbrook	63	159	7,969	0	0	128
Barmedman East	22	27	5,119	1	0	21	Newcastle	3	10	560	3	20	7
Condobolin	155	201	51,703	0	15	134	Paterson	31	67	4,940	0	5	57
Forbes	262	523	54,942	3	0	320	Raymond Terrace	6	6	457	0	0	6
Grenfell	111	187	2,0346	2	35	114	Scone	138	347	21,354	2	13	228
Parkes	149	191	42,744	3	4	126	Singleton	55	146	8,258	1	35	123
Total	772	1,234	194,477	0	14	783	Stroud	20	30	2,958	1	0	24
							Taree	95	209	7,913	1	20	147
Goulburn—							Wollombi	19	34	2,055	2	0	29
Bega	164	405	18,351	0	4	246	Total	589	1,286	86,678	2	21	951
Bombala	71	182	22,886	0	38	149							
Boorowa	275	768	43,529	0	25	496	Moree—						
Braidwood	25	76	3,671	2	29	52	Bingara	39	57	7,119	1	30	46
Cooma	262	592	45,828	1	12	379	Moree	178	256	85,802	2	0	197
Eden	66	149	5,581	3	12	85	Walgett	58	74	32,174	2	0	50
Goulburn	214	540	2,4492	3	1	397	Walgett North .....	...	...	...	...	...
Gunning	115	290	17,551	3	27	217	Warialda	124	211	38,956	1	12	125
Moruya	53	154	6,227	3	0	97	Total	399	598	164,052	3	12	418
Moss Vale	84	130	6,279	0	34	85							
Queanbeyan	105	284	15,239	3	0	215							
Yass	84	179	11,505	3	7	139							
Young	307	625	59,819	0	1	417							
Total	1,825	4,374	280,864	1	30	2,974							

SCHEDULE XVII—continued.

Land District and Land Board District.	No. of Transfer.	No. of C.P's.	Area actually transferred.			No. of C.P's. actually transferred.	Land District and Land Board District.	No. of Transfer.	No. of C.P's.	Area actually transferred.			No. of C.P's. actually transferred.
			a.	r.	p.				a.	r.	p.		
Orange—							Tamworth—						
Bathurst	44	94	8,471	3	11	89	Coonabarabran	42	69	7,656	0	0	46
Carcoar	126	231	21,035	0	9	172	Gunnedah	156	264	38,021	1	9	156
Cowra	165	338	24,840	0	30	202	Murrurundi	86	194	18,681	3	19	154
Lithgow	38	64	3,680	2	0	48	Narrabri	159	248	49,028	2	0	166
Molong	204	404	40,295	3	13	289	Tamworth	414	882	82,200	1	27	612
Mudgee	182	464	19,175	1	18	309							
Orange	57	81	3,527	1	26	56	Total	857	1,657	195,588	0	15	1,134
Rylstone	93	204	13,822	0	27	164							
Wellington	96	191	12,394	1	20	135							
Total	1,005	2,071	147,242	2	34	1,464	Wagga Wagga—						
Sydney—							Albury	268	466	40,701	2	10	309
Campbelltown	1	1	40	0	0	1	Cootamundra	158	336	31,000	1	26	212
Kiama	12	23	751	2	0	14	Cootamundra Central	1	2	80	0	0	2
Liverpool	1	1	96	2	0	1	Corowa	164	226	39,198	1	16	168
Metropolitan .....	...	...	...	...	...	...	Gundagai	112	231	20,846	2	35	154
Milton	20	29	1,084	0	8	19	Narrandera	128	176	25,325	0	0	86
Nowra	66	99	3,961	0	17	67	Tumbarumba	20	34	4,253	3	12	28
Parramatta	5	6	343	0	0	6	Tumbarumba North... ..	6	6	740	0	0	3
Penrith	3	3	295	0	0	2	Tumut	70	121	8,707	1	20	83
Picton	13	17	1,933	2	0	14	Urana	232	299	57,182	0	0	183
Windsor	27	31	2,403	0	28	22	Wagga Wagga	327	538	74,105	1	10	310
Wollongong	1	1	80	0	0	1							
Total	149	211	10,987	3	13	147	Total	1,486	2,435	302,140	2	9	1,538
							Grand Total ...	9,299	17,637	1,875,058	2	10	11,896

SCHEDULE XVIII.

RETURN showing Number and Area of Conditional Purchases declared forfeited during the year 1897 for non-fulfilment of the required conditions.

Land Board District and Land District.	Ordinary Lands.						Special Areas.						Total.	
	Original.		Additional.		Non-residential.		Original.		Additional.		Non-residential.			
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
Armidale—														
Armidale	5	931 1	2	196 0 0	...	...	1	20 0 0	...	...	...	...	8	1,147 1 0
Glen Innes .....	...	...	1	68 0 0	...	...	...	...	...	...	...	...	1	68 0 0
Inverell	2	170 0	...	...	...	...	1	120 0 0	...	...	...	...	3	290 0 0
Tenterfield	2	255 0	...	...	...	...	1	14 2 20	...	...	...	...	3	269 2 20
Walcha	3	250 0	1	136 2 0	1	138 0	...	...	...	...	...	...	5	524 2 0
Total	12	1,606 1	4	400 2 0	1	138 0	3	154 2 20	...	...	...	...	20	2,299 1 20
Bourke—														
Cobar .....	...	...	...	...	...	...	1	40 0 0	...	...	...	...	1	40 0 0
Total .....	...	...	...	...	...	...	1	40 0 0	...	...	...	...	1	40 0 0
Dubbo—														
Coonamble	2	130 0	...	...	...	...	...	...	...	...	...	...	2	130 0 0
Dubbo .....	...	...	...	...	1	100 0	...	...	...	...	...	...	1	100 0 0
Nyngan .....	...	...	...	...	...	...	1	21 0 20	...	...	...	...	1	21 0 20
Warren	1	640 0	...	...	...	...	...	...	...	...	...	...	1	640 0 0
Total	3	770 0	...	...	1	100 0	1	21 0 20	...	...	...	...	5	891 0 20
Forbes—														
Barnedman	3	1,320 0	...	...	...	...	...	...	...	...	...	...	3	1,320 0 0
Condoblin	1	50 0	...	...	...	...	1	5 0 0	1	5 0 0	...	...	3	60 0 0
Parkes	2	450 0	...	...	...	...	3	64 0 0	...	...	...	...	5	514 0 0
Total	6	1,820 0	...	...	...	...	4	69 0 0	1	5 0 0	...	...	11	1,894 0 0

SCHEDULE XVIII—continued.

Land Bound District and Land District	Ordinary Lands						Special Areas						Total.	
	Original		Additional.		Non residential		Original		Additional		Non residential			
	No	Area	No	Area	No	Area	No	Area.	No	Area	No	Area	No	Area
Goulburn—		a r.		a r p.		a. r.		a. r. p.		a. r. p.		a. r.		a. r. p.
Bega	1	100 0		.....		.....		.....		.....		.....		.....
Bombala	1	40 0		.....		.....		.....		.....		.....		.....
Braidwood . . . . .	..	.....	1	40 0 0		.....		.....		.....		.....		.....
Burrowa . . . . .	.....	.....	.....	.....		.....	1	101 2 0		.....		.....		.....
Cooma	2	180 0		.....		.....		.....		.....		.....		.....
Goulburn	4	305 0	1	50 0 0		.....		.....		.....		.....		.....
Gunning	1	60 0		.....		.....		.....		.....		.....		.....
Moruya	1	44 3	1	41 1 0		.....		.....		.....		.....		.....
Moss Vale	3	274 2		.....		.....		.....		.....		.....		.....
Yass	1	320 0		.....		.....		.....		.....		.....		.....
Young . . . . .	.....	.....	1	50 2 0		.....		.....		.....		.....		.....
Total	14	1,324 1	4	181 3 0	..	.....	1	101 2 0	..	.....	..	.....	19	1,607 2 0
Grafton—														
Bellingen	4	550 0		.....	1	40 0		.....		.....		.....	5	590 0 0
Grafton	2	130 0		.....	.....	.....		.....		.....		.....	2	130 0 0
Kempsey	1	240 0	1	40 0 0		.....	1	285 0 0		.....		.....	3	565 0 0
Lismore	2	240 0		.....	.....	.....	1	7 0 15½		.....		.....	3	247 0 15½
Murwillumbah	2	407 0		.....	.....	.....		.....		.....		.....	2	407 0 0
Total	11	1,567 0	1	40 0 0	1	40 0	2	292 0 15½	..	.....	..	.....	15	1,939 0 15½
Hay—														
Deniliquin . . . . .	.....	.....	1	.....	.....	.....		.....		.....	3	800 0	3	800 0 0
Hillston . . . . .	.....	.....	1	240 0 0		.....		.....		.....		.....	1	240 0 0
Total . . . . .	.....	.....	1	240 0 0	.....	.....	.....	.....	.....	.....	3	800 0	4	1,040 0 0
Matland—														
Cassilis . . . . .	.....	.....	1	158 2 0	.....	.....		.....		.....		.....	1	158 2 0
Gosford	5	310 2		.....	.....	.....		.....		.....		.....	5	310 2 0
Newcastle . . . . .	.....	.....		.....		.....	1	40 1 0		.....		.....	1	40 1 0
Stroud	1	75 0		.....	.....	.....		.....		.....		.....	1	75 0 0
Taree . . . . .	.....	.....	1	80 0 0	2	152 2		.....		.....		.....	3	232 2 0
Wollombi	1	80 0		.....	.....	.....		.....		.....		.....	1	80 0 0
Total	7	465 2	2	238 2 0	2	152 2	1	40 1 0	.....	.....	.....	.....	12	896 3 0
Moree—														
Walgett	2	1,280 0		.....	.....	.....		.....		.....		.....	2	1,280 0 0
Warralda	1	100 0		.....	.....	.....		.....		.....		.....	1	100 0 0
Total	3	1,380 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	1,380 0 0
Orange—														
Bathurst	2	350 0		.....	.....	.....		.....		.....		.....	2	350 0 0
Carcoar	1	60 0	1	40 0 0	.....	.....		.....		.....		.....	2	100 0 0
Cowra	1	100 0		.....	.....	.....		.....		.....		.....	1	100 0 0
Lithgow	5	291 2		.....	1	73 3		.....		.....		.....	6	365 1 0
Molong	1	40 0	3	340 0 0	.....	.....	2	365 0 0	1	20 2 0	.....	.....	7	765 2 0
Mudgee . . . . .	.....	.....	2	100 0 0	.....	.....		.....		.....		.....	2	100 0 0
Wellington	1	200 0		.....	.....	.....		.....		.....		.....	1	200 0 0
Total	11	1,041 2	6	480 0 0	1	73 3	2	365 0 0	1	20 2 0	.....	.....	21	1,980 3 0
Sydney—														
Campbelltown . . . . .	.....	.....		.....	1	38 0		.....		.....		.....	1	38 0 0
Milton	1	40 0		.....	.....	.....		.....		.....		.....	1	40 0 0
Parramatta	1	40 0		.....	.....	.....		.....		.....		.....	1	40 0 0
Penrith . . . . .	.....	.....		.....	1	100 0		.....		.....		.....	1	100 0 0
Pictou	3	240 0		.....	.....	.....		.....	1	40 0 0	1	40 0	5	320 0 0
Windsor . . . . .	.....	.....	1	40 0 0	2	90 0		.....		.....		.....	3	130 0 0
Total	5	320 0	1	40 0 0	4	228 0	.....	.....	1	40 0 0	1	40 0	12	668 0 0
Tamworth—														
Gunnedah . . . . .	.....	.....	1	180 0 0	.....	.....		.....		.....		.....	1	180 0 0
Narrabri . . . . .	.....	.....	.....	.....	.....	.....	1	99 0 0		.....		.....	1	99 0 0
Tamworth	4	689 2		.....	.....	.....		.....		.....		.....	4	689 2 0
Total	4	689 2	1	180 0 0	.....	.....	1	99 0 0	.....	.....	.....	.....	6	968 2 0
Wagga Wagga—														
Albury	1	320 0		.....	.....	.....		.....		.....		.....	1	320 0 0
Cootamundra	2	460 0		.....	.....	.....	2	64 0 10		.....		.....	4	524 0 10
Corowa	1	398 1		.....	.....	.....		.....		.....		.....	1	398 1 0
Tumut	3	800 0	2	270 0 0	.....	.....		.....		.....		.....	5	1,070 0 0
Wagga Wagga . . . . .	.....	.....	1	500 0 0	.....	.....		.....		.....		.....	1	500 0 0
Total	7	1,978 1	3	770 0 0	.....	.....	2	64 0 10	.....	.....	.....	.....	12	2,812 1 10
Grand Total	83	12,962 1	23	2,570 3 0	10	732 1	18	1,246 2 25½	3	65 2 0	4	840 0	141	18,417 1 25½

SCHEDULE XIX.

RETURN showing Number and Area of Conditional Purchases declared forfeited during the year 1897 for non-payment of balance, interest, or instalment of purchase money.

Land Board District and Land District.	Crown Lands Alienation Act of 1861.										Crown Lands Act of 1884.													
	Section 13.		Section 14.		Section 19.		Section 21.		Section 22.		Total.		Section 26 (Ordinary).		Section 42 (Ordinary).		Section 47 (Ordinary).		Sections 26-24 (Special Areas).		Total.			
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
Armidale—		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.
Glen Innes .....		.....		.....	6	580 0 0		.....		.....	6	580 0 0		.....		.....		.....		.....		.....	1	300 0 0
Inverell .....		.....		.....		.....		.....		.....		.....	1	300 0 0		.....		.....		.....		.....	3	300 0 0
Walcha .....		.....		.....		.....		.....		.....		.....	1	100 0 0	2	200 0 0		.....		.....		.....		.....
Total .....		.....		.....	6	580 0 0		.....		.....	6	580 0 0	2	400 0 0	2	200 0 0		.....		.....		.....	4	600 0 0
Bourke—																								
Wilcannia	1	100 0 0	1	80 0 0		.....		.....		.....	2	180 0 0		.....		.....		.....		.....		.....		.....
Forbes—																								
Barmedman .....		.....		.....		.....		.....		.....		.....	1	640 0 0		.....		.....		.....		.....	1	640 0 0
Goulburn—																								
Bega .....		.....		.....		.....		.....		.....		.....	3	200 0 0	1	93 0 0		.....		.....		.....	4	293 0 0
Bombala	1	100 0 0		.....		.....		.....		.....	1	100 0 0		.....	1	160 0 0		.....		.....		.....	1	100 0 0
Braidwood .....		.....		.....		.....		.....		.....		.....	1	320 0 0	1	240 0 0		.....		.....		.....	2	560 0 0
Barrowa	2	80 0 0		.....		.....	2	80 0 0		.....	4	160 0 0	1	320 0 0	1	80 0 0		.....		.....		.....	2	400 0 0
Cooma	1	640 0 0		.....		.....		.....		.....	1	640 0 0	1	320 0 0		.....		.....	1	90 0 0		.....	2	410 0 0
Eden	1	40 0 0		.....		.....		.....		.....	1	40 0 0	2	140 0 0	1	85 2 0		.....		.....		.....	3	225 2 0
Goulburn .....		.....		.....		.....		.....	1	539 0 30	1	539 0 30	3	253 3 0	4	230 0 0		.....		.....		.....	7	488 3 0
Gunning .....		.....		.....		.....		.....		.....		.....	1	80 0 0	2	406 3 0		.....		.....		.....	3	486 3 0
Moruya .....		.....		.....		.....		.....		.....		.....		.....	1	456 0 0		.....		.....		.....	1	456 0 0
Queanbeyan	1	40 0 0		.....		.....		.....		.....	1	40 0 0		.....	2	140 0 0		.....		.....		.....	2	140 0 0
Yass	1	200 0 0		.....		.....		.....	1	40 0 0	2	240 0 0		.....	2	80 0 0		.....		.....		.....	2	80 0 0
Total	7	1,100 0 0		.....		.....	2	80 0 0	2	579 0 30	11	1,759 0 30	12	1,688 3 0	16	1,911 1 0		.....	1	90 0 0		.....	29	3,610 0 0
Grafton—																								
Bellingen .....		.....	1	40 0 0		.....	2	80 0 0		.....	3	120 0 0		.....		.....		.....		.....		.....		.....
Grafton .....		.....	1	85 0 0		.....		.....		.....	1	85 0 0		.....		.....		.....		.....		.....		.....
Kempsey	1	100 0 0	1	540 0 0		.....		.....		.....	2	640 0 0		.....		.....		.....		.....		.....	2	300 0 0
Lismore .....		.....		.....		.....	1	40 0 0		.....	1	40 0 0	1	100 0 0	1	200 0 0		.....		.....		.....		.....
Total	1	100 0 0	3	665 0 0		.....	3	120 0 0		.....	7	885 0 0	1	100 0 0	1	200 0 0		.....		.....		.....	2	300 0 0

SCHEDULE XIX—continued.

Land Board District and Land District.	Crown Lands Alienation Act of 1861.											Crown Lands Act of 1884.											
	Section 13.		Section 14.		Section 19.		Section 21.		Section 22.		Total.		Section 26 (Ordinary).		Section 42 (Ordinary).		Section 47 (Ordinary).		Sections 26-24 (Special Areas).		Total.		
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	
Hay—		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.		a. r. p.	
Deniliquin	5	2,562 0 0	1	40 0 0	2	448 0 0	1	190 0 0	6	2,752 0 0	3	488 0 0	2	480 0 0	1	400 0 0	1	400 0 0	2	480 0 0	3	880 0 0	
Hay	1	40 0 0	2	448 0 0	1	190 0 0	6	2,752 0 0	3	488 0 0	2	480 0 0	1	400 0 0	1	400 0 0	2	480 0 0	3	880 0 0	3	880 0 0	
Hillston	1	40 0 0	2	448 0 0	1	190 0 0	6	2,752 0 0	3	488 0 0	2	480 0 0	1	400 0 0	1	400 0 0	2	480 0 0	3	880 0 0	3	880 0 0	
Total	5	2,562 0 0	1	40 0 0	2	448 0 0	1	190 0 0	6	2,752 0 0	3	488 0 0	2	480 0 0	1	400 0 0	1	400 0 0	2	480 0 0	3	880 0 0	
Maitland—																							
Gosford													3	231 3 20							3	231 3 20	
Muswellbrook													1	72 1 0	1	40 0 0					2	112 1 0	
Raymond Terrace													2	127 2 0	1	60 0 0					3	187 2 0	
Scone													1	80 0 0							1	80 0 0	
Stroud													2	400 0 0							2	400 0 0	
Total													3	472 1 0	6	399 1 26	2	140 0 0			11	1,011 2 20	
Orange—																							
Bathurst													1	112 3 0							1	112 3 0	
Carcoar													1	70 0 0	1	196 0 0					2	266 0 0	
Lithgow	1	80 0 0			2	640 0 0			3	720 0 0			2	80 0 0	2	80 0 0					4	160 0 0	
Molong							1	100 0 0					1	100 0 0									
Rylstone	1	40 0 0							1	40 0 0													
Total	2	120 0 0			2	640 0 0	1	100 0 0					5	860 0 0	3	150 0 0	4	388 3 0			7	538 3 0	
Sydney—																							
Parramatta															1	47 0 9					1	47 0 9	
Penrith															3	141 3 0					3	141 3 0	
Picton														2	669 0 0	1	40 0 0					3	709 0 0
Total													2	669 0 0	5	228 3 9					7	£97 3 9	
Tamworth—																							
Murrurundi	1	44 0 0								1	44 0 0												
Wagga Wagga—																							
Gundagai	4	1,000 0 0					4	295 0 0			8	1,295 0 0											
Total	21	5,026 0 0	5	785 0 0	8	1,220 0 0	13	1,233 0 0	2	570 0 30	49	8,843 0 30	22	3,401 0 0	33	4,248 1 20	7	368 3 9	2	490 0 0	64	8,508 0 29	

GRAND TOTALS 113 Conditional Purchases.

Area, 17,351 acres 1 rood 19 perches.

SCHEDULE XX.

RETURN for the year 1897, showing the number and area of Conditional Purchases and Conditional Leases validated under the 138th section of the Crown Lands Act of 1884 and the 44th section of the Crown Lands Act of 1895.

Conditional Purchases.			Conditional Leases.		
Land District.	No.	Area.	Land District.	No.	Area.
Orange	2	a. r. p. 182 2 0	Dubbo	1	a. r. p. 374 0 0
Forbes	1	320 0 0			
Dubbo (now Nyngan).....	1	317 0 0			
Tamworth.....	1	148 0 0			
Young	1	45 0 0			
Totals	6	1,012 2 0	Total	1	374 0 0

SCHEDULE XXI.

SUMMARY of particulars relating to the number and area of Conditional Purchases in existence on the 31st December, 1897.

Particulars.	No.	Area.	No.	Area.
Number and area selected up to 31st December, 1896, after deducting number and area cancelled, forfeited, lapsed, disallowed, converted into homestead selections, and for which deeds have issued	147,742	a. r. p. 20,212,812 1 31½		
Number and area applied for during 1897	1,306	241,789 1 4½	149,018	20,454,601 2 36
Less net decrease due to disallowances, forfeitures, &c., as below	589	104,269 1 31½		
„ number and area for which deeds were issued during 1897	744	109,597 0 6	1,333	213,866 1 37½
Number and area in existence on the 31st December, 1897 .....	.....	.....	147,715	20,240,735 0 38½
Number and area of conditional purchases for which deeds have been issued up to 31st December, 1897 .....	.....	.....	24,131	2,882,662 0 21
Disallowed during 1897	321	63,643 3 20½		
Declared forfeited during 1897	254	35,768 3 4½		
Decrease in area (Schedule XV).....	.....	2,334 0 8½		
Converted into homestead selections	33	7,084 2 0	608	108,831 0 33½
Reversals of forfeiture for non-payment—Crown Lands Act, 1861	5	224 0 0		
Reversals of forfeiture for non-payment—Crown Lands Act, 1884	5	604 0 0		
Reversals of forfeiture for reasons other than non-payment—Crown Lands Act, 1884	9	922 3 0		
Increase in area (Schedule XV) .....	.....	2,811 0 2	19	4,561 3 2
Net decrease in number and area, due to disallowances, forfeitures, &c. ...	.....	.....	589	104,269 1 31½

SCHEDULE XXII.

RETURN giving particulars with reference to Applications received for Homestead Selections during 1897.

Land Board District and Land District.	Blocks applied for during 1897.			Applications confirmed during 1897.			Applications disallowed or withdrawn during 1897.		No. of applications outstanding at end of year.
	No.	Area.	Annual rent.	No.	Area.	Annual rent.	No.	Area.	
Armidale—		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	
Armidale	10	3,808 2 0	46 16 4	7	2,504 2 0	32 8 7	1	20 0 0	4
Glen Innes	4	1,513 0 0	12 0 3	2	191 0 0	7 3 3	...	.....	2
Tenterfield.....	13	4,333 0 0	36 7 1	6	3,126 1 0	29 6 0	5	248 1 0	2
Inverell	17	7,506 2 0	116 3 8	20	8,774 2 0	137 14 11	2	641 0 0	4
Walcha	1	96 0 0	3 12 0	1	96 0 0	3 12 0	...	.....	...
Total	45	17,257 0 0	214 19 4	36	14,692 1 0	210 4 9	8	909 1 0	12
Bourke—									
Bourke	10	208 1 0	50 0 0	9	188 1 0	45 0 0	...	.....	1
Brewarrina	2	720 0 0	6 15 0	2	720 0 0	6 15 0	...	.....	...
Cobar	1	10 2 20	0 6 0	3	167 3 0	1 18 8	...	.....	...
Total	13	938 3 20	57 1 0	14	1,076 0 0	53 13 8	...	.....	1
Dubbo—									
Coonamble.....	3	113 2 0	3 11 0	1	48 2 0	1 10 4	...	.....	2
Dubbo	34	17,193 3 0	324 12 2	65	38,713 3 0	605 13 0	20	17,184 2 0	7
Nyngan	13	4,208 0 0	68 16 1	8	2,685 3 0	45 18 4	2	760 3 0	5
Total	50	21,515 1 0	396 19 3	74	41,448 0 0	653 1 8	22	17,945 1 0	14

SCHEDULE XXII—continued.

Land Board District and Land District.	Blocks applied for during 1897.			Applications confirmed during 1897.			Applications disallowed or withdrawn during 1897.		No. of applications outstanding at end of year.
	No.	Area.	Annual rent.	No.	Area.	Annual rent.	No.	Area.	
		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	
Forbes—									
Barmedman	3	1,700 0 0	21 5 0	4	2,012 2 0	25 3 2	...	.....	...
Forbes	45	32,517 3 0	467 1 5	42	31,020 3 0	441 2 7	14	8,939 1 0	4
Grenfell	1	32 0 38	0 12 1	3	315 1 0	5 7 9	...	.....	2
Parkes	44	38,841 1 0	460 12 3	22	16,621 2 0	176 0 1	7	6,642 2 0	24
Total	93	73,091 0 38	949 10 9	71	49,970 0 0	647 13 7	21	15,581 3 0	30
Goulburn—									
Bombala	32	1,327 0 10	42 13 4	17	1,224 2 30	39 15 9	2	76 0 30	1
Boorowa	5	2,272 3 0	29 12 8	5	1,720 1 0	24 18 5	2	676 0 0	2
Braidwood	3	962 2 12	12 0 8	...	.....	.....	...	.....	1
Cooma	19	2,947 1 38	50 6 6	8	479 2 38	18 4 6	1	66 3 0	2
Eden	6	273 1 20	11 2 2	4	232 1 20	6 1 8	...	.....	3
Goulburn	8	367 1 20	6 17 10	1	183 2 30	3 18 11	1	183 2 30	...
Gunning	6	293 1 0	6 13 10	2	293 1 0	6 13 10	...	.....	...
Moruya	6	1,504 0 0	11 14 11	3	755 2 0	5 10 10	...	.....	3
Queanbeyan	22	1,804 3 10	33 10 10	7	828 3 10	19 1 7	2	1,042 0 0	2
Yass	23	1,008 0 0	22 14 10	2	171 0 0	5 6 10	...	.....	6
Young	33	3,183 1 0	59 3 3	11	1,428 2 0	23 13 10	5	1,216 0 0	4
Total	163	15,943 3 30	286 10 10	60	7,317 3 8	152 16 2	13	3,260 2 20	24
Grafton—									
Bellingen	5	894 1 0	11 3 8	4	606 0 0	7 11 6	...	.....	3
Grafton	7	1,217 1 0	10 17 9	7	1,217 1 0	10 17 9	...	.....	...
Kempsey	1	55 0 0	1 7 6	...	.....	.....	...	.....	1
Lismore	8	1,936 2 0	24 11 4	7	1,753 0 0	22 1 11	1	180 0 0	2
Murwillumbah	9	1,247 2 0	23 16 3	6	945 2 0	18 3 1	...	.....	7
Total	30	5,410 2 0	71 16 6	24	4,521 3 0	58 14 3	1	180 0 0	13
Hay—									
Balranald	3	3,511 0 0	39 8 0	3	3,511 0 0	39 8 0	...	.....	.....
Balranald South	14	16,089 2 0	320 19 11	9	10,423 0 0	196 12 2	6	6,680 3 0	.....
Deniliquin	71	24,822 0 0	771 1 1	33	12,335 3 0	375 0 1	31	10,822 3 0	7
Hay	31	32,268 2 0	495 2 6	17	19,341 2 0	279 14 1	10	10,639 2 0	4
Hillston	23	14,578 0 0	118 16 1	14	8,361 0 0	67 15 7	4	2,385 0 0	5
Wentworth	2	2,558 0 0	11 19 11	2	2,558 0 0	11 19 11	...	.....	.....
Total	144	93,827 0 0	1,757 7 6	78	56,530 1 0	970 9 10	51	30,528 0 0	16
Maitland—									
Cassilis	18	1,835 2 0	38 7 11	17	2,243 1 0	40 7 8	4	595 1 0	3
Dungog	2	337 0 0	5 4 3	1	80 0 0	2 0 0	...	.....	1
Gosford	8	1,090 1 0	9 16 11	8	1,090 1 0	9 16 11	1	63 3 0	.....
Maitland	5	402 1 0	5 17 6	10	760 2 20	11 11 3	...	.....	.....
Muswellbrook	2	398 0 0	5 16 2	1	199 0 0	2 18 1	1	199 0 0	.....
Newcastle	5	261 3 0	2 14 6	2	176 1 0	1 9 3	2	86 0 0	2
Paterson	6	719 3 0	7 19 11	7	815 3 0	9 7 11	...	.....	.....
Scone	13	14,413 2 0	180 3 5	9	9,293 2 0	116 3 5	4	5,120 0 0	.....
Singleton	5	394 1 0	8 16 2	5	314 2 0	6 17 5	2	179 3 0	.....
Stroud	9	7,626 1 0	117 2 11	6	4,706 2 0	74 5 8	3	2,919 3 0	.....
Total	73	27,478 2 0	381 19 8	66	19,679 2 20	274 17 7	17	9,163 2 0	6
Morree—									
Walgett	4	4,269 1 20	66 14 4	5	5,549 1 20	82 14 4	...	.....	.....
Orange—									
Cowra	11	121 2 3	4 3 6	11	121 2 3	4 3 6	...	.....	.....
Molong	10	1,489 1 30	34 19 10	9	1,699 0 39	31 7 10	1	21 1 37	3
Mudgee	7	4,230 3 26	56 14 6	3	1,346 0 26	18 13 4	2	2,560 0 0	2
Total	28	5,841 3 19	95 17 10	23	3,166 3 28	54 4 8	3	2,581 1 37	5
Sydney—									
Campbelltown	11	221 3 0	6 11 10	11	249 1 10	6 14 3	2	32 0 30	3
Liverpool	7	169 0 0	2 5 9	9	221 3 0	3 9 3	...	.....	1
Nowra	2	27 2 0	0 10 4	2	27 2 0	0 10 4	...	.....	...
Penrith	1	29 1 30	0 8 10	1	29 1 30	0 8 10	...	.....	...
Pictou .....	...	.....	.....	2	78 0 0	1 13 2	1	95 3 0	...
Windsor	20	925 1 30	15 0 1	18	815 0 30	13 11 0	3	134 3 30	2
Total	41	1,373 0 20	24 16 10	43	1,421 0 30	26 6 10	6	262 3 20	6

SCHEDULE XXII—continued.

Land Board District and Land District.	Blocks applied for during 1897.			Applications confirmed during 1897.			Applications disallowed or withdrawn during 1897.		No. of applications outstanding at end of year.
	No.	Area.	Annual rent.	No.	Area.	Annual rent.	No.	Area.	
		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	
Tamworth—									
Gunnedah	34	15,269 0 0	344 12 5	23	8,238 1 0	173 18 8	9	4,073 0 0	8
Murrurundi	2	80 0 0	12 0 0	1	40 0 0	6 0 0	1	40 0 0	...
Narrabri.....	2	255 0 0	6 7 6	2	255 0 0	6 7 6	...	.....	...
Tamworth	12	3,887 0 30	75 1 4	13	5,185 2 30	121 9 11	3	646 0 0	3
Total	50	19,491 0 30	438 1 3	39	13,718 3 30	307 16 1	13	4,759 0 0	11
Wagga Wagga—									
Albury	22	1,183 0 25	26 2 10	10	336 3 35	8 7 11	5	82 3 37	16
Cootamundra.....	8	1,960 2 23	37 2 2	21	4,102 1 30	85 9 2	6	1,185 0 30	2
Cootamundra, Central	1	267 2 0	5 17 0	1	267 2 0	5 17 0	...	.....	...
Corowa	24	13,481 3 0	313 15 2	29	14,374 2 20	328 5 3	73	38,836 3 0	6
Narrandera	16	15,343 2 0	260 4 9	34	27,068 3 0	469 17 0	12	7,715 2 0	6
Urana.....	36	22,399 0 30	424 14 6	34	20,537 3 0	389 1 3	28	18,669 0 30	8
Wagga Wagga	55	26,217 0 0	609 19 9	35	20,483 2 0	471 19 3	20	11,587 2 0	33
Total	162	80,852 2 38	1,677 16 2	164	87,171 2 5	1,758 16 10	144	78,077 0 17	71

SUMMARY.

Armidale	45	17,257 0 0	214 19 4	36	14,692 1 0	210 4 9	8	909 1 0	12
Bourke	13	938 3 20	57 1 0	14	1,076 0 0	53 13 8	...	.....	1
Dubbo	50	21,515 1 0	396 19 3	74	41,448 0 0	653 1 8	22	17,945 1 0	12
Forbes.....	93	73,091 0 38	949 10 9	71	49,970 0 0	647 13 7	21	15,581 3 0	30
Goulburn	163	15,943 3 30	286 10 10	60	7,317 3 8	152 16 2	13	3,260 2 20	24
Grafton	30	5,410 2 0	71 16 6	24	4,521 3 0	58 14 3	1	180 0 0	13
Hay	144	93,827 0 0	1,757 7 6	78	56,530 1 0	970 9 10	51	30,528 0 0	16
Maitland.....	73	27,478 2 0	381 19 8	66	19,679 2 20	274 17 7	17	9,163 2 0	6
Moree.....	4	4,269 1 20	66 14 4	5	5,549 1 20	82 14 4	...	.....	.....
Orange	28	5,841 3 19	95 17 10	23	3,166 3 28	54 4 8	3	2,581 1 37	5
Sydney	41	1,373 0 20	24 16 10	43	1,421 0 30	26 6 10	6	262 3 20	6
Tamworth	50	19,491 0 30	438 1 3	39	13,718 3 30	307 16 1	13	4,759 0 0	11
Wagga	162	80,852 2 38	1,677 16 2	164	87,171 2 5	1,758 16 10	144	78,077 0 17	71
Total	896	367,290 2 15	6,419 11 3	697	306,263 2 21	5,251 10 3	299	163,248 3 14	207

SCHEDULE XXIII.

RETURN showing Number and Area of Homestead Selections confirmed to 31st December, 1897.

Land Board District and Land District.	No.	Area.	Annual rent.	Land Board District and Land District.	No.	Area.	Annual rent.
		a. r. p.	£ s. d.			a. r. p.	£ s. d.
Armidale—				Goulburn—			
Armidale	39	6,198 1 0	87 12 6	Bombala	18	1,274 2 30	41 7 0
Glen Innes	10	809 3 14	26 10 5	Boorowa	17	3,874 3 0	70 19 5
Inverell	26	9,408 1 0	151 14 9	Cooma	12	913 1 38	29 16 5
Tenterfield	35	8,128 0 10	87 15 4	Eden	13	941 1 20	19 13 3
Walcha	3	508 0 0	13 14 8	Goulburn.....	11	1,923 3 0	40 17 1
Total	113	25,052 1 24	367 7 8	Gunning	6	893 2 0	19 19 8
Bourke—				Moruya	7	1,335 0 0	13 5 9
Bourke.....	20	412 1 20	100 0 0	Queanbeyan	10	991 3 10	24 3 6
Brewarrina	16	14,162 0 20	128 14 5	Yass.....	2	171 0 0	5 6 10
Cobar	10	556 1 24	7 11 8	Young	42	8,821 0 23	205 14 7
Total	46	15,130 3 24	236 6 1	Total	138	21,140 2 1	471 3 6
Dubbo—				Grafton—			
Coonamble	9	348 2 10	10 18 0	Bellingen	6	876 0 0	10 19 0
Dubbo	105	42,960 3 37	702 14 1	Grafton	10	2,156 2 0	21 8 8
Nyngan	30	13,262 2 0	169 15 2	Kempsey	8	1,093 3 0	21 18 0
Total	144	56,572 0 7	883 7 3	Lismore	21	4,321 1 0	73 5 6
Forbes—				Murwillumbah	6	945 2 0	18 3 1
Barmedman	11	5,184 2 0	67 13 11	Total	51	9,393 0 0	145 14 3
Forbes	52	40,073 0 0	577 13 9	Hay—			
Grenfell	14	7,510 1 37	102 15 11	Balranald	3	3,511 0 0	39 8 0
Parkes	31	23,717 3 0	264 16 4	Balranald South.....	10	11,493 3 0	206 13 0
Total	108	76,435 2 37	1,012 19 11	Deniliquin	102	43,278 3 0	1,092 16 5
				Hay	35	32,511 1 0	488 5 7
				Hillston	25	15,090 0 0	142 17 4
				Wentworth.....	2	2,558 0 0	11 19 11
				Total	177	108,442 3 0	1,982 0 3

SCHEDULE XXIII—continued.

Land Board District and Land District.	No.	Area.	Annual rent.	Land Board District and Land District.	No.	Area.	Annual rent.
		a. r. p.	£ s. d.			a. r. p.	£ s. d.
Maitland—				Sydney—			
Cassilis.....	57	4,316 0 20	93 2 0	Campbelltown.....	36	769 1 12	18 12 3
Dungog.....	7	781 3 10	16 16 4	Liverpool.....	11	467 3 0	6 10 9
Gosford.....	33	3,716 1 0	41 12 7	Nowra.....	5	128 1 20	2 17 5
Maitland.....	18	1,343 0 20	20 0 7	Penrith.....	1	29 1 30	0 8 10
Muswellbrook.....	1	199 0 0	2 18 1	Picton.....	2	78 0 0	1 13 2
Newcastle.....	8	469 1 0	6 3 1	Windsor.....	55	2,608 3 20	45 0 2
Paterson.....	11	1,674 3 0	18 6 1	Total.....	110	4,081 3 2	75 2 7
Scone.....	9	9,293 2 0	116 3 5	Tamworth—			
Singleton.....	28	2,395 1 0	47 10 2	Gunnedah.....	74	25,724 1 0	481 13 10
Stroud.....	6	4,706 2 0	74 5 8	Murrurundi.....	16	682 2 0	115 7 5
Total.....	178	28,895 2 10	436 18 0	Narrabri.....	3	1,232 1 0	24 14 0
				Tamworth.....	19	7,498 1 30	183 6 3
Moree—				Total.....	112	35,137 1 30	805 1 6
Walgett.....	11	10,390 1 20	143 4 7	Wagga Wagga—			
Warialda.....	5	6,400 0 0	80 0 0	Albury.....	27	821 0 37	26 11 0
Total.....	16	16,790 1 20	223 4 7	Cootamundra.....	80	20,878 0 0	459 17 7
				Do Central.....	7	4,276 0 0	69 11 5
Orange—				Corowa.....	66	26,529 0 31	640 7 4
Cowra.....	15	166 0 15	5 14 7	Narrandera.....	87	56,854 2 0	944 4 10
Lithgow.....	3	579 1 0	10 17 3	Urana.....	100	50,587 1 20	970 12 0
Molong.....	18	4,220 1 39	78 13 3	Wagga Wagga.....	157	63,506 1 0	1,536 8 8
Mudgee.....	44	5,565 1 26	115 2 1	Total.....	524	223,452 2 8	4,647 12 10
Total.....	80	10,531 1 0	210 7 2	Grand Total.....	1,797	631,106 1 3	11,497 5 7

SCHEDULE XXIV.

RETURN showing Number and Area of Homestead Selections declared forfeited during the year 1897 for non-fulfilment of the required conditions.

Land Board District.	Land District.	Section.	No.	Area.	Land Board District.	Land District.	Section.	No.	Area.
				a. r. p.					a. r. p.
Armidale.....	Armidale.....	14	2	24 1 20	Orange.....	Lithgow.....	14	1	195 1 0
	Tenterfield.....	14	2	98 2 0		Mudgee.....	14	1	152 1 0
	Total.....	.....	4	122 3 20		Total.....	.....	2	347 2 0
Bourke.....	Bourke.....	14	2	44 0 20	Sydney.....	Campbelltown.....	14	8	160 2 0
Dubbo.....	Dubbo.....	14	1	185 2 0		Windsor.....	14	8	409 0 20
Goulburn.....	Goulburn.....	14	2	499 2 30		Total.....	.....	16	569 2 20
	Gunning.....	14	1	159 1 0					
	Young.....	14	1	32 3 0	Tamworth.....	Murrurundi.....	14	1	40 0 0
	Total.....	.....	4	631 2 30		Tamworth.....	14	1	463 2 0
Grafton.....	Kempsey.....	14	2	176 0 0		Total.....	.....	2	503 2 0
Hay.....	Balranald South.....	14	1	1,267 2 0	Wagga Wagga.....	Albury*.....	14	5	24 1 5
	Deniliquin.....	14	5	2,420 3 0		Cootamundra.....	14	3	779 3 0
	Total.....	.....	6	3,638 1 0		Wagga Wagga.....	14	6	2,734 1 0
Maitland.....	Cassilis.....	14	4	293 2 0		Total.....	.....	14	3,538 1 5
	Gosford.....	14	4	451 1 0		Grand Total*.....	.....	63	10,692 0 15
	Maitland.....	14	1	60 0 0					
	Singleton.....	14	1	80 0 0					
	Total.....	.....	10	884 3 0					

* One homestead selection, 5 acres 2 roods 34 perches, forfeiture provisionally reversed.

SCHEDULE XXV.

RETURN giving particulars as to notification and disposal of Homestead Selection Areas from 1st June, 1895, to 31st December, 1897.

Land Board District and Land District.	Total acreage in Homestead Selection Areas when notified.			Area notified but not yet available for selection, or rendered unavailable since notification, by reservation or other cause.			Area available for selection.			Area selected.			Area unselected on 31st December, 1897.		Capital Value represented by Land Selected.		Percentage of area Selected to area available for selection.
	No. of Blocks.	Area.		No. of Blocks.	Area.		Area available for selection.			No. of Blocks.	Area.		Area unselected on 31st December, 1897.		£	s. d.	
Armidale—		a	r. p.		a.	r. p.	a	r. p.	a.	r. p.	a.	r. p.	a.	r. p.	£	s. d.	
Armidale	101	*14,621	3 10	33	2,080	0 0	12,541	3 10	43	8,651	3 20	3,889	3 30	9,321	17 10	69	
Glen Innes	17	3,081	2 14	...	.....	.....	3,081	2 14	11	1,391	3 14	1,639	3 0	2,508	2 0	46
Inverell	38	*13,989	3 0	8	2,054	0 0	11,935	3 0	29	11,076	1 0	859	2 0	14,180	16 8	93	
Tenterfield	33	8,029	2 10	...	.....	.....	8,029	2 10	33	8,029	2 10	.....	.....	6,949	12 4	100
Walcha	14	2,944	1 0	...	.....	.....	2,944	1 0	15	2,842	0 0	102	1 0	5,963	9 2	96
Totals...	203	42,616	3 34	41	4,134	0 0	38,482	3 34	131	31,991	2 4	6,491	1 30	38,923	18 0	83	
Bourke—																	
Bourke	20	408	1 0	...	.....	.....	408	1 0	19	388	1 0	20	0 0	7,600	0 0	95
Brewarrina	17	14,483	3 20	...	.....	.....	14,483	3 20	16	14,162	0 20	321	3 0	10,297	2 0	98
Cobar	66	7,839	0 17	...	.....	.....	7,839	0 17	10	555	1 23	7,283	2 34	644	19 8	7
Totals...	103	22,731	0 37	...	.....	.....	22,731	0 37	45	15,105	3 3	7,625	1 34	18,542	1 8	66
Dubbo—																	
Coonamble	14	496	3 21	...	.....	.....	496	3 21	11	413	2 10	83	1 11	1,033	18 4	83
Dubbo	152	†73,020	1 37	39	28,883	2 0	44,136	3 37	105	43,176	0 37	960	3 0	56,728	2 11	97	
Nyngan	45	16,119	3 0	...	.....	.....	16,119	3 0	36	14,923	0 0	1,196	3 0	15,789	7 1	92
Warren	11	655	0 17	...	.....	.....	655	0 17	...	.....	.....	655	0 17	.....	.....	100
Totals...	222	90,292	0 35	39	28,883	2 0	61,408	2 35	152	58,512	3 7	2,895	3 28	73,551	8 4	95	
Forbes—																	
Barmedman	12	5,554	3 0	1	370	1 0	5,184	2 0	11	5,184	2 0	.....	.....	5,415	5 8	100
Condobolin	2	976	3 0	2	976	3 0	.....	.....	...	.....	.....	.....	.....	.....	.....	...
Forbes	81	‡58,813	2 0	23	15,739	1 0	43,074	1 0	58	43,074	1 0	.....	.....	50,116	13 9	100
Grenfell	16	7,566	2 0	...	.....	.....	7,566	2 0	15	7,542	3 0	23	3 0	8,272	5 1	99
Parkes	61	52,382	3 0	8	7,225	1 0	45,157	2 0	53	45,157	2 0	.....	.....	43,241	5 2	100
Totals...	172	125,294	1 0	34	24,311	2 0	100,982	3 0	137	100,959	0 0	23	3 0	107,045	9 8	99	
Goulburn—																	
Bombala	19	1,300	3 20	...	.....	.....	1,300	3 20	19	1,300	3 20	.....	.....	2,892	17 6	100
Boorowa	20	\$4,492	0 0	1	152	2 0	4,339	2 0	19	4,339	2 0	.....	.....	6,373	12 2	100
Braidwood	2	1,714	2 22	...	.....	.....	1,714	2 22	1	962	2 12	752	0 10	962	11 6	55
Cooma	53	7,094	3 38	26	1,745	1 0	5,349	2 38	14	3,314	1 38	2,035	1 0	4,786	7 0	62	
Eden	24	2,251	3 0	1	69	1 0	2,182	2 0	16	2,055	1 20	1,127	0 20	2,046	15 0	48	
Goulburn	18	3,106	1 30	4	683	0 30	2,423	1 0	9	1,484	0 10	939	0 30	2,482	14 5	61	
Gunning	14	\$3,150	2 0	2	782	0 0	2,368	2 0	5	734	1 0	1,634	1 0	1,358	12 6	30	
Moruya	28	8,885	2 0	...	.....	.....	8,885	2 0	10	2,083	2 0	6,802	0 0	1,517	18 2	23
Queanbeyan	11	1,029	0 30	...	.....	.....	1,029	0 30	11	1,029	0 30	.....	.....	2,045	2 6	100
Yass	14	1,985	3 0	1	80	3 0	1,905	0 0	8	1,088	0 0	817	0 0	1,609	7 6	60	
Young	52	10,347	1 34	3	684	3 0	9,662	2 34	43	‡9,564	2 11	98	0 23	16,543	6 6	99	
Totals...	255	45,359	0 14	38	4,197	2 30	41,161	1 24	155	26,956	1 21	14,205	0 3	42,619	4 9	65	
Grafton—																	
Bellingen	44	5,846	3 0	...	.....	.....	5,846	3 0	8	1,275	3 0	4,571	0 0	1,275	15 0	21
Casino	20	5,226	0 0	...	.....	.....	5,226	0 0	...	.....	.....	5,226	0 0	.....	.....	...
Grafton	25	7,845	1 0	...	.....	.....	7,845	1 0	10	2,156	2 0	5,688	3 0	1,713	3 6	27
Kempsey	19	3,437	0 0	...	.....	.....	3,437	0 0	7	972	3 0	2,464	1 0	1,569	15 0	28
Lismore	144	†43,602	0 0	17	7,155	2 0	36,446	2 0	23	4,946	1 0	31,500	1 0	6,439	18 4	13	
Murwillumbah	35	7,378	2 0	12	3,287	0 0	4,091	2 0	9	1,247	2 0	2,844	0 0	1,905	2 0	30	
Port Macquarie	16	4,993	0 0	...	.....	.....	4,993	0 0	...	.....	.....	4,993	0 0	.....	.....	...
Totals...	303	78,328	2 0	29	10,442	2 0	67,886	0 0	57	10,598	3 0	57,287	1 0	12,903	13 10	15	
Hay—																	
Balranald	28	16,051	3 0	...	.....	.....	16,051	3 0	3	3,573	0 0	12,478	3 0	3,151	14 0	22
Balranald South	22	19,531	1 0	8	5,542	1 0	13,989	0 0	9	10,226	1 0	3,762	3 0	14,312	16 3	73	
Deniliquin	120	48,591	3 0	11	4,369	2 0	44,222	1 0	98	41,152	1 0	3,070	0 0	84,906	14 2	93	
Hay	57	41,491	2 0	5	5,447	0 0	36,044	2 0	37	33,655	0 0	2,389	2 0	41,330	16 8	93	
Hillston	91	62,709	3 20	...	.....	.....	62,709	3 20	30	19,097	0 0	43,612	3 20	13,188	5 0	30
Hillston North	10	180	1 32	...	.....	.....	180	1 32	...	.....	.....	180	1 32	.....	.....	...
Wentworth	43	44,897	3 0	...	.....	.....	44,897	3 0	2	2,458	0 0	42,439	3 0	959	10 0	5
Totals...	371	233,454	1 12	24	15,358	3 0	218,095	2 12	179	110,161	2 0	107,934	0 12	157,849	16 1	50	
Maitland—																	
Cassilis	24	*6,434	1 10	1	349	3 0	5,739	0 10	57	5,022	3 20	716	0 30	8,638	5 3	88	
Dungog	11	1,636	2 10	...	.....	.....	1,636	2 10	8	1,038	3 10	597	3 0	1,602	6 6	63
Gosford	70	7,273	1 23	...	.....	.....	7,273	1 23	28	2,575	1 0	4,703	0 23	2,218	10 10	35
Maitland	68	5,904	0 30	2	125	1 0	5,778	3 30	18	1,353	0 20	4,425	3 10	1,601	7 6	23	
Muswellbrook	4	768	1 0	...	.....	.....	768	1 0	1	199	0 0	569	1 0	232	3 4	26
Newcastle	57	5,185	2 0	...	.....	.....	5,185	2 0	10	600	1 0	4,585	1 0	605	13 9	12
Paterson	23	3,981	1 0	...	.....	.....	3,981	1 0	11	1,674	3 0	2,306	2 0	1,463	17 6	42
Singleton	48	3,474	3 14	...	.....	.....	3,474	3 14	28	2,429	3 0	1,045	0 14	3,821	12 2	70
Scone	13	14,413	2 0	...	.....	.....	14,413	2 0	9	9,293	2 0	5,120	0 0	9,293	10 0	64
Stroud	8	6,850	3 0	...	.....	.....	6,850	3 0	6	4,706	2 0	2,144	1 0	5,941	7 6	68
Taree	55	9,438	1 20	11	2,551	0 0	6,887	1 20	...	.....	.....	6,887	1 20	.....	.....	...
Totals...	381	65,020	1 27	14	3,026	0 0	61,994	1 27	176	28,893	3 10	33,100	2 17	35,418	14 4	47	
Moree—																	
Walgett	19	19,197	1 20	1	640	0 0	18,557	1 20	11	10,390	1 20	8,167	0 0	11,457	14 5	56	
Warialda	5	6,400	0 0	...	.....	.....	6,400	0 0	5	6,400	0 0	.....	.....	6,400	0 0	100
Totals.....	24	25,597	1 20	1	640	0 0	24,9										

SCHEDULE XXV.—continued.

Land Board District and Land District.	Total acreage in Homestead Selection Areas when notified.			Area notified but not yet available for selection, or rendered unavailable since notification, by reservation or other cause.			Area available for Selection.			Area Selected.			Area unselected on 31st December, 1897.			Capital value represented by Land Selected.			Percentage of area selected to area available for selection.	
	No. of Blocks.	Area.		No. of Blocks.	Area.		No. of Blocks.	Area.		No. of Blocks.	Area.		No. of Blocks.	Area.		£ s. d.				
Orange—		a.	r. p.		a.	r. p.		a.	r. p.		a.	r. p.		a.	r. p.		£	s.	d.	
Bathurst	16	188	0 30½	2	13	1 38		174	2 32½	...	...	...	174	2 32½	...	...	...	...	...	...
Cowra	17	184	2 30	...	...	...	15	165	3 15	...	...	...	18	3 15	...	...	460	3	2	90
Lithgow	5	1,864	3 0	1	195	1 0	2	1,669	2 0	2	384	0 0	2	1,285	2 0	...	576	0	0	23
Molong	40	6,558	3 18*	10	1,346	0 14	20	5,212	3 4	20	4,765	0 16	...	447	2 28	...	7,169	11	2	90
Mudgee	59	8,457	3 26*	5	2,010	2 0	46	6,447	1 26	46	5,825	1 26	...	622	0 0	...	9,547	19	10	90
Totals...	137	17,254	1 24½	16	3,565	1 12	83	13,689	0 12½	83	11,140	1 17	...	2,548	2 35½	...	17,753	14	2	81
Sydney—																				
Campbelltown ...	189	5,719	2 28	33	536	0 25	32	5,183	2 3	32	690	1 22	...	4,493	0 21	...	1,306	13	5	13
Liverpool	57	5,237	1 0	...	4	0 0	12	5,233	1 0	12	497	2 0	...	4,735	3 0	...	552	7	6	9
Penrith	148	6,163	2 0	1	53	0 0	1	6,110	2 0	1	29	1 30	...	6,081	0 10	...	35	6	6	5
Picton	16	1,218	1 0	2	95	3 0	2	1,122	2 0	2	78	0 0	...	1,044	2 0	...	65	0	0	7
Milton	10	2,000	0 0	...	...	...	...	2,000	0 0	...	...	...	...	2,000	0 0	...	...	...	...	...
Nowra	8	183	0 20	...	...	...	5	183	0 20	5	128	1 20	...	54	3 0	...	229	11	11	70
Windsor	136	8,786	0 30	1	45	0 0	49	8,741	0 30	49	2,297	0 0	...	6,444	0 30	...	2,999	9	11	25
Totals...	564	29,307	3 38	37	733	3 25	101	28,574	0 13	101	3,720	2 32	...	24,853	1 21	...	5,188	9	3	13
Tamworth—																				
Gunnedah	113	36,927	2 0	...	...	...	83	36,927	2 0	83	29,631	3 0	...	7,295	3 0	...	44,484	5	6	80
Murrurundi	15	642	2 0	...	...	...	15	642	2 0	15	642	2 0	...	...	...	...	8,748	15	0	100
Narrabri	3	1,252	1 0	...	...	...	3	1,252	1 0	3	1,252	1 0	...	...	...	...	1,915	17	6	100
Tamworth	28	9,399	2 36	...	...	...	21	9,399	2 36	21	7,980	1 30	...	1,419	1 6	...	15,800	10	0	85
Totals...	159	48,221	3 36	...	...	...	122	48,221	3 36	122	39,506	3 30	...	8,715	0 6	...	70,949	8	0	82
Wagga Wagga—																				
Albury	45	1,359	3 38	...	...	...	38	1,359	3 38	38	1,327	3 36	...	32	0 2	...	2,863	17	3	97
Cootamundry ...	88	23,364	0 10	...	...	...	78	23,364	0 10	78	20,847	2 20	...	2,516	1 30	...	35,128	6	1	89
Cootamundry Central	7	4,276	0 0	...	...	...	7	4,276	0 0	7	4,276	0 0	...	...	...	...	5,565	16	3	100
Corowa	70	29,076	0 31	...	...	...	70	29,076	0 31	70	29,076	0 31	...	...	...	...	54,922	8	2	100
Narrandera	105	60,273	3 0	6	353	0 0	91	59,920	3 0	91	59,613	3 0	...	307	0 0	...	79,546	8	1	99
Tumut	2	957	1 0	...	...	...	...	957	1 0	...	...	...	...	957	1 0	...	...	...	...	...
Urana	198	63,179	1 0	87	8,242	1 0	105	54,937	0 0	105	54,062	0 0	...	875	0 0	...	85,698	11	0	98
Wagga Wagga ...	176	68,714	1 0	...	...	...	176	68,714	1 0	176	68,714	1 0	...	...	...	...	132,877	6	5	100
Totals.....	691	251,200	2 39	93	8,595	1 0	565	242,605	1 39	565	237,917	3 7	...	4,687	2 32	...	396,602	13	3	98
Grand Totals...	3,585	1,074,679	1 36	368	103,888	1 27	970,791	0 9½	1,919	692,255	2 31	278,535	1 18½	995,206	5 9	71				

* Of these areas 2,211 acres 2 roods 14 perches did not become available during 1897. † Of this area 2,088 acres 7 perches did not become available during 1897.

SCHEDULE XXVI.

RETURN of Applications for Conversion of Conditional Purchases and Conditional Leases into Homestead Selections received from 1st June, 1895, to 31st December, 1897, exclusive of those since withdrawn or refused.

Land Board District and Land District.	From 1st June, 1895, to 31st December, 1896.						From 1st Jan., 1897, to 31st Dec., 1897.						Total.											
	Applications to convert.		C.P.'s included.		C.L.'s included.		Applications to convert.		C.P.'s included.		C.L.'s included.		Applications to convert.		C.P.'s included.		C.L.'s included.							
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.						
Armidale—		a.	r. p.		a.	r. p.		a.	r. p.		a.	r. p.		a.	r. p.		a.	r. p.						
Inverell	1	1,100	0 0	1	300	0 0	2	800	0	...	...	...	1	1,100	0 0	1	300	0 0			
Tenterfield	2	1,441	0 0	3	361	0 0	3	1,080	0	2	958	2 3	478	2	430	2	839	2 0						
Walcha	1	493	2 0	2	135	0 0	2	358	2	1	376	0 1	94	0	282	2	869	2 0						
Bourke—																								
Bourke .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Brewarrina .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Forbes—																								
Condobolin	1	111	0 0	1	111	0 0	...	...	...	...	...	...	1	111	0 0	1	111	0 0
Goulburn—																								
Bega	1	100	0 30	1	100	0 30	...	...	...	...	...	...	1	100	0 30	1	100	0 30
Bombala	1	1,246	2 0	11	1,246	2 0	...	...	...	...	...	...	1	1,246	2 0	11	1,246	2 0
Braidwood	1	100	0 0	1	100	0 0	...	...	...	...	...	...	1	1,120	0 0	3	570	0 0
Goulburn	3	1,984	1 0	10	730	0 0	3	1,254	1	1	160	0 1	40	0	120	4	2,144	1 0						
Gunning .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moruya .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moss Vale .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Queanbeyan	1	350	0 0	2	100	0 0	2	250	0	...	...	...	1	350	0 0	2	100	0 0			
Yass	1	1,280	0 0	2	320	0 0	2	960	0	1	720	0 1	320	0	400	2	2,000	0 0						
Young .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Grafton—																								
Bellingen	1	200	0 0	2	200	0 0	...	...	...	...	...	...	3	549	0 0	6	549	0 0
Casino	1	1,280	0 0	1	640	0 0	1	640	0	...	...	...	1	1,280	0 0	1	640	0 0			
Lismore .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Port Macquarie	1	347	0 0	1	347	0 0	...	...	...	...	...	...	1	105	0 0	1	105	0 0
Hay—																								
Balranald South	1	302	0 0	1	80	0 0	1	222	0	...	...	...	1	302	0 0	1	80	0 0			
Deniliquin .....	...	...	...	...	...	...	...	...	...	...	...	...	3	1,920	0 0	3	1,920	0 0
Maitland—																								
Taree .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Orange—																								
Molong .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wagga Wagga—																								
Cootamundra	1	80	0 0	1	80	0 0	...	...	...	...	...	...	2	240	0 0	2	240	0 0
Narrandera	1	640	0 0	2	640	0 0	...	...	...	...	...	...	1	640	0 0	2	640	0 0
Tumbarumba	3	1,920	0 0	3	1,600	0 0	1	320	0	...	...	...	3	1,920	0 0	3	1,600	0 0			
Tumut .....	...	...	...	...	...	...	...	...	...	...	...	...	1	124	2 0	1	124	2 0
Total	22	12,975	1 30	45	7,090	2 30	17	5,834	3	24	9,462	2 33	7,084	2 8	2,378	46	22,437	3 30	78	14,175	0 30	25	8,262	3

SCHEDULE XXVII.

RETURN showing the Number and Area of Conditional Leases applied for during 1897, with amount of Deposits and Survey Fees received.

Local Land Board District and Land District.	No.	Area.	Deposits.	Survey Fees.	Local Land Board District and Land District.	No.	Areas.	Deposits.	Survey Fees.
		a. r.	£ s. d.	£ s. d.			a. r.	£ s. d.	£ s. d.
Armidale—					Maitland—				
Armidale	36	10,107 1	84 4 9	191 16 10	Cassilis	21	6,814 0	56 16 1	119 16 6
Glen Innes	19	4,244 0	35 7 4	92 12 10	Gosford	1	78 0	0 13 0	3 15 0
Inverell	35	10,197 1	84 19 8	189 11 9	Muswellbrook	1	40 0	0 6 8	3 0 0
Tenterfield	28	5,309 1	44 4 11	132 8 1	Paterson	1	750 0	6 5 0	8 12 6
Walcha	3	660 0	5 10 0	15 0 0	Scone	5	2,104 3	17 10 11	30 13 3
Total	121	30,517 3	254 6 8	621 9 6	Stroud	11	2,481 0	20 13 6	55 4 6
					Taree	6	781 0	6 10 2	24 0 1
Bourke—					Wollombi	4	200 0	1 13 4	12 15 0
Brewarrina East ...	1	1,440 0	12 0 0	11 18 9	Total.....	50	13,248 3	110 8 8	257 16 10
Total	1	1,440 0	12 0 0	11 18 9					
					Moree—				
Dubbo—					Bingara	7	4,393 0	36 12 10	49 7 7
Coonamble	13	6,066 0	50 11 0	87 8 7	Moree	15	14,720 2	122 13 7	131 1 6
Dubbo	41	35,239 1	293 13 3	347 18 4	Walgett	8	9,135 2	76 7 7	78 5 9
Nyngan	7	5,076 2	42 6 1	53 8 6	Warialda	20	11,438 3	95 5 8	143 7 5
Warren	15	16,203 0	135 0 6	137 1 6	Total.....	50	39,687 3	330 19 8	402 2 3
Total	76	62,584 3	521 10 10	625 16 11					
					Orange—				
Forbes—					Bathurst	5	1,810 0	15 1 8	29 14 5
Barmedman	7	3,014 3	25 2 9	44 14 6	Carcoar	6	1,067 0	8 17 10	27 18 10
Do East ...	3	630 0	5 5 0	14 18 2	Cows	3	627 2	5 4 8	14 18 2
Condobolin	8	6,124 1	51 0 10	69 10 1	Lithgow	2	475 0	3 19 2	10 4 5
Forbes	18	10,159 2	84 13 5	133 10 6	Molong	18	5,982 0	49 17 0	104 5 3
Grenfell	1	328 3	2 14 9	6 1 11	Mudgee	16	6,044 0	50 9 4	95 16 5
Parkes	20	8,416 0	70 2 9	129 9 7	Orange	1	320 0	2 13 4	6 0 0
Total	57	28,673 1	238 19 6	398 4 9	Rylstone	21	4,555 0	37 19 2	102 7 8
					Wellington	8	2,922 0	24 7 0	48 5 9
					Total.....	80	23,802 2	198 9 2	439 10 11
Goulburn—									
Bega	2	220 0	1 16 8	7 13 9	Sydney—				
Bombala	8	2,595 0	21 12 6	45 13 3	Milton	3	815 0	6 15 10	16 13 9
Boorowa	10	3,104 2	25 17 6	56 12 8	Nowra	2	396 0	3 6 0	9 14 9
Braidwood	15	3,388 0	28 4 8	73 19 6	Picton	1	120 0	1 0 0	4 2 6
Cooma	20	3,854 1	32 2 6	95 7 3	Windsor	9	1,085 0	9 1 10	36 7 8
Eden	4	680 0	5 13 4	18 3 9	Total.....	15	2,416 0	20 3 8	66 18 8
Goulburn	8	1,194 1	9 19 1	35 6 11					
Gunning	1	40 0	0 6 8	3 0 0	Tamworth—				
Moruya	6	416 2	3 9 5	20 18 2	Coonabarabran ...	10	2,645 2	22 1 0	52 6 5
Moss Vale	4	1,439 0	11 19 10	24 13 9	Gunnedah	12	5,928 1	49 9 6	83 5 2
Queanbeyan	8	1,550 0	12 18 4	38 10 8	Murrurundi	6	2,418 3	20 3 4	37 4 5
Yass	9	3,660 0	30 10 0	58 0 9	Narrabri	13	5,910 1	49 5 1	81 15 2
Young	3	310 0	2 11 8	11 0 8	Tamworth	41	21,158 3	176 6 6	281 9 3
Total	98	22,451 2	187 2 2	489 1 1	Total.....	82	38,061 2	317 5 5	536 0 5
Grafton—					Wagga Wagga—				
Bellingen	2	254 0	2 2 4	8 10 8	Albury	4	1,020 0	8 10 0	21 3 10
Casino	8	1,936 1	16 2 9	40 1 9	Gundagai	4	3,000 0	25 0 0	33 13 3
Grafton	5	715 0	5 19 8	21 11 3	Narrandera	5	1,712 2	19 7 5	33 2 0
Kempsey	1	50 0	0 8 4	3 3 9	Tumbarumba	10	3,760 2	31 6 9	60 6 9
Murwillumbah	2	140 0	1 3 4	7 0 8	Tumut	2	654 0	5 9 0	11 10 8
Port Macquarie	3	200 0	1 13 4	10 2 6	Urana	2	3,219 0	26 16 6	23 14 5
Total	21	3,295 1	27 9 9	90 10 7	Wagga Wagga	2	148 0	1 4 8	7 6 3
					Total.....	29	13,514 0	117 14 4	190 17 2
Hay—					Grand total.....	713	298,819 0	2,498 11 9	4,372 2 2
Balranald South	9	5,539 3	48 13 4	70 6 5					
Deniliquin	7	3,852 1	32 11 3	49 14 0	SUMMARY.				
Hay	8	6,644 0	55 7 4	69 0 1	Central Division	258	170,445 1	1,428 11 1	1,946 8 3
Hillston	9	3,090 0	25 10 0	52 13 10	Eastern „	455	128,373 3	1,070 0 8	2,425 13 11
Total	33	19,126 0	162 1 11	241 14 4					

SCHEDULE XXVIII.

RETURN showing the Number and Area of Conditional Lease Applications confirmed or disallowed in 1897.

Local Land Board District	Land District.	Applications made during 1897				Applications made prior to 1st January, 1897				Total			
		Confirmed		Disallowed		Confirmed		Disallowed.		Confirmed		Disallowed	
		No	a r p	No	a r p	No	a r p	No	a r p	No	a r p	No	a r p
Armidale	Armidale	22	5 406 0 0	3	671 0 0	18	5,149 3 0	4	1,478 0 0	40	10 555 3 0	7	2,149 0 0
	Glen Innes	13	2,680 1 0	3	1,310 0 0	3	469 1 0			16	3 149 2 0	3	1,310 0 0
	Inverell	15	4,810 0 0	6	1,704 2 0	7	2,017 0 0	3	1,569 0 0	22	6,827 0 0	9	3,273 2 0
	Tenterfield	10	2,116 0 0	6	995 3 0	9	2,263 3 0	2	805 0 0	19	4,379 3 0	8	1,800 3 0
	Walcha	2	600 0 0							2	600 0 0		
	Total	62	15,612 1 0	18	4,681 1 0	37	9,899 3 0	9	3 852 0 0	99	25,512 0 0	27	8,533 1 0
Bourke	Brewarrina East	1	1,472 0 0					1	322 0 0	1	1,472 0 0	1	322 0 0
Dubbo	Coonamble	3	1,180 0 0	4	1,885 0 0	13	6,477 0 0	13	7 077 0 0	16	7,657 0 0	17	8,962 0 0
	Dubbo	3	918 0 0	5	5,345 0 0	9	6,347 2 38	3	1,412 3 0	12	7,765 2 38	8	6,757 3 0
	Nyngan	2	2,469 3 0	1	50 0 0	3	2,568 0 0	5	2 966 0 0	5	5,037 3 0	6	3,016 0 0
	Warren	3	1,637 2 0	4	4,874 0 0	16	10,655 0 0	7	3,734 0 0	19	12,342 2 0	11	8,608 0 0
	Total	11	6,255 1 0	14	12,154 0 0	41	26,547 2 38	28	15,189 3 0	52	32,802 3 38	42	27,343 3 0
Forbes	Barnedman	3	653 0 0	1	90 0 0	1	350 0 0	1	150 0 0	4	1,003 0 0	2	240 0 0
	Barnedman East	1	240 0 0	1	240 0 0					1	240 0 0	1	240 0 0
	Condobolin	2	2 420 2 0	2	540 0 0					2	2 425 2 0	2	540 0 0
	Forbes	12	6,607 0 0	4	3,151 2 0	3	577 0 0	1	295 3 0	15	7,184 0 0	5	3,447 1 0
	Grenfell	1	328 3 0					1	660 0 0	1	328 3 0	1	660 0 0
	Parkes	6	2,784 0 0	3	1,590 2 0	5	1,154 2 0			11	3,938 2 0	3	1,595 2 0
	Total	25	13,038 1 0	11	5,617 0 0	9	2,081 2 0	3	1,100 3 0	34	15,119 3 0	14	6,722 3 0
Goulburn	Bombala	4	1,201 0 0	3	780 0 0	4	801 0 0			8	2,002 0 0	3	780 0 0
	Boorowa	4	645 2 0	2	1,280 0 0	2	270 0 0			6	915 2 0	2	1,280 0 0
	Braidwood	5	1,103 0 0	6	1,418 0 0	10	1,356 3 0	2	420 0 0	15	2,509 3 0	8	1,838 0 0
	Cooma	2	365 0 0	1	150 0 0	1	750 0 0			3	1,115 0 0	1	150 0 0
	Eden	2	460 0 0	1	160 0 0	5	814 3 0			7	1,274 3 0	1	160 0 0
	Goulburn	2	390 0 0			7	1,150 2 0	1	117 0 0	9	1,540 2 0	1	117 0 0
	Gunning					3	306 3 0	1	97 3 0	3	306 3 0	1	97 3 0
	Moruya	1	100 0 0	2	142 0 0	6	582 3 0	1	200 0 0	7	682 3 0	3	342 0 0
	Moss Vale	1	300 0 0	1	320 0 0	1	200 0 0			2	500 0 0	1	320 0 0
	Queanbeyan	7	1,430 0 0	1	120 0 0			1	150 0 0	7	1,430 0 0	2	270 0 0
	Yass	1	904 2 0	3	900 0 0	5	1,621 1 0	3	1,936 3 0	6	2,575 3 0	6	2,836 3 0
	Young	1	40 0 0	1	90 0 0	1	960 0 0			2	1,000 0 0	1	90 0 0
		Total	30	7,039 0 0	21	5,360 0 0	45	8,813 3 0	9	2,921 2 0	75	15,852 3 0	30	8,281 2 0
Grafton	Bellingen	3	1,150 1 0			5	301 0 0			5	301 0 0		
	Casno	3	564 0 0							3	1,150 1 0		
	Grafton			1	50 0 0	1	264 0 0			1	564 0 0		
	Murwillumbah			2	80 0 0			1	600 0 0			1	50 0 0
	Port Macquarie											3	680 0 0
	Total	6	1,714 1 0	3	130 0 0	6	565 0 0	1	600 0 0	12	2,279 1 0	4	730 0 0
Hay	Balranald South	6	4,452 2 0	2	915 1 0	4	2,339 1 0			10	6,791 3 0	2	915 1 0
	Deniliquin	1	1,211 0 0	3	1,127 0 0	1	400 0 0			2	1,611 0 0	3	1,127 0 0
	Hay	4	4,038 0 0	3	1,808 2 0	3	3,386 0 0			7	7,424 0 0	3	1,808 2 0
	Hillston	2	287 1 0	6	2,040 0 0	1	321 0 0	1	600 0 0	3	1,108 1 0	7	2,640 0 0
	Total	13	9,988 3 0	14	5,890 3 0	9	6,946 1 0	1	600 0 0	22	16,935 0 0	15	6,490 3 0
Maitland	Cassilis	9	3,675 2 0	6	1,305 1 0	4	802 0 0			13	4,527 2 0	6	1,305 1 0
	Gosford	1	78 0 0							1	78 0 0		
	Muswellbrook			1	40 0 0							1	40 0 0
	Paterson	1	688 0 0							1	688 0 0		
	Scone	1	86 1 0	1	825 0 0	3	2,672 0 0	2	1,069 0 0	4	2,758 1 0	3	1,894 0 0
	Stroud			5	945 2 0			1	330 0 0			6	1,275 2 0
	Taree			2	100 0 0			2	300 0 0			4	400 0 0
Wollombi	3	150 0 0	1	50 0 0					3	150 0 0	1	50 0 0	
	Total	15	4,677 3 0	16	3,265 3 0	7	3,524 0 0	5	1,699 0 0	22	8,201 3 0	21	4,964 3 0
Moree	Bingara	4	1,861 1 0	1	1,903 0 0	9	3,376 0 0	1	310 0 0	13	5,237 1 0	2	2,213 0 0
	Moree	8	9,430 0 0	6	4,229 0 0	3	1,633 1 0	1	1,132 2 0	11	11,063 1 0	7	5,361 2 0
	Walgett			1	1,920 0 0	10	10,863 2 0	2	2,781 0 0	10	10,863 2 0	3	4,701 0 0
	Wyallda	6	2,263 0 0	3	970 0 0	10	3,861 0 0	8	6,307 2 0	16	6,124 1 0	11	7,277 2 0
	Total	18	13,554 1 0	11	9,022 0 0	32	19,734 0 0	12	10,531 0 0	50	33,288 1 0	23	19,553 0 0
Orange	Bathurst	3	1,111 0 0	1	600 0 0	3	701 2 0	2	450 0 0	6	1,812 2 0	3	1,050 0 0
	Carcoar	3	604 3 0			9	2,379 1 0	1	300 0 0	12	2,984 0 0	1	300 0 0
	Cowra	1	204 2 0	2	419 1 0			1	150 0 0	1	204 2 0	3	569 1 0
	Lithgow	1	80 0 0			1	47 1 20			2	127 1 20		
	Molong	4	1,042 2 0	5	1,414 0 0	9	4,079 3 0	1	585 0 0	13	5,122 1 0	6	1,999 0 0
	Mudgee	5	556 0 0	4	1,773 0 0	5	1,400 1 0			10	1,906 1 0	4	1,773 0 0
	Orange	1	382 0 0			1	320 0 0			2	702 0 0		
	Rylstone	12	1,988 0 0	3	900 0 0	3	610 1 0			15	2 598 1 0	3	900 0 0
	Wellington	2	519 0 0	2	597 0 0	23	9,329 0 0	6	2,805 0 0	25	9,848 0 0	8	3,402 0 0
		Total	32	6,487 3 0	17	5,703 1 0	54	18,867 1 20	11	4,290 0 0	86	20,355 0 20	28	9,993 1 0
Sydney	Milton			2	640 0 0							2	640 0 0
	Nowra			2	396 0 0							2	396 0 0
	Picton			1	120 0 0							1	120 0 0
	Windsor	1	126 0 0	4	529 0 0					1	126 0 0	4	529 0 0
	Total	1	126 0 0	9	1,685 0 0					1	126 0 0	9	1,685 0 0
Tamworth	Coonabarrabran	4	818 3 0	3	1 055 2 0	14	7,041 0 0	2	200 0 0	18	7,859 3 0	5	1,255 2 0
	Gunnedah	5	1,936 3 0	5	3,028 0 0	3	700 0 0			8	2,636 3 0	5	3,028 0 0
	Murrurundi	2	1 462 2 0	1	100 0 0	1	221 0 0			3	1,683 2 0	1	100 0 0
	Narrabri	6	2,537 0 0	2	2,153 1 0	4	2,521 0 0	1	1,915 0 0	10	5,058 0 0	3	4,048 1 0
	Tamworth	17	6,409 0 0	5	2,700 0 0	21	8 390 3 0			38	15,304 3 0	5	2,700 0 0
		Total	34	13,164 0 0	16	9,016 3 0	43	19,378 3 0	3	2,115 0 0	77	32,542 3 0	19	11,131 3 0
Wagga Wagga	Albury					1	484 0 0	2	460 0 0	1	484 0 0	2	465 0 0
	Cootamundra					1	277 0 0			1	277 0 0	3	2,100 0 0
	Gundagai			3	2,100 0 0							2	721 3 0
	Narrandera			1	542 0 0			1	179 3 0				
	Tumbarumba			1	160 0 0					1	160 0 0		
	Tumut			1	120 0 0					1	960 0 0		
	Urana			1	1,299 0 0					1	1,299 0 0		
Wagga Wagga	1	68 0 0	1	68 0 0	4	657 1 0	4	1,413 1 0	5	725 1 0	5	1,481 1 0	
	Total	1	68 0 0	7	4,129 0 0	8	2,538 1 0	7	2,058 0 0	9	2,606 1 0	14	6,187 0 0
	Grand Totals	249	93,197 2 0	157	66,654 3 0	291	118,896 1 18	90	45,284 0 0	540	212,093 3 18	247	111,938 3 0

SCHEDULE XXIX.

RETURN showing the Number and Area of Conditional Leases Transferred and the Number of Transfers passed during the year 1897.

Land Board and Land District.	No. of Leases Transferred.	No. of Transfers passed.	Area.			Land Board and Land District.	No. of Leases Transferred.	No. of Transfers passed.	Area.		
			a.	r.	p.				a.	r.	p.
Armidale—						Maitland—					
Armidale	73	94	34,031	2	0	Cassilis	42	49	16,067	2	0
Glen Innes	16	19	7,285	3	0	Dungog	1	2	101	3	0
Inverell	41	73	17,761	2	0	Muswellbrook	4	4	809	1	0
Tenterfield	5	5	1,380	0	0	Paterson	8	9	1,233	2	0
Walcha	18	19	8,120	0	0	Scone	32	42	21,778	1	0
Total	153	210	68,628	3	0	Singleton	7	8	1,796	2	0
Bourke—						Stroud	10	12	4,359	3	0
Bourke	1	1	300	0	0	Taree	8	9	1,408	1	0
Brewarrina	20	26	30,947	0	0	Wollombi	1	1	120	0	0
Wilcannia	1	1	590	0	0	Total	113	136	47,674	3	0
Total	22	28	31,837	0	0	Moree—					
Dubbo—						Bingara	10	14	10,190	0	0
Coonamble	112	171	145,163	1	0	Moree	104	159	110,088	3	0
Dubbo	95	145	77,660	0	0	Walgett	42	55	62,000	2	0
Nyngan	36	47	60,980	0	0	Warialda	49	70	31,904	2	0
Warren	36	51	43,718	1	0	Total	205	298	214,183	3	0
Total	279	414	327,521	2	0	Orange—					
Forbes—						Bathurst	17	19	5,256	3	0
Barmedman	35	48	36,553	3	0	Carcoar	40	65	19,364	2	0
Do East	9	17	3,584	0	0	Cowra	19	31	7,861	3	0
Condobolin	48	75	62,570	1	0	Lithgow	14	16	4,757	0	0
Forbes	32	58	21,178	1	0	Molong	46	70	21,407	0	0
Grenfell	20	35	16,123	1	0	Mudgee	15	17	5,135	0	0
Parkes	54	77	64,812	3	0	Orange	4	6	1,483	3	0
Total	198	310	204,822	1	0	Rylstone	23	31	9,255	1	0
Goulburn—						Wellington	48	78	18,133	3	0
Bega	3	3	280	0	0	Total	226	333	92,654	3	0
Bombala	4	6	1,209	1	0	Sydney—					
Boorowa	33	47	8,784	3	0	Milton	1	1	60	0	0
Braidwood	6	9	1,695	0	0	Nowra	1	2	235	0	0
Cooma	48	68	13,855	1	0	Picton	7	8	2,630	0	0
Eden	5	9	1,116	0	0	Total	9	11	2,925	0	0
Goulburn	33	37	5,550	1	0	Tamworth—					
Gunning	37	39	7,817	3	0	Coonabarabran	20	31	12,348	3	0
Moruya	8	10	1,471	2	0	Gunnedah	48	80	51,876	0	0
Moss Vale	13	16	2,236	3	0	Murrurundi	20	25	7,284	2	0
Queanbeyan	20	23	3,877	1	0	Narrabri	76	115	88,884	1	0
Yass	13	14	3,453	0	0	Tamworth	117	179	51,947	0	0
Young	29	37	11,322	2	0	Total	281	430	212,340	2	0
Total	252	318	62,669	1	0	Wagga Wagga—					
Grafton—						Albury	8	10	3,479	2	0
Bellingen	3	6	270	0	0	Cootamundra	16	23	8,019	1	0
Casino	11	15	5,945	3	0	Do Central	3	3	318	2	0
Grafton	17	23	3,864	1	0	Gundagai	11	26	8,795	0	0
Kempsey	7	8	2,038	0	0	Narrandera	29	47	29,183	2	0
Lismore	1	2	308	3	0	Tumbarumba	9	10	5,524	2	0
Port Macquarie	1	1	100	0	0	Tumut	9	11	1,668	3	0
Total	40	55	12,526	3	0	Urana	7	14	5,293	0	0
Hay—						Wagga Wagga	15	29	10,510	3	0
Balranald	2	2	2,137	2	0	Total	107	173	72,792	3	0
Balranald South	6	11	5,667	2	0						
Deniliquin	7	7	6,402	0	0						
Hay	70	90	76,032	1	0						
Hillston	3	6	4,031	1	0						
Total	88	116	94,270	2	0						

	Total No. of Leases Transferred.	Total No. of Transfers passed	Area.		
			a.	r.	p.
Eastern Division	992	1,364	377,381	3	0
Central Division	957	1,438	1,033,491	1	0
Western Division	24	30	33,974	2	0
Grand total	1,973	2,832	1,444,847	2	0

SCHEDULE XXX.

RETURN showing the Total Number, Area, and Rent of Conditional Leases notified as Forfeited during the year 1897.

Land Board District and Land District.	No.	Area.	Rent.	Land Board District and Land District.	No.	Area.	Rent.
Armidale—		acres.	£ s. d.	Maitland—		acres.	£ s. d.
Armidale	9	4,485½	47 19 7	Cassilis	1	240	3 0 0
Glen Innes	2	1,083	17 0 6	Muswellbrook	1	120	0 10 0
Inverell	2	510	6 2 6	Raymond Terrace	1	265½	3 6 5
Tenterfield	5	2,755	37 11 4	Scone	1	45	0 11 3
Walcha	10	2,894½	31 17 7	Singleton	1	150	1 17 6
Total	28	11,728	140 11 6	Stroud	2	902	11 0 10
Bourke—				Taree	7	3,161½	33 6 2
Cobar	1	302	2 10 4	Total	14	4,883½	53 12 2
Willyama	1	367½	3 1 4	Moree—			
Total	2	669½	5 11 8	Moree	1	960	10 8 0
Dubbo—				Walgett	2	3,840	55 4 0
Coonamble	2	299½	4 1 2	Warialda	1	300	5 0 0
Warren	2	1,869	31 3 0	Total	4	5,100	70 12 0
Total	4	2,168½	35 4 2	Orange—			
Forbes—				Bathurst	6	1,820½	26 11 5
Barmedman	3	3,593	47 18 1	Carcoar	5	1,576	16 19 3
Condoblin	1	1,920	10 0 0	Cowra	1	300	2 16 3
Parkes	2	1,350	12 10 0	Lithgow	3	540	7 0 0
Total	6	6,863	70 8 1	Molong	6	1,600	17 13 5
Goulburn—				Mudgee	1	969	12 0 0
Bega	2	187	2 1 2	Orange	1	582½	6 13 6
Bombala	2	244½	3 17 3	Wellington	1	517	5 7 9
Boorowa	2	1,151	9 19 10	Total	24	7,905	95 1 7
Braidwood	1	120	3 0 0	Sydney—			
Cooma	4	3,460½	32 19 11	Milton	1	388	4 17 0
Eden	1	200	2 10 0	Picton	2	750	8 15 0
Goulburn	10	1,498½	17 18 7	Total	3	1,138	13 12 0
Gunning	6	2,100	18 19 8	Tamworth—			
Moruya	1	180	1 6 3	Gunnedah	2	679	6 6 1
Moss Vale	3	734½	11 9 1	Tamworth	6	3,343	35 10 9
Queanbeyan	2	420	4 12 6	Total	8	4,022	41 16 10
Yass	3	361½	3 15 4	Wagga Wagga—			
Total	37	10,657	112 8 9	Albury	1	960	10 0 0
Grafton—				Cootamundra	2	907½	13 6 11
Bellingen	2	906	10 15 5	Gundagai	1	210	3 10 0
Casino	1	310	4 10 5	Tumbarumba	1	580	6 0 10
Grafton	5	1,786	31 8 0	Tumut	8	2,493	20 7 9
Kempsey	5	1,628	21 6 4	Total	13	5,150½	53 5 6
Lismore	2	319	3 3 9	SUMMARY.			
Murwillumbah	1	800	10 0 0	Eastern Division	143	50,984½	591 13 8
Port Macquarie	2	430	6 6 8	Central "	25	21,719	255 2 8
Total	18	6,179	87 10 7	Western "	4	2,589½	21 2 2
Hay—				Grand Total	172	75,293	867 18 6
Deniliquin	1	133	3 6 6				
Hay	4	2,235½	27 13 4				
Hillston	4	4,540	41 12 6				
Wentworth	2	1,920	15 10 6				
Total	11	8,823½	88 2 10				

SCHEDULE XXXI.

RETURN showing the Total Number of Conditional Leases converted into Additional Conditional Purchases under section 25, Act of 1889, during the year 1897.

Division.	Wholly converted.	Partly converted.	Total number.	Area converted.	Rent of area converted.
Central	34	37	71	a. r. p.	£ s. d.
Eastern	57	39	96	32,701 3 0	413 4 11
Western .....	...	...	...	18,577 0 30	268 16 10
Total	91	76	167	51,278 3 30	682 1 9

SCHEDULE XXXII.

RETURN showing Conditional Leases Gazetted during the year 1897, and the Conditional Leases in existence on the 31st December, 1897.

Division of the Colony.	Conditional Leases Gazetted in 1897.			Gazetted Conditional Leases in existence on the 31st December, 1897.			Conditional Leases in existence on the 31st December, 1897, inclusive of those applied for under the Act of 1889, and not yet dealt with.		
	No.	Area.	Rent.	No.	Area.	Rent.	No.	Area.	Rent.
Central	234	a. r. p.	£ s. d.	7,767	a. r. p.	£ s. d.	7,968	a. r. p.	£ s. d.
Eastern	359	141,064 0 38	1,677 11 3	14,331	7,643,146 0 34	90,684 10 8	14,604	8,015,663 0 29	93,788 17 8
Western .....	...	98,638 1 20	986 10 4	199	4,808,450 1 19½	58,111 4 7	199	4,896,599 3 19	58,845 16 3
Total	593	239,702 2 18	2,664 1 7	22,297	12,690,078 0 32½	151,284 12 6	22,771	13,150,749 2 27	155,123 11 2

SCHEDULE XXXIII.

RETURN of Sales by Auction during the year 1897.

Land Board and Land District.	Town Land					Suburban Land.					Country Land.				
	Offered.		Sold.		Amount Realised.	Offered.		Sold.		Amount Realised.	Offered.		Sold.		Amount Realised.
	Lots.	Area.	Lots.	Area.		Lots.	Area.	Lots.	Area.		Lots.	Area.	Lots.	Area.	
Armidale—		a. r. p.		a. r. p.	£ s. d.		a. r. p.		a. r. p.	£ s. d.		a. r. p.		a. r. p.	£ s. d.
Armidale	98	39 0 21	14	4 1 31½	156 5 0	4	45 1 1	...	.....	.....	14	1,717 3 0	8	504 2 20	682 7 6
Glen Innes .....	...	.....	...	.....	.....	1	2 0 0	...	.....	.....	5	655 2 0	3	608 1 0	767 6 3
Inverell	5	2 2 0	5	2 2 0	107 10 0	4	17 1 37	2	8 2 38	45 0 0	5	403 0 0	2	228 0 0	329 11 0
Tenterfield .....	...	.....	...	.....	.....	...	.....	...	.....	.....	22	495 3 38½	6	346 2 0	436 10 0
Walcha .....	...	.....	...	.....	.....	...	.....	...	.....	.....	2	80 0 0	1	40 0 0	50 0 0
Bourke—															
Bourke .....	...	.....	...	.....	.....	...	.....	...	.....	.....	1	3 0 0	1	3 0 0	30 0 0
Brewarrina .....	...	.....	...	.....	.....	...	.....	...	.....	.....	1	210 3 0	1	210 3 0	263 8 9
Cobar	47	23 1 0	7	3 1 0	29 7 6	...	.....	...	.....	.....	1	12 0 0	1	12 0 0	60 0 0
Wilcannia .....	...	.....	...	.....	.....	1	1 3 39½	1	1 3 29½	16 0 0	...	.....	...	.....	.....
Willyama	22	5 1 13	...	.....	.....	...	.....	...	.....	.....	...	.....	...	.....	.....
Dubbo—															
Coonamble	60	26 3 16	39	17 2 21	699 8 0	112	1,390 1 32	55	514 3 11	1,914 1 0	23	2,627 0 0	3	120 0 0	155 0 0
Dubbo	29	14 0 0	20	9 3 0	136 10 0	36	112 3 11½	17	36 0 4½	295 14 4	6	533 0 0	4	297 0 0	398 7 6
Nyngan	137	66 3 0	28	12 1 0	622 2 6	19	109 0 21	4	8 2 0	88 0 0	8	1,170 2 0	6	671 2 0	844 7 6
Warren	109	48 2 7	19	9 0 7	728 0 0	74	755 3 26	8	86 1 5	548 10 0	21	3,533 2 0	11	1,843 0 0	2,303 15 0
Forbes—															
Barmedman	26	6 2 0	19	4 3 0	181 0 0	54	140 1 23	54	140 1 23	634 0 0	17	2,215 3 0	1	63 0 0	78 15 0
Condobolin	1	0 1 0	...	.....	.....	10	21 2 2	...	.....	.....	7	858 1 0	6	751 2 0	988 15 8
Forbes	2	0 2 0	...	.....	.....	7	31 0 20	2	23 3 12	59 18 6	14	1,213 2 3	10	937 1 36	1,403 16 11
Grenfell	5	2 2 0	4	2 0 0	19 0 0	2	4 1 30	2	4 1 30	43 0 0	2	137 2 0	1	35 1 0	52 18 10
Parkes	73	23 1 23	9	2 2 23	121 11 0	79	153 3 7	14	18 1 18	116 0 0	12	240 3 30	6	21 0 0	64 10 0
Goulburn—															
Bega	3	1 1 13	...	.....	.....	7	18 1 17	4	12 2 8	135 0 0	13	417 0 26	9	312 1 16	2,122 4 0
Bombala .....	...	.....	...	.....	.....	...	.....	...	.....	.....	12	707 1 0	6	434 1 30	767 11 8
Boorowa .....	...	.....	...	.....	.....	...	.....	...	.....	.....	6	402 0 0	1	40 0 0	60 0 0
Braidwood .....	...	.....	...	.....	.....	1	2 0 0	1	2 0 0	9 0 0	3	92 0 0	3	92 0 0	136 0 0
Cooma	110	26 0 16½	1	0 1 23½	6 0 0	25	103 2 22½	4	10 0 0	26 0 0	7	196 0 7	7	196 0 7	485 8 3
Eden .....	...	.....	...	.....	.....	1	11 0 20	...	.....	.....	1	37 0 0	1	37 0 0	46 5 0
Goulburn .....	...	.....	...	.....	.....	...	.....	...	.....	.....	5	188 2 0	1	21 0 0	32 0 6
Gunning .....	...	.....	...	.....	.....	...	.....	...	.....	.....	2	57 0 20	...	.....	.....
Moruya .....	...	.....	...	.....	.....	...	.....	...	.....	.....	2	34 0 29½	...	.....	.....
Moss Vale	10	4 3 34	...	.....	.....	...	.....	...	.....	.....	2	10 0 0	...	.....	.....
Queanbeyan	16	3 3 26	13	3 0 26	104 0 0	...	.....	...	.....	.....	6	1 0 33½	6	1 0 33½	175 15 0
Young	13	3 0 23	13	3 0 23	126 0 0	19	25 2 38	15	19 3 10	194 16 0	6	36 3 20	2	14 0 0	35 0 0

SCHEDULE XXXIII—continued.

Land Board and Land District.	Town Land.					Suburban Land.					Country Land.				
	Offered.		Sold.		Amount Realised.	Offered.		Sold.		Amount Realised.	Offered.		Sold.		Amount Realised.
	Lots.	Area.	Lots.	Area.		Lots.	Area.	Lots.	Area.		Lots.	Area.	Lots.	Area.	
		a. r. p.		a. r. p.	£ s. d.		a. r. p.		a. r. p.	£ s. d.		a. r. p.		a. r. p.	£ s. d.
Grafton—															
Bellingan	16	7 1 6½	12	5 1 29¾	172 5 0	13	16 3 8½	...	.....	.....	...	.....	...	.....	.....
Casino	27	9 1 17	19	5 2 18	303 10 0	32	72 1 35	4	10 0 0	60 0 0	5	220 1 20	3	14 2 0	37 10 0
Grafton	145	62 2 23¼	12	5 0 17	200 0 0	40	170 3 5	7	60 2 0	189 0 0	21	340 1 3	10	160 3 20	481 13 9
Lismore	30	7 3 1¼	30	7 3 1¼	775 10 0	8	81 0 28½	4	42 0 16½	217 10 0	4	7 2 29½	3	6 2 17½	42 10 0
Murwillumbah ..	7	2 2 1	...	.....	.....	17	135 0 19	9	58 3 20	178 0 0	...	.....	...	.....	.....
Port Macquarie ..	70	28 2 23½	3	0 3 0	6 0 0	...	.....	...	.....	.....	9	541 3 0	2	120 0 0	230 0 0
Hay—															
Balranald .....	...	.....	...	.....	.....	...	.....	...	.....	.....	1	40 0 0	...	.....	.....
Deniliquin	21	10 2 0	...	.....	.....	4	40 3 36	...	.....	.....	25	2,314 1 0	14	1,112 0 0	2,203 11 4
Hay	54	14 2 17	2	0 2 0	66 0 0	7	125 0 0	...	.....	.....	40	6,678 0 0	19	2,942 1 0	3,677 16 3
Hillston	60	15 0 0	6	1 2 0	41 0 0	...	.....	...	.....	.....	...	.....	...	.....	.....
Hillston North ..	335	81 3 21	1	0 1 0	16 10 0	...	.....	...	.....	.....	...	.....	...	.....	.....
Wentworth	27	13 0 30	2	1 0 0	11 0 0	40	19 3 15	1	0 2 37	5 0 0	...	.....	...	.....	.....
Maitland—															
Cassilis	54	26 3 25½	7	3 1 37½	28 0 0	22	136 1 28	1	1 0 9½	4 0 0	2	55 0 0	2	55 0 0	78 15 0
Muswellbrook ..	...	.....	...	.....	.....	1	1 1 34	1	1 1 34	21 0 0	...	.....	...	.....	.....
Newcastle .....	...	.....	...	.....	.....	...	.....	...	.....	.....	5	71 1 12¼	2	0 1 29	170 0 0
Paterson .....	...	.....	...	.....	.....	...	.....	...	.....	.....	1	40 0 0	1	40 0 0	50 0 0
Raymond Terrace ..	79	36 0 17½	2	1 0 0	8 0 0	27	147 3 14	14	21 0 14	107 10 0	4	279 3 0	...	.....	.....
Scone .....	...	.....	...	.....	.....	2	4 2 17	2	4 2 17	41 0 0	6	975 0 0	...	.....	.....
Singleton .....	...	.....	...	.....	.....	10	42 1 13	3	24 2 32	77 0 0	13	305 3 29	1	27 3 0	34 13 9
Stroud	3	1 2 0	3	1 2 0	24 0 0	...	.....	...	.....	.....	1	160 0 0	1	160 0 0	201 0 0
Taree	67	26 3 35½	28	8 0 27	142 10 0	35	158 1 7½	12	39 0 19	104 15 0	14	383 2 1	5	78 0 24	105 5 11
Wollombi	15	7 0 30	...	.....	.....	7	12 1 33	...	.....	.....	...	.....	...	.....	.....
Moree—															
Bingara	66	33 0 0	4	2 0 0	25 0 0	9	9 2 1	...	.....	.....	1	2 0 0	1	2 0 0	7 10 0.
Moree	19	9 2 0	...	.....	.....	...	.....	...	.....	.....	2	627 0 0	2	627 0 0	881 2 6
Walgett	5	2 1 15	...	.....	.....	...	.....	...	.....	.....	...	.....	...	.....	.....
Walgett North ..	79	39 2 0	13	6 2 0	62 15 6	...	.....	...	.....	.....	...	.....	...	.....	.....
Warialda .....	...	.....	...	.....	.....	...	.....	...	.....	.....	5	794 0 0	5	794 0 0	1,000 15 0

SCHEDULE XXXIV.

RETURN of After Auction Sales, under Section 56 of the Crown Lands Act of 1895, during the year 1897.

Land Board and Land District.	No. of Applications received.	No. of Applications refused or withdrawn.	No. of Applications of which approval was Gazetted.	Applications, approval of which was Gazetted during the year 1897.								
				Town.			Suburban.			Country.		
				No. of Lots.	Area.	Amount Realised.	No. of Lots.	Area.	Amount Realised.	No. of Lots.	Area.	Amount Realised.
				a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.	
Armidale—												
Armidale	5	...	6 4	1 3 35	67 10 0	4	0 3 20	28 0 0	1	20 2 10	39 16 9	
Glen Innes	3	...	4 3	1 2 0	35 0 0	1	19 0 30	48 0 0	...	.....	.....
Inverell	2	...	2	.....	.....	2	8 2 39	45 0 0	...	.....	.....
Tenterfield.....	...	...	1	.....	.....	...	.....	.....	1	36 3 0	103 7 2
Bourke—												
Cobar	3	...	2 2	1 0 0	8 0 0	...	.....	.....	...	.....	.....
Dubbo—												
Coonamble	17	17	...	.....	.....	...	.....	.....	...	.....	.....
Dubbo	20	...	20 15	6 0 0	58 10 0	12	105 1 14	409 10 0	...	.....	.....
Nyngan	19	...	19 21	10 2 0	255 0 0	4	10 0 0	35 0 0	...	.....	.....
Warren	5	1	4	.....	.....	4	33 2 2	183 0 0	...	.....	.....
Forbes—												
Condobolin	1	...	1 1	0 1 0	3 0 0	...	.....	.....	...	.....	.....
Forbes	5	...	5	.....	.....	7	9 1 8	85 0 0	...	.....	.....
Grenfell.....	14	3	15 15	6 3 13½	60 10 0	...	.....	.....	...	.....	.....
Parkes	1	...	1	.....	.....	...	.....	.....	1	6 2 30	26 10 0
Goulburn—												
Bega	5	...	5 13	4 0 9½	34 10 0	1	9 2 37	24 10 0	...	.....	.....
Braidwood.....	4	...	7	.....	.....	7	27 2 16	94 15 0	...	.....	.....
Cooma	8	...	7 9	3 0 0	44 10 0	3	26 0 35	72 0 0	...	.....	.....
Eden	1	...	1 1	0 2 0	4 0 0	...	.....	.....	...	.....	.....
Gunning	3	...	2	.....	.....	2	22 1 24	56 10 0	...	.....	.....
Moruya	4	...	4 3	1 0 22	11 0 0	1	0 2 29	2 19 0	...	.....	.....
Moss Vale	1	...	1 1	0 2 0	4 0 0	...	.....	.....	...	.....	.....
Queanbeyan	3	...	3	.....	.....	...	.....	.....	...	.....	.....
Young	14	...	14 3	1 0 0	46 10 0	3	4 0 10	28 2 0	11	103 2 28	284 14 2	
Grafton—												
Bellingen	34	...	30 29	10 0 10	166 0 0	6	58 2 11	147 10 0	1	5 2 35	17 5 0	
Casino	4	...	4 8	3 3 39	60 10 0	...	.....	.....	...	.....	.....
Grafton	13	1	13 9	2 3 34½	274 10 0	3	9 1 37	35 0 0	1	36 2 30	165 2 0	
Kempsey	4	...	4	.....	.....	4	42 3 10	107 10 0	...	.....	.....
Lismore.....	9	1	10 4	1 1 25½	34 0 0	5	42 3 23½	262 10 0	1	40 0 0	80 0 0	
Port Macquarie	12	1	13 13	6 2 0	52 0 0	2	16 2 30	42 0 0	...	.....	.....
Hay—												
Deniliquin—												
Deniliquin	1	...	1 1	0 2 0	5 0 0	...	.....	.....	...	.....	.....
Hay	9	...	9 9	2 3 28	586 10 0	...	.....	.....	...	.....	.....
Hay North	1	...	5	.....	.....	5	2 2 20	34 0 0	...	.....	.....
Hillston.....	13	...	11 16	4 0 0	65 0 0	...	.....	.....	...	.....	.....
Wentworth	1	...	1 1	0 2 0	20 0 0	...	.....	.....	...	.....	.....
Maitland—												
Gosford	9	...	9	.....	.....	...	.....	.....	11	158 0 10	284 2 2
Maitland	1	...	1 1	0 1 23	31 10 0	...	.....	.....	...	.....	.....
Newcastle	1	...	2 2	1 0 0	10 0 0	...	.....	.....	...	.....	.....
Raymond Terrace.....	3	1	2 1	0 2 0	4 0 0	1	9 3 10	25 0 0	...	.....	.....
Scene	1	...	1 1	0 2 0	5 0 0	...	.....	.....	...	.....	.....
Singleton	3	...	2	.....	.....	1	1 3 16	9 0 0	1	2 0 0	10 0 0
Tarce	15	...	15 22	10 2 12½	88 0 0	1	1 1 30½	4 0 0	1	44 1 0	55 6 3	
Wollombi	2	...	2 2	1 0 0	10 0 0	...	.....	.....	...	.....	.....
Moree—												
Bingara	3	1	2 2	1 0 0	37 10 0	...	.....	.....	...	.....	.....
Moree	1	...	1 1	0 2 0	4 10 0	...	.....	.....	...	.....	.....
Walgett North.....	26	1	23 29	14 2 0	162 0 0	...	.....	.....	...	.....	.....
Wariaida .....	...	...	1 1	0 1 35	9 0 0	...	.....	.....	...	.....	.....
Orange—												
Bathurst	1	...	1	.....	.....	...	.....	.....	1	1 2 15½	7 10 0
Carcoar	11	...	7 7	3 1 30	34 10 0	...	.....	.....	...	.....	.....
Cowra	21	2	22 2	0 3 34½	35 0 0	20	135 0 39	572 0 0	...	.....	.....
Lithgow.....	4	...	1 1	0 2 0	10 0 0	...	.....	.....	...	.....	.....
Molong	6	1	5 3	1 0 6½	9 0 0	4	12 2 22	56 15 0	...	.....	.....
Mudgee	14	...	1 1	0 1 8	10 0 0	...	.....	.....	...	.....	.....
Rylstone	1	...	1 1	0 1 39	5 10 0	...	.....	.....	...	.....	.....
Wellington	25	3	22 20	6 0 7½	112 10 0	2	7 2 6	55 10 0	...	.....	.....
Sydney—												
Campbelltown	2	...	2	.....	.....	2	3 0 35½	16 10 0	...	.....	.....
Liverpool	15	...	14	.....	.....	14	24 2 27	214 0 0	6	24 3 17	252 0 0
Metropolitan.....	10	...	9 5	2 1 0	55 0 0	...	.....	.....	9	2 3 24	497 0 0
Nowra	2	...	2	.....	.....	...	.....	.....	2	16 3 36	42 13 6
Parramatta	10	...	9	.....	.....	10	135 1 20	414 0 0	3	9 1 11	70 0 0
Penrith	14	1	14 14	6 2 0½	103 0 0	2	32 3 0	82 0 0	...	.....	.....
Picton	1	...	1 2	1 0 0	20 0 0	...	.....	.....	...	.....	.....
Windsor	10	1	8 2	0 2 3½	45 0 0	4	20 3 18	81 0 0	3	17 1 1	62 0 0	
Tamworth—												
Coonabarabran	1	1	...	.....	.....	...	.....	.....	2	14 1 26	180 10 0
Gunnedah	18	...	19 17	7 0 19	435 0 0	...	.....	.....	...	.....	.....
Murrurundi	1	...	1 1	0 2 0	10 0 0	...	.....	.....	...	.....	.....
Tamworth	14	3	12 13	5 1 3	269 10 0	2	14 0 30	162 0 6	...	.....	.....

SCHEDULE XXXIV.—continued.

Land Board and Land District.	No. of Applications received.	No. of Applications refused or withdrawn.	No. of Applications of which approval was Gazetted.	Applications, approval of which was Gazetted during the year 1897.								
				Town.			Suburban.			Country.		
				No. of Lots.	Area.	Amount Realised.	No. of Lots.	Area.	Amount Realised.	No. of Lots.	Area.	Amount Realised.
Wagga Wagga—				a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.	
Albury	18	2	26	39	10 1 32	180 0 0	3	6 3 14	26 10 0	...	...
Cootamundra	17	1	12	...	...	...	13	22 2 35	81 10 0	6	90 2 16
Corowa	39	20	31	57	23 3 2	359 13 0	2	2 0 0	8 0 0	...	...
Gundagai	5	...	5	4	1 2 0	20 0 0	4	5 3 39½	36 0 0	...	...
Narrandera	2	...	3	3	1 2 0	21 10 0	...	...	...	...	...
Tumbarumba	1	...	2	2	1 0 0	21 0 0	...	...	...	...	...
Tumut	3	...	5	7	1 3 0	52 10 0	3	11 1 31	47 0 0	...	...
Urana	2	...	2	...	...	...	2	14 0 28	37 1 0	...	...
Wagga Wagga	16	6	16	13	6 0 19	179 10 0	3	14 0 38	63 10 0	...	...
Totals.....	588	68	536	457	183 2 12½	4,250 3 0	169	928 2 35	3,732 2 6	62	632 1 9½	
											2,383 13 11	

£ s. d.

NOTE.—Town Land—Average price per acre realised..... 23 3 0½
Suburban land— " " 4 0 4½
Country land— " " 3 15 4½

GRAND TOTAL (Town, Suburban, and Country lands alienated), 688 lots; area, 1,744 a. 2 r. 17 p.; amount realised, £10,365 19s. 5d.

SCHEDULE XXXV.

RETURN of Deposits and Instalments forfeited during 1897, under the 62nd Section of the Crown Lands Act of 1884 and 1st Section of the Crown Lands (Auction Sales Balances) Act of 1887, on account of non-payment of balance of purchase money within the required time.*

Land Board District.	Land District.	Town.			Suburban.			Country.		
		No. of Lots.	Area.	Amount Forfeited.	No. of Lots.	Area.	Amount Forfeited.	No. of Lots.	Area.	Amount Forfeited.
Armidale.....	Armidale	2	a. r. p. 1 0 0	a. r. p. 17 15 0	4	a. r. p. 9 1 25½	a. r. p. 18 6 3	...	a. r. p.	a. r. p.
Bourke	Bourke	8	2 0 0	55 0 0	...	...	...	...	...	...
	Willyama	4	1 0 0	7 5 0	...	...	...	...	...	...
Dubbo	Dubbo	3	1 1 0	3 17 6	2	3 1 20	4 17 6	...	...	...
	Nyngan	1	0 2 0	12 10 0	3	16 1 7	19 2 6	...	...	...
Forbes	Barnedman	16	5 2 0	50 8 6	...	...	...	...	...	...
	Condobolin .....	...	...	...	1	2 0 0	1 5 0	...	...	...
	Forbes	2	2 1 3	6 5 8	5	25 3 35	20 15 0	...	...	...
	Grenfell .....	...	...	...	1	0 2 20	1 12 6	1	4 0 16	3 11 10
	Parkes	3	1 1 0	7 15 0	2	2 0 0	7 10 0	...	...	...
Goulburn	Bega	1	0 1 20	1 0 0	...	...	...	...	...	...
	Bombala .....	...	...	...	...	...	...	1	139 2 0	104 12 6
	Boorowa .....	...	...	...	1	8 2 35	5 10 0	...	...	...
	Cooma	8	2 1 0	9 0 0	1	6 2 14	16 10 0	...	...	...
	Eden	1	0 1 12	1 0 0	...	...	...	...	...	...
	Moruya	2	0 3 10½	2 0 0	...	...	...	...	...	...
	Moss Vale .....	...	...	...	...	...	...	1	48 0 0	42 12 0
	Goulburn .....	...	...	...	1	3 0 32	3 5 0	...	...	...
	Young	6	2 1 0	69 14 0	...	...	...	...	...	...
Grafton	Bellingen	{ 1	0 1 20½	1 5 0	{ ...	...	...	...	...	...
	Bellingen	{ 1	0 1 16	2 10 0	{ ...	...	...	...	...	...
	Grafton	11	4 3 19	26 7 11	2	2 3 21	7 10 0	...	...	...
	Lismore	1	0 2 0	5 0 0	1	0 3 24	7 0 0	...	...	...
Hay	Deniliquin	3	2 0 0	11 0 0	...	...	...	...	...	...
	Hillston	2	0 2 39¼	4 7 6	...	...	...	...	...	...
Maitland	Dungog .....	...	...	...	2	2 1 0	5 12 6	...	...	...
	Muswellbrook	1	0 2 0	1 0 0	...	...	...	...	...	...
	Newcastle	1	0 2 0	1 5 0	...	...	...	1	0 1 27	33 10 0
	Scone	4	2 0 0	4 19 6	...	...	...	...	...	...
Moree	Moree	24	11 2 15	76 0 0	...	...	...	...	...	...
	Warialda	2	0 3 9	5 15 0	1	1 0 9	3 15 0	...	...	...
Orange	Bathurst	1	0 0 17¾	0 19 6	1	0 3 39	3 5 0	...	...	...
	Carcoar	1	0 1 0	0 17 6	...	...	...	...	...	...
	Cowra	3	0 3 28½	6 0 6	1	7 1 20	16 12 6	...	...	...
	Lithgow	1	1 0 0	10 0 0	...	...	...	...	...	...
	Molong .....	...	...	...	2	6 0 5	5 12 6	3	1 3 35½	4 15 0
	Rylstone	3	0 3 11¼	5 17 6	...	...	...	...	...	...
	Wellington	4	0 3 24¼	2 15 0	...	...	...	...	...	...

* The sales annulled, but the annulling of which has been reversed, are not included in this Return.

SCHEDULE XXXV—continued.

Land Board District.	Land District.	Town.			Suburban.			Country.		
		No. of Lots.	Area.	Amount Forfeited.	No. of Lots.	Area.	Amount Forfeited.	No. of Lots.	Area.	Amount Forfeited.
Sydney	Campbelltown.....	2	a. r. p. 0 2 0	£ s. d. 2 0 0	...	.....	.....	...	.....	.....
	Parramatta.....	2	0 2 37	33 15 0	1	3 2 37	10 10 0	1	0 3 35	13 11 3
	Picton.....	...	.....	.....	...	.....	.....	2	26 1 39	24 10 0
Tamworth	Sydney.....	...	.....	.....	1	2 1 29	6 5 0	6	10 5 35	68 19 8
	Gunnedah.....	4	1 3 35	11 0 0	...	.....	.....	...	.....	.....
	Narrabri.....	8	3 1 17	13 2 5	...	.....	.....	1	0 1 0	1 0 0
Wagga Wagga ...	Tamworth.....	2	1 0 0	6 10 0	...	.....	.....	...	.....	.....
	Albury.....	5	1 1 0	6 5 0	...	.....	.....	...	.....	.....
	Cootamundra.....	2	0 3 13	2 10 0	...	.....	.....	1	1 0 0	10 15 11
	Gundagai.....	...	.....	.....	1	2 2 0	3 2 6	...	.....	.....
	Narrandera.....	6	3 0 0	12 2 6	...	.....	.....	...	.....	.....
Tumbarumba.....	1	0 2 0	5 0 0	...	.....	.....	...	.....	.....
Total		152	61 3 28½	505 18 0	35	108 2 12½	168 16 3	18	23½ 0 27½	307 18 2

Grand Total—Town, Suburban, and Country :—205 lots, 40½ ac. 2 rd. 28½ pr. ; amount, £982 12s. 5d.

SCHEDULE XXXVI.

RETURN of Improvement Purchase Applications under Section 2 of the Crown Lands Act Amendment Act of 1875, and section 46 of the Crown Lands Act of 1884.

Land Board District and Land District.	Applications Received prior to the Year 1897.			Applications Received during the Year 1897.				Land Alienated during the Year.								
	Number Refused.	Number Approved.	Number declared Lapsed.	Number Received.	Number Refused.	Number Lapsed.	Number Approved.	Town.			Suburban.			Country.		
								Lots.	Area.	Amount realised exclusive of Fines.	Lots.	Area.	Amount realised exclusive of Fines.	Lots.	Area.	Amount realised exclusive of Fines.
Armidale—									a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	£ s. d.
Armidale	1	4	1	23	5	...	13	12	2 3 15½	233 10 0	...	.....	.....	...	.....	.....
Tenterfield .....	...	...	...	...	...	...	...	...	.....	.....	1	1 0 0	2 10 0	...	.....	.....
Bourke—																
Cobar.....	2	3	1	14	4	...	7	3	0 2 35	21 8 0	5	3 3 14	27 0 0	1	50 0 0	62 10 0
Wilcannia	2	1	...	35	3	...	19	...	.....	.....	8	6 2 32½	102 0 0	...	.....	.....
Willyama	3	4	...	21	4	...	13	6	1 1 10	78 0 0	5	2 3 38½	55 0 0	...	.....	.....
Dubbo—																
Dubbo	1	4	2	4	...	...	2	2	0 2 0	35 0 0	2	1 0 20	37 10 0	...	.....	.....
Forbes—																
Barmedman ...	3	27	5	39	1	...	22	45	11 1 0	626 0 0	...	.....	.....	...	.....	.....
Condobolin ...	...	2	...	...	...	...	...	2	0 2 0	6 0 0	...	.....	.....	...	.....	.....
Grenfell .....	...	...	...	1	...	...	...	...	.....	.....	...	.....	.....	...	.....	.....
Parkes.....	1	2	...	12	2	...	7	4	1 0 0	135 10 0	1	1 0 0	8 0 0	...	.....	.....
Goulburn—																
Cooma .....	...	...	...	2	...	...	...	...	.....	.....	...	.....	.....	...	.....	.....
Moruya	1	...	...	...	...	...	...	...	.....	.....	...	.....	.....	...	.....	.....
Queanbeyan ...	...	1	...	6	...	...	...	...	.....	.....	1	0 0 27½	7 0 0	...	.....	.....
Grafton—																
Casino .....	...	3	...	9	...	...	8	5	1 0 14	41 15 0	...	.....	.....	...	.....	.....
Hay—																
Hillston.....	1	...	...	...	...	...	...	...	.....	.....	...	.....	.....	...	.....	.....
Maitland—																
Scone.....	...	...	...	3	...	...	...	...	.....	.....	...	.....	.....	...	.....	.....
Orange—																
Bathurst .....	...	1	...	...	...	...	...	...	.....	.....	1	1 0 0	5 0 0	...	.....	.....
Carcoar.....	...	...	1	4	1	...	...	...	.....	.....	...	.....	.....	...	.....	.....
Mudgee.....	4	2	...	...	...	...	...	...	.....	.....	2	1 1 0	7 10 0	...	.....	.....
Wellington ...	1	3	...	5	2	...	1	3	0 3 0	21 0 0	...	.....	.....	...	.....	.....
Tamworth—																
Tamworth.....	3	1	...	7	...	...	4	3	0 3 0	14 0 0	1	1 0 0	5 0 0	...	.....	.....
Wagga Wagga—																
Cootamundra...	...	1	...	4	...	...	...	...	.....	.....	1	1 0 0	8 0 0	...	.....	.....
Tumbarumba...	...	...	...	1	...	...	...	...	.....	.....	...	.....	.....	...	.....	.....
Tumut	1	...	...	1	...	...	...	...	.....	.....	...	.....	.....	...	.....	.....
Urana .....	...	1	...	1	...	...	1	0	1 0	4 0 0	...	.....	.....	...	.....	.....
Wagga Wagga	...	...	...	...	...	1	...	...	.....	.....	...	.....	.....	...	.....	.....
Totals	24	60	10	192	22	1	96	86	20 3 34½	1,216 3 0	28	21 0 13	264 10 0	1	50 0 0	62 10 0

SCHEDULE XXXVII.

RETURN of Applications received and Lands alienated during the year 1897 under Special Purchase Clauses of the Crown Land Acts of 1884 and 1889; also Applications to purchase unnecessary roads under the Public Roads Act of 1897.

Land Board District	Land District	Section 63, Act 1884			Section 64, Act 1884			Section 66, Act 1884			Section 67, Act 1884			Public Roads Act of 1897			Section 42 of Act 1889		Total amount received for each Land District	
		Applications received during the year	Applications completed during the year		Purchase Money, exclusive of Fines	Applications received during the year	Applications completed during the year		Purchase Money, exclusive of Fines	Applications received during the year	Applications completed during the year		Purchase Money, exclusive of Fines	Applications received during the year	Applications completed during the year		Purchase Money, exclusive of Fines	Cases completed during the year		
			No	Area			No	Area			No	Area			No	Area		No		Area	No	Area
Armidale	Armidale		a r p	£ s d		a r p	£ s d		a r p	£ s d	1	1 3 12	14 3 0	2		a r p	£ s d	5	36 0 12	14 3 0
	Glen Innes										1	32 3 28	46 5 0							46 5 0
	Inverell										2	319 2 24	578 18 7	2				4	24 3 0	578 18 7
Dubbo	Dubbo													1						
	Barnedman													1						8 3 9
	Condobolin										1	3 1 16	8 3 9	1				7	57 2 0	121 10 0
Forbes	Forbes										1	54 0 0	121 10 0	1				3	2 1 0	
	Grenfell										1			1						
	Parkes													1						45 14 8
	Bega				3	1	18 0 20	45 14 8	1					1				1	3 1 0	
	Boorowa													1				3	7 1 4	
	Braidwood													1				1	11 2 35	
	Cooma													1				1	2 3 0	
	Goulburn													1				2	3 2 20	
	Moruya													2				2	13 2 0	
	Moss Vale													2				2	6 0 0	
Goulburn	Queanbeyan													1				1	4 2 0	
	Yass																			23 17 9
	Young										1	2 1 16	23 17 9					4	9 0 0	
	Bellingen													1				3	13 0 30	
	Casino										1	4 1 4	82 0 0	1				7	10 1 0	82 0 0
Grafton	Grafton										2			1				2	7 1 0	
	Kempsey										1	2	12 1 32½	41 15 6	1	5 1 26	30 18 0	12	31 0 36	72 13 6
	Lismore										1	2	12 1 32½	41 15 6	1			9	17 1 0	
	Murwillumoh										6	9	371 2 34	823 18 6	1			3	240 1 24	823 18 6
Hay	Denihquin													1						
	Hay													1						
Maitland	Dungog													1						47 0 5
	Gosford	1									1	22 2 20	47 0 5					3	5 1 0	
	Muswellbrook													1						393 7 10
	Newcastle	1	2	0 0 23½	393 7 10									1						
	Raymond Terrace													1						47 8 5
Maitland	Singleton										1	26 2 30	47 8 5							
	Stroud																			1 2 0
	Taree																			2 3 0

SCHEDULE XXXVIII.

RETURN showing the number of applications to surrender land in exchange for other land under the provisions of the Crown Lands Acts, received during the year 1897 and previous years, and the number disposed of and outstanding on 31st December, 1897.

Division of Colony.	Local Land Board District.	Number of Applications outstanding on 31 Dec., 1896.	Number of Applications received during 1897.	Accepted by the Governor-in-Council during 1897.		Number of Applications refused or withdrawn during 1897.	Number of Applications outstanding on 31 Dec., 1897.
				No.	Area.		
Eastern	Armidale	46	11	2	a. r. p. 35,678 0 4	9	46
	Goulburn	16	11	3	1,123 0 0	5	19
	Grafton	5	1	1	180 0 0	.....	5
	Forbes	1	1	.....	.....	1	1
	Maitland	10	4	.....	.....	2	12
	Orange	4	9	.....	.....	2	11
	Sydney	1	2	.....	.....	1	2
	Tamworth	8	4	.....	.....	2	10
	Wagga Wagga	16	7	1	1,754 2 10	4	18
	Dubbo	29	22	4	16,181 0 0	9	38
Central	Forbes	34	22	9	34,120 1 33	12	35
	Hay	25	19	9	56,440 0 39	4	31
	Moree	28	22	6	21,750 1 33	2	42
	Tamworth	29	14	3	2,966 2 0	1	39
	Wagga Wagga	41	29	17	73,536 1 30	10	43
	Bourke	13	2	6	23,374 3 10	1	8
Western	Hay	8	1	1	5,660 2 0	2	6
	Moree	1	.....	1	39,692 2 0	.....	.....
		315	181	63	312,408 1 39	67	366

SCHEDULE XXXIX.

RETURN showing the number, area, and nature of Deeds of Grant issued during the year 1897.

No. of Deeds of Grant.	Area.	Nature of Grant.
778	a. r. p. 15,740 2 6½	Sale by Auction, under clause 61 of the Crown Lands Act of 1884.
23	154 2 39	Do do Act 38 Vic. No. 3.
9	2 1 7¾	Do do clause 5 of Act 53 Vic No. 1.
1	0 0 11¾	Purchases in virtue of Improvements under clause 8 of the Crown Lands Alienation Act of 1861.
3	124 1 12	Do do do 2 do Acts Amendment Act of 1875.
1	300 0 0	Do do do 31 do do 1875.
97	36 1 26½	Do do do 46 of the Crown Lands Act of 1884.
22	5 1 3	Do do do 2 of the Act 53 Vic. No. 1.
529	88,032 2 1	Conditional Purchases under clauses 13, 14, 19, 21, and 22 of the Crown Lands Alienation Act of 1861.
97	19,905 3 25	Do do do 24, 26, 42, and 47 of the Crown Lands Act of 1884.
1	480 0 0	Do do do 42 of the Crown Lands Act of 1884, and clause 18 of the Crown Lands Act of 1889.
1	838 0 0	Conditional Purchases under clause 42 of the Crown Lands Act of 1884, and clause 25 of the Crown Lands Act of 1889.
3	300 2 20	Conditional Purchases under clause 13 of the Crown Lands Alienation Act of 1861, and clause 34 of the Crown Lands Act of 1895.
1	40 0 0	Conditional Purchases under clause 47 of the Crown Lands Act of 1884, and clause 34 of the Crown Lands Act of 1895.
1	44 0 0	Purchases under clause 25 of the Crown Lands Alienation Act of 1861.
230	767 1 7¼	Do do do 56 do Act of 1895.
76	629 3 11½	Do do do 63, 64, 66, and 67 of the Crown Lands Act of 1884, and clause 54 of the Crown Lands Act of 1895.
39	1,406 1 37	Alienations under clause 42 of the Crown Lands Act of 1889.
91	92,415 3 5	Do do do 46 do do Part I.
24	4,046 3 37	Do do do 46 do do Part II.
51	35,892 3 20	Do do do 47 do do 1895.
4	200 0 0	Volunteer Land Order Grants.
10	5 1 7	Dedications.
1	80 0 0	Courts of Claims Case.
6	942 0 20	Miscellaneous—Re-grants after amended survey.
2,099	262,391 1 16½	

SCHEDULE XL.

RETURN showing the number, area, and rental of Pastoral Leases and Occupation Licenses current during 1897.

Pastoral Leases.				Occupation Licenses.			
Number of Leases.	Division of Colony.	Area.	Annual Rental.	Number of Licenses.	Division of Colony.	Area.	Annual License Fee.
436 308	Central	Acres. 12,623,807	£ s. d. 135,548 7 5	432 305 541 239 196	Eastern	Acres. 5,206,420	£ s. d. 11,422 10 3
	Western	40,094,733	136,355 3 10		Eastern (Preferential) ..	3,535,612	16,052 3 3
744					Central	5,140,851	27,784 10 5
					Central (Preferential)...	3,534,796	23,499 6 0
					Western	19,542,767	21,770 19 5
		52,718,545	271,903 11 3			36,960,446	100,529 9 4

SCHEDULE XLI.

RETURN showing particulars as to Refunds granted during the year 1897 on account of land withdrawn from Pastoral Lease and Occupation License.

Pastoral Leases.				Occupation Licenses.			
Division.	Number of Pastoral Leases.	Area withdrawn.	Amount of refund granted.	Division.	Number of Occupation Licenses.	Area withdrawn.	Amount of refund granted.
		Acres.	£ s. d.			Acres.	£ s. d.
Central	60	312,796	1,771 9 7	Central	161	849,962	3,049 14 8
Western	29	72,403	389 3 2	Central (Preferential)..	106	844,595	5,799 19 1
				Eastern.....	52	53,126	222 0 1
				Eastern (Preferential)..	62	41,523	459 19 7
				Western	36	378,430	371 11 7
Totals	89	385,199	2,160 12 9	Totals	417	2,167,636	9,903 5 0

Grand Totals.

Cases	506
Area withdrawn	2,552,835 acres.
Amount refunded	£12,063 17s. 9d.

SCHEDULE XLII.

RETURN showing the number of transfers of Pastoral Leases, Preferential Occupation Licenses, and Occupation Licenses completed during the year 1897.

Division.	Pastoral Leases.	Preferential Occupation Licenses.	Occupation Licenses.
Eastern .....	.....	23	22
Central	40	14	45
Western	35	.....	14
Totals.....	75	37	81

SCHEDULE XLIII.

RETURN giving particulars of Applications dealt with during 1897, under Section 8 of the Crown Lands Act of 1895, for the attachment of Resumed Areas to Leasehold Areas.

No. and Name of Resumed Area.	Area to be attached to Leasehold Area.	No. and Name of Resumed Area.	Area to be attached to Leasehold Area.
RECEIVED DURING 1897.		Acres.	
20. Mount Gipps	309,457	211. Wiltagama	92,583
21. Cobham Lake	210,210	217. Menamurtee	214,796
58. Tolarno	344,612	220. Olive Downs	45,700
81. Springfield.....	32,375	225. Berawinnia Downs	152,120
133. Rookery.....	30,980	227. Tintinology	68,072
135. Wonominta	148,500	262. Whittabranah	52,195
141. Sturts Meadow.....	114,260	Total	1,973,289
153. Booroondarra Downs	59,476	REFUSED OR WITHDRAWN.	
200. Nundoro	198,984	20. Mount Gipps.....	309,457
225. Berawinnia Downs	152,120	81. Springfield.....	32,375
232. Bedooba.....	59,320	103. Marra.....	120,552
Total	1,660,294	183. Wanga Mana	69,760
APPROVED.		223. Onepar	63,300
45. Mootwingee	39,520	181. Belford	48,900
54. Trida	137,050	196. Murtee	75,546
130. Burta	108,980	240. Dunlop	304,280
133. Rookery.....	30,980	Total	1,024,170
135. Wonominta	148,500	STILL OUTSTANDING FROM PREVIOUS YEARS.	
141. Sturts Meadow.....	114,260	89. Weinteriga	314,365
142. Wangaron.....	16,100	264. Coolabah	13,079
157. Garnpung	100,160	251. Mulga No. 1	13,258
158. Central Block C.	29,960	259. Warratta	81,881
173. Poolamacca	177,300	Total	372,583
175. Torrens Creek	33,700		
200. Nundoro	198,984		
207. Thurloo Downs.....	207,499		
210. Coronga Peak	4,881		

SCHEDULE XLIV.

RETURN of Occupation Licenses offered for sale by Auction or Tender, showing the number and area offered; the number of times offered; and the number and area sold during the year 1897.

By Auction.						By Tender.							
Division.	No of times offered during 1897.		Total No. offered.	Area offered.	No. sold.	Area sold.	Division.	No. of times offered during 1897.		Total No. offered.	Area offered.	No. sold.	Area sold.
	1	2						1	2				
Eastern	56	11	67	acres. 726,284	20	acres. 253,730	Eastern	53	16	59	acres. 582,910	30	acres. 352,290
Do (Pref.) ...	7	...	7	77,070	...	...	Do pref.	4	...	4	45,100	2	17,100
Western	18	...	18	173,520	11	117,980							
Do (Pref.) ...	1	...	1	122,580	1	122,580							
Total.....	82	11	93	1,099,454	32	494,290	Total.....	57	16	63	628,010	32	369,390

Grand Totals.

Total number offered 156; area 1,727,464 acres.
 ,, ,, sold 64; area 863,680 acres.

SCHEDULE XLV.

RETURN showing particulars of Pastoral Leases and Occupation Licenses in the Western Division reappraised under section 9 of the Crown Lands Act of 1895.

Pastoral Leases.					Occupation Licenses.				
Land Board District.	No. of Leases.	Area.	Rental according to Original Rate.	Rental according to New Rate.	Land Board District.	No of Licenses.	Area.	Rental according to Original Rate.	Rental according to New Rate.
Bourke	200	acres. 26,721,252	£ s. d. 129,615 11 11	£ s. d. 88,723 4 11	Bourke	117	acres. 14,197,523	£ s. d. 30,345 4 11	£ s. d. 14,040 15 1
Hay	50	7,059,304	16,081 11 7	20,606 3 2	Hay	19	3,022,182	3,652 15 10	1,937 17 0
Moree	13	969,399	9,937 6 5	9,788 3 1	Moree	8	114,976	450 6 5	418 12 9
	263	34,749,955	165,584 9 11	118,137 11 2		144	17,334,681	34,448 7 2	16,497 4 10
Average rate per acre			1 ¹¹ / ₁₀₀ pence	£ ⁸ / ₁₀₀ pence	Average rate per acre			£ ⁸ / ₁₀₀ pence	£ ²³ / ₁₀₀ pence

SCHEDULE XLVI.

RETURN giving particulars of fresh Appraisements of License Fees determined under the 81st section of the Crown Lands Act of 1884, and gazetted during 1897.

Division of Colony.	Resumed Area.		Previous rate per section.	Rate per section, as determined after appraisalment.	Area.	
	No.	Name.				
Eastern	81	Inverell and Elsmore	£ s. d. 2 0 0	£ s. d. 2 5 0	acres. 25,258	Fresh appraisements, 9; area, 109,039 acres; annual rent, £454 19s. 5d.
	89	Mingoola	3 0 0	2 13 4	17,922	
	97	Kulki	3 0 0	1 10 0	1,546	
	143	Wambrook & Island Lake	5 6 8	4 0 0	2,980	
	278	New Koreelah	2 10 0	2 8 0	28,905	
	279	Arthur's Seat	3 0 0	2 0 0	9,617	
	280	Auburn Vale	2 15 0	2 10 0	16,946	
	465	Jugiong	18 0 0	18 0 0	797	
	549	Ben Lomond	6 0 0	5 6 8	5,068	
Total					109,039	
Eastern (Preferential)	89A	Mingoola	4 5 4	3 6 8	17,690	Fresh appraisements, 10; area, 123,471 acres; annual rent, £569 6s. 8d.
	97A	Kulki	4 0 0	3 6 8	2,124	
	124A	Brymedura	3 6 8	2 2 8	21,835	
	143A	Wambrook & Island Lake	4 0 0	3 0 0	2,288	
	183A	Belubula	16 0 0	13 6 8	282	
	278A	New Koreelah	4 0 0	2 15 0	30,153	
	280A	Auburn Vale	4 13 4	2 10 0	23,871	
	378A	Ganoo	9 6 8	2 0 0	2,799	
	395A	Retreat	4 13 4	3 6 8	20,334	
465A	Jugiong.....	12 0 0	12 0 0	2,095		
Total					123,471	
Central	54	West Mandemah	4 10 0	1 0 0	8,037	Fresh appraisements, 5; area, 166,156 acres; annual rent, £348 14s. 10d.
	184	Boronga	6 0 0	2 0 0	46,500	
	185	Bomera	2 13 4	0 13 4	61,541	
	314	Calimo	10 17 0	5 6 8	4,538	
	646	Bengalla	2 16 6	1 5 0	45,540	
Total					166,156	
Central (Preferential)	296A	Yagaba	4 0 0	1 0 0	12,988	Rent, £20 5s. 11d.
Western	160	Urisino		0 10 0	288,260	Rent, £225 4s. 1d.

SCHEDULE XLVII.

RETURN showing Pastoral Leases forfeited, &c., during 1897, also Preferential Occupation Licences not renewed for that year.

Pastoral Leases.		Preferential Occupation Licences.		Occupation Licences.	
Central Division	1	Eastern Division	11	Eastern Division	15
	—	Central "	14	Central "	18
			—	Western "	2
Total	1	Total	25	Total	35

SCHEDULE XLVIII.

RETURN showing Pastoral Leases in the Central Division extended under the provisions of the 43rd section of the Crown Lands Act of 1889, which will expire during 1898.

No.	Name of Pastoral Lease.	Date of Expiration of Lease.	Term of Extension.	No.	Name of Pastoral Lease.	Date of Expiration of Lease.	Term of Extension.
39	Puckawidgee	10 Jan., 1898	2 years 6 months.	317	Welbon	10 Jan., 1898	2 years 6 months.
44	Gorian	10 July, "	3 years.	347	Burrabogie	10 July, "	3 years.
51	Coradgery	10 Oct., "	3 " 3 months.	388	Buckingbong	10 " "	3 "
62	Yarringery	10 July, "	3 years.	400	Old Harbour	10 " "	3 "
70	North Malonga	10 " "	3 "	409	Hartwood	10 Jan., "	2 " 6 months.
108	Nyang	10 " "	3 "	414	Tulloona	10 July, "	3 years.
130	Flagstone Creek	10 " "	3 "	469	Albert Waterhole	10 Nov., "	3 " 4 months.
131	Moroco	10 " "	3 "	490	The Meadows	10 July, "	3 years.
132	Egan Creek	10 " "	3 "	532	Moredevil	10 " "	3 "
136	Upper Merry Merry	10 Jan., "	2 " 6 months.	563	Edgeroi	30 April, "	2 " 9 months.
141	Bogewong	10 " "	2 " 6 "	577	Grubben Plains	30 July, "	3 years.
165	Cocketgedong	10 July, "	3 years.	622	Grong Grong	30 Jan., "	2 " 6 months.
167	Tala	10 " "	3 "	625	Eenaweena	30 " "	2 " 6 "
176	Pomingalarna	10 Jan., "	2 " 6 months.	651	Barham	4 Feb., "	2 " 6 "
200	Widgiwa	10 " "	2 " 6 "	658	Pullitop	4 " "	2 " 6 "
201	Caidmurra	10 July, "	3 years.	659	Howlong	4 Aug., "	3 years.
214	Bando	10 " "	3 "	662	North Junee	4 Feb., "	2 " 6 months.
228	Gelam	10 " "	3 "	667	Merool Baale Creek	4 Aug., "	3 years.
231	Singoramba Block A.	10 " "	3 "	672	Cobran	4 Feb., "	2 " 6 months.
235	Beremegad	10 Jan., "	2 " 6 months.	676	Bumbaldry (Upper)	4 Aug., "	3 years.
243	Coolatai	10 July, "	3 years.	694	Bald Hills & Warraderry	4 Feb., "	2 " 6 months.
249	Spring Creek	10 " "	3 "	695	Wanganella	4 " "	2 " 6 "
263	Momalong	10 " "	3 "	744	Wheogo	10 Sept., "	3 " 2 "
279	Merrybone	10 " "	3 "	745	Bogo Bogolong	10 Nov., "	3 " 4 "
289	Wentworth Gully	10 April, "	2 " 9 months.	751	Bomera	10 Jan., "	2 " 6 "
303	Mourabie	10 July, "	3 years.				

SCHEDULE XLIX.

RETURN showing Pastoral Leases in the Central Division extended under the provisions of the 43rd section of the Crown Lands Act of 1889, which expired during the year 1897.

No.	Name of Pastoral Lease.	Area (approximate).	Date of Expiration of Lease.	Remarks.
		Aeres.		
3	Wagingoberemby	5,964	10 Jan., 1897 ...	Preferential Occupation License applied for.
12	Kunopia	49,001	10 July, " ...	do do
30	Oregon	15,572	10 April, " ...	do do
50	Gundare	15,251	10 July, " ...	do do
66	Blue Nobby	20,431	10 " " ...	do do
84	Brogan Plains	8,024	10 Nov., " ...	do do
95	Garrawilla	34,269	10 July, " ...	do do
98	Buddabadah	4,513	10 " " ...	do do
106	Bugilbone	61,780	10 " " ...	do do
154	Colombo Creek	3,354	10 " " ...	do do
172	Drildool	52,848	10 Jan., " ...	do do
186	Booloroo	18,037	10 July, " ...	do do
197	Werrina	79,600	10 April, " ...	do do
238	North Goonambil	7,202	10 July, " ...	do do
248	Weemabah	7,234	10 " " ...	do do
251	Oreel	44,846	10 Jan., " ...	do do
271	Gennaren	4,900	10 " " ...	No Preferential Occupation License applied for.
293	Coolah	16,970	10 May, " ...	Preferential Occupation License applied for.
294	Murgah	7,270	10 July, " ...	do do
305	Bunarba	27,801	10 April, " ...	do do
315	Wardry	13,527	10 July, " ...	do do
329	Brewarrina	9,526	10 Jan., " ...	do do
339	Gogeldrie	9,300	10 July, " ...	do do
346	O'Brien's Creek	11,863	10 " " ...	No Preferential Occupation License applied for.
423	Cumbooglecumbong	25,732	10 " " ...	Preferential Occupation License applied for.
458	Midkin	142,294	10 " " ...	do do
516	Mungiebundie	15,326	10 Oct., " ...	do do
517	Lower Mithul Creek	1,920	10 July, " ...	do do
520	Hermitage Plains Block M.	14,398	10 " " ...	do do
527	The Springs	12,898	10 " " ...	do do
562	Whalan	51,202	30 " " ...	do do
569	Trinkey	29,055	30 " " ...	do do
589	Merriwa	14,641	30 Jan., " ...	do do
679	Trigamon	46,596	4 May, " ...	No Preferential Occupation License applied for.
681	Gragin and Graman	43,564	4 Feb., " ...	Preferential Occupation License applied for.
714	Eurombedah	54,367	7 Sept., " ...	do do
724	Borambola	9,388	13 April, " ...	do do
752	Tarawinda	52,355	10 July, " ...	do do

SCHEDULE L.

RETURN showing the area gazetted as withdrawn from Pastoral Leases under Sections 3 and 6 of the Crown Lands Act of 1895 during the year 1897.

No.	Name of Pastoral Lease.	Area.	Date of Gazettal of withdrawal.	No.	Name of Pastoral Lease.	Area.	Date of Gazettal of withdrawal.				
CENTRAL DIVISION.—Section 3.											
54	West Mandamah	9,500	3 April, 1897	572	Egelabra	7,600	3 July, 1897				
69	Spicer's Creek	11,000	2 Oct., 1897	576	Timberrybungan	18,174	7 Aug., 1897				
74	Boyd	6,500	10 July, 1897	591	Towyal	8,100	15 May, 1897				
92	Gillendoon	11,900	10 July, 1897	594	Burroway	28,325.	12 June, 1897				
107	Welbendungah	20,100	6 Nov., 1897	597	Bygaloree	30,536	20 Feb., 1897				
127	Bulgandramine	44,600	24 July, 1887	627	Ariah	9,100	10 July, 1897				
148	Gunningbland	18,000	20 Jan., 1897	631	Euroka	31,000	23 Oct., 1897				
150	Ellengersh	13,100	3 July, 1897	634	Kooba	12,500	8 Dec., 1897				
218	The Troffs	32,000	7 Aug., 1897	648	Condobolin	20,000	12 June, 1897				
295	Ulumbarella	11,000	10 April, 1897	681	Mullah	19,000	12 June, 1897				
307	Goobang	15,400	28 April, 1897	WESTERN DIVISION. Section 6.							
326	Gunningbar	19,000	7 Aug., 1897								
383	Narromine	34,500	5 June, 1897								
398	Bartley's Creek	3,600	20 Mar., 1897								
465	Deniliquin	5,200	24 April, 1897								
478	Derribong	34,200	6 Feb., 1897								
488	Brue Plains	8,932	2 Oct., 1897								
498	Barrawang	32,000	6 Nov., 1897								
								514,867			
								17,000	24 July, 1897		
						15,700	13 Feb., 1897				
						32,700					

CENTRAL DIVISION.

Cases in which intention to withdraw land from Pastoral Lease was notified during the year 1897.

No.	Leasehold Area.	Land Board District.	No.	Leasehold Area.	Land Board District.
96	Ganmain	Wagga Wagga	599	Wonbobbie	Dubbo
233	Berembed	"	620	Tubbo	Wagga Wagga
354	North Wakool	Hay	683	Mahonga	"
387	Pallal	Moree	728	Gonn	Hay
394	Bodangora	Dubbo	729	Noorong	"
502	Mimosa	Forbes and Wagga Wagga			

SCHEDULE LI.

RETURN showing Appraisements under section 4 of the Crown Lands Act of 1895 of Preferential Occupation Licenses of late Leasehold Areas gazetted in 1897.

CENTRAL DIVISION.

No.	Name.	Area.	Rental.	No.	Name.	Area.	Rental.
6A	Gurley	56,227	468 11 2	420A	Cowl Cowl	157,265	131 1 0
47A	Ballaree	12,800	160 0 0		Rent for forfeited improvements		10 0 0
90A	Wargam	13,849	150 0 8	447A	Nevertire	43,822	390 3 8
100A	Esperance	5,630	70 7 6	567A	Carbucky	45,640	641 16 3
143A	Rack Esperance	8,100	101 5 0	601A	Mundawaddera	3,589	322 1 9
239A	Boyong	2,529	23 14 3	619A	Moira	24,137	325 17 2
241A	Sandy Creek and Wagga Wagga	8,909	334 1 9		Plus rent for forfeited improvements		50 0 0
308A	Coppymurrumbil	48,517	404 6 2	700A	Willie	58,909	552 5 5
343A	Perricoota	20,450	383 8 9				

SCHEDULE LII.

RETURN showing the Number and Area embraced in Applications for Homestead Leases made in 1897, and the action thereon.

Land Board District.	Land District.	No. of Applications received and the area embraced by such Applications.		Deposits lodged with Applications for Homestead Leases.	Survey Fee lodged with Applications for Homestead Leases.	1897 Applications.		
		No.	Area in acres.			No. granted.	No. refused.	No. outstanding.
Bourke	Bourke	9	48,015	191 1 3	90 0 0	1	2	6
	Brewarrina	2	15,240	63 10 0	20 0 0			2
	Cobar	3	23,531	98 0 0	30 0 0	2	1	
	Wilcannia	17	111,764	465 13 8	170 0 0	9	1	7
Hay	Hay, North							
	Balranald	13	98,300	409 11 8	130 0 0	2	4	7
	Hillston, North	8	47,463	197 15 3	80 0 0		2	6
Moree	Wentworth	18	113,212	474 16 10	180 0 0		6	12
	Walgett, North	8	37,155	154 16 3	80 0 0	2	4	2
		78	494,680	2,055 4 11	780 0 0	16	20	42

SCHEDULE LIII.

RETURN showing the Number and Area of Applications for Homestead Leases granted, refused, and permitted to be withdrawn during 1897, and also number outstanding at the end of that year.

Land Board District.	Land District.	No. granted.	Area.	Annual Rental.	Number refused and permitted to be withdrawn.	Number outstanding at the end of 1897.
			acres.	£ s. d.		
Bourke	Bourke	11	101,823	404 9 7	4	6
	Brewarrina.....	1	2,694	32 2 1	.....	.....
	Cobar	1	3,090	11 1 6	.....	2
	Wilcannia	9	70,455	253 18 11	3	1
	Willyama	15	93,637	227 9 1	4	7
Hay	Hay, North.....	.....	.....	.....	.....	.....
	Balranald	7	43,840	91 14 8	5	9
	Hillston, North.....	.....	.....	.....	4	6
	Wentworth	13	77,449	124 15 5	8	27
Moree	Walgett, North	4	17,852	101 7 8	7	2
		61	419,840	1,246 18 11	35	60

SCHEDULE LIV.

RETURN showing the Number, Area, and Rent of Homestead Leases forfeited during 1897.

Land Board District.	Land District.	Forfeited.		
		No. of Leases.	Area embraced in such Leases.	Annual Rental.
			acres.	£ s. d.
Bourke	Bourke	12	94,012	404 16 4
	Brewarrina	1	5,831	30 12 4
	Cobar	4	40,952	188 2 4
	Wilcannia	17	95,508	338 11 0
	Willyama	4	13,779	38 15 1
Hay	Balranald	4	40,960	164 5 4
	Hillston, North	1	2,560	9 12 0
	Wentworth	1	7,988	9 19 9
Moree	Walgett, North	1	10,240	85 6 8
		45	311,830	1,270 0 10

SCHEDULE LV.

RETURN showing particulars of Homestead Leases reappraised under Section 9 of the Crown Lands Act of 1895.

Land Board District.	No. of Applications.	No. of Leases.	Area.	Rental according to Original rate.	Rental according to New rate.
			acres.	£ s. d.	£ s. d.
Bourke.....	528	517	4,841,371	33,839 7 10	24,568 6 8
Hay	142	142	1,284,545	9,189 9 2	6,967 12 9
Moree	60	53	486,161	4,229 15 8	3,786 14 9
Total	730	712*	6,612,077	47,258 12 8	35,322 14 2
				1 ¹¹ / ₁₀₀ d.	1 ⁸ / ₁₀₀ d.

* Applications withdrawn : Bourke, 10 ; Hay, 1 ; Moree, 7.

SCHEDULE LVI.

RETURN showing the Number, Area, and Rent of Homestead Leases in existence at the end of 1897.

Land Board District.	Land District.	No. of Leases.	Area embraced in such Leases.	Rent determined.
			acres.	£ s. d.
Bourke	Bourke	359	3,275,007	14,814 17 9
	Brewarrina.....	151	1,373,079	11,896 0 8
	Cobar	50	427,524	1,763 1 6
	Wilcannia	104	846,935	3,728 0 1
	Willyama	126	803,520	2,400 11 7
Hay	Balranald	94	758,971	3,651 1 8
	Hay, North.....	61	570,406	3,875 7 3
	Hillston, North	82	629,041	2,963 1 2
	Wentworth.....	93	666,456	2,561 5 6
Moree	Walgett, North	123	1,030,385	8,524 12 6
		1,243	10,381,324	56,177 19 8

SCHEDULE LVII.

RETURN giving particulars with reference to Applications received for Settlement Leases during 1897.

Land Board District and Land District.	Farms applied for during 1897.			Applications confirmed during 1897.			Applications disallowed, withdrawn, &c., during 1897.		No. of Applications outstanding at close of year.
	No.	Area.	Annual Rent.	No.	Area.	Annual Rent.	No.	Area.	
Armidale—		a. r. p.	£ s. d.		a. r. p.	£ s. d.		a. r. p.	
Armidale	1	2,050 0 0	25 12 6	1	2,050 0 0	25 12 6	...	.....	...
Inverell	3	16,669 0 0	133 10 5	1	4,921 0 0	52 5 8	...	.....	2
Walcha	1	2,630 0 0	28 15 4	...	.....	.....	...	.....	1
Total	5	21,349 0 0	187 18 3	2	6,971 0 0	77 18 2	...	.....	3
Bourke—									
Bourke	3	29,344 0 0	113 14 0	1	8,864 0 0	36 18 8	2	20,480 0 0	...
Brewarrina East	16	39,451 0 0	493 12 9	4	11,057 0 0	138 14 3	...	.....	15
Wilcannia	1	3,480 0 0	14 10 0	1	3,480 0 0	14 10 0	...	.....	...
Total	20	72,275 0 0	621 16 9	6	23,401 0 0	190 2 11	2	20,480 0 0	15
Dubbo—									
Coonamble	15	46,290 2 0	523 11 5	10	25,052 2 0	321 1 6	8	24,324 2 0	7
Dubbo	62	151,486 0 0	2,260 3 1	29	67,509 0 0	1,049 19 0	24	64,828 0 0	9
Nyngan	5	12,397 0 0	168 19 3	2	2,560 0 0	32 0 0	...	.....	4
Warren	51	132,137 0 0	1,895 18 3	24	58,045 2 0	819 18 6	25	72,106 2 0	11
Total	133	342,310 2 0	4,848 12 0	64	153,167 0 0	2,222 19 0	57	161,259 0 0	31
Forbes—									
Barmedman	14	24,596 0 0	235 1 5	13	22,388 0 0	221 15 5	...	.....	1
Condobolin	4	11,131 2 0	122 1 0	6	20,833 0 0	188 18 5	4	8,942 2 0	...
Forbes	4	6,294 0 0	73 2 5	2	2,560 0 0	26 13 4	1	1,280 0 0	2
Grenfell .....	...	.....	.....	4	10,608 0 0	98 0 3	...	.....	...
Parkes	10	33,516 0 0	299 11 3	10	33,516 0 0	299 11 3	5	15,954 0 0	...
Total	32	75,537 2 0	729 16 1	35	89,905 0 0	834 18 8	10	26,176 2 0	3
Goulburn—									
Boorowa	1	2,355 0 0	7 7 2	1	2,355 0 0	7 7 2	...	.....	...
Yass	1	220 0 0	1 0 0	...	.....	.....	...	.....	1
Total	2	2,575 0 0	8 7 2	1	2,355 0 0	7 7 2	...	.....	1
Hay—									
Balranald South	3	4,631 1 0	69 3 1	...	.....	.....	...	.....	3
Hay	6	18,456 0 0	207 4 11	4	11,124 1 0	131 7 4	2	7,331 3 0	...
Hillston	2	4,748 0 0	37 1 10	1	2,374 0 0	18 11 10	1	2,374 0 0	...
Total	11	27,835 0 0	313 9 10	5	13,498 1 0	149 19 2	3	9,705 3 0	3
Moree—									
Bingara	3	16,000 0 0	86 16 0	2	9,600 0 0	54 16 0	1	6,400 0 0	1
Moree	44	134,107 0 0	1,884 0 7	32	100,742 0 0	1,447 17 0	27	77,246 3 0	6
Walgett	9	26,026 0 0	399 19 8	13	35,971 2 0	532 6 0	5	12,943 0 0	1
Warialda	12	33,234 0 0	462 6 5	13	34,428 2 0	432 16 8	3	9,362 0 0	1
Total	68	209,367 0 0	2,833 2 8	60	180,742 0 0	2,517 15 8	36	105,956 3 0	9
Orange—									
Mudgee	2	4,417 0 0	28 5 1	2	4,417 0 0	28 5 1	...	.....	...
Tamworth—									
Coonabarrabran	15	49,666 0 0	368 0 10	16	59,156 0 0	545 19 2	7	24,300 0 0	3
Gunnedah	8	17,878 0 0	196 17 0	7	16,912 0 0	184 15 6	...	.....	2
Narrabri	28	73,332 0 0	139 5 2	25	65,799 0 0	1,228 0 3	4	10,133 0 0	...
Total	51	140,876 0 0	704 3 0	48	141,867 0 0	1,958 14 11	11	34,433 0 0	5
Wagga Wagga—									
Narrandera	2	5,848 0 0	39 5 1	1	1,453 0 0	14 10 7	1	1,453 0 0	1
Urana .....	...	.....	.....	1	1,685 0 0	28 19 3	1	1,685 0 0	...
Total	2	5,848 0 0	39 5 1	2	3,138 0 0	43 9 10	2	3,138 0 0	1

SUMMARY.

Armidale	5	21,349 0 0	187 18 3	2	6,971 0 0	77 18 2	...	.....	3
Bourke	20	72,275 0 0	621 16 9	6	23,401 0 0	190 2 11	2	20,480 0 0	15
Dubbo	133	342,310 2 0	4,848 12 0	64	153,167 0 0	2,222 19 0	57	161,259 0 0	31
Forbes	32	75,537 2 0	729 16 1	35	89,905 0 0	834 18 8	10	26,176 2 0	3
Goulburn	2	2,575 0 0	8 7 2	1	2,355 0 0	7 7 2	...	.....	1
Hay	11	27,835 0 0	313 9 10	5	13,498 1 0	149 19 2	3	9,705 3 0	3
Moree	68	209,367 0 0	2,833 2 8	60	180,742 0 0	2,517 15 8	36	105,956 3 0	9
Orange	2	4,417 0 0	28 5 1	2	4,417 0 0	28 5 1	...	.....	...
Tamworth	51	140,876 0 0	704 3 0	48	141,867 0 0	1,958 14 11	11	34,433 0 0	5
Wagga Wagga	2	5,848 0 0	39 5 1	2	3,138 0 0	43 9 10	2	3,138 0 0	1
Grand Total	326	902,390 0 0	10,314 15 11	225	619,461 1 0	8,031 10 7	121	361,149 0 0	71

SCHEDULE LVIII.

RETURN showing Number, Area, and Rent of Settlement Leases issued up to 31st December, 1897.

Land Board District and Land District.	No. of Leases.	Area.	Annual Rent.	Land Board District and Land District.	No. of Leases.	Area.	Annual Rent.
Armidale—		acres.	£ s. d.	Hay—		acres.	£ s. d.
Armidale	2	7,550	71 9 2	Deniliquin	3	4,037½	79 10 3
Bourke—				Hay	11	37,912	534 15 6
Bourke	2	19,104	79 12 0	Hillston	2	4,857	30 10 7
Brewarrina.....	2	6,071	75 17 9	Moree—			
Brewarrina, East	13	53,310	633 4 9	Bingara	6	14,948	159 11 9
Cobar	3	10,760	57 1 11	Moree	61	170,721	2,317 19 10
Wilcannia	1	3,480	14 10 0	Walgett	42	117,677½	1,632 6 2
Dubbo—				Warialda	19	49,200½	745 19 6
Coonamble	23	62,375½	848 13 5	Orange—			
Dubbo.....	19	42,503	653 12 11	Mudgee.....	2	4,417	28 5 1
Nyngan	16	45,684	378 15 0	Tamworth—			
Warren	35	88,700½	1,252 13 3	Coonabarrabran	24	86,909	819 1 8
Forbes—				Gunnedah	16	25,280½	361 0 10
Barmedman	18	42,620½	420 8 2	Murrurundi	1	640	24 0 0
Condobolin	29	93,107½	869 19 3	Narrabri	55	140,653½	1,433 8 1
Forbes	3	5,295½	53 11 8	Tamworth	3	3,436½	45 12 6
Grenfell	10	24,093½	245 16 10	Wagga Wagga—			
Goulburn—				Urana	5	6,508	108 19 0
Boorowa.....	1	2,355	7 7 2	Totals	427	1,174,207	13,988 14 0

SCHEDULE LIX.

RETURN showing Number, Area, and Rent of Settlement Leases declared null and void during the year ending 31st December, 1897.

Land Board District.	Land District.	No. of Leases.	Area.	Annual Rent.
Bourke	Brewarrina East.....	2	Acres. 4,308	£ s. d. 60 2 0
Hay	Hillston	1	2,374	22 5 2
Moree	Moree	1	2,552	31 18 0
Tamworth	Coonabarrabran	1	2,560	32 0 0
	Totals	5	12,294	146 5 2

RETURN showing Number, Area, and Rent of Settlement Leases declared forfeited during the year ending 31st December, 1897.

Land Board District.	Land District.	No. of Leases.	Area.	Annual Rent.
Bourke	Brewarrina East.....	2	Acres. 5,795	£ s. d. 72 8 9
Moree	Warialda	1	2,560	32 0 0
	Totals	3	8,355	104 8 9

SCHEDULE LX.

RETURN giving particulars as to notification and disposal of Settlement Lease Areas from 1st June, 1895, to 31st December, 1897.

Land Board District and Land District.	Total acreage in Settlement Lease Areas when notified.		Area notified but not yet available for Settlement Lease, or rendered unavailable since notification, by reservation or other cause.		Area available for Selection.	Area Selected.		Area Unselected on 31st December, 1897.	Capital Value represented by Land Selected.		Percentage of area selected to area available for Selection.	
	No. of Farms.	Area.	No. of Farms.	Area.		No. of Farms.	Area.		£	s.		d.
Armidale—		acres.		acres.	acres.		acres.	acres.				
Armidale	8	*32,214½	6	24,764½	7,450	2	7,450	.....	5,650	0	0	100
Inverell	4	20,928	...	.....	20,928	3	16,669	4,259	10,681	13	8	80
Walcha	8	39,020	...	.....	39,020	1	2,630	36,390	2,301	5	0	7
Total	20	92,162½	6	24,764½	67,398	6	26,749	40,649	18,632	18	8	40
Bourke—												
Bourke	10	†74,508	4	21,535	52,973	2	19,104	33,869	6,368	0	0	36
Brewarrina	5	29,162	2	15,133	14,024	3	14,024	.....	11,373	0	0	100
Brewarrina East	16	55,960	...	.....	55,960	16	55,960	.....	55,960	0	0	100
Cobar	15	92,299	4	19,190	73,109	3	10,770	62,339	4,567	0	10	15
Wilcannia	3	23,958	2	20,478	3,480	1	3,480	.....	1,160	0	0	100
Totals	49	275,887	12	76,341	199,546	25	103,338	96,208	79,428	0	10	52
Dubbo—												
Coonamble	42	130,069½	3	8,886½	121,183	31	86,134	35,049	84,638	2	6	71
Dubbo	96	†268,081	43	102,000	166,081	35	81,174	84,907	95,532	2	6	48
Nyngan	26	74,487	6	19,726	54,761	19	52,201	2,560	38,438	3	4	95
Warren	58	†140,113½	...	.....	93,470½	36	93,470½	.....	106,175	1	3	100
Totals	222	612,751½	74	177,255½	435,495½	121	312,979½	122,516	324,783	9	7	71
Forbes—												
Barmedman	39	100,471½	6	16,519	83,952½	22	43,859½	35,093	39,805	11	3	58
Condobolin	50	192,955½	4	31,937	161,018½	32	99,693	61,325½	84,342	3	9	62
Forbes	12	‡21,661½	6	11,352	10,309½	6	10,309½	.....	8,536	6	0	100
Grenfell	14	35,136	1	3,151	31,985	12	27,930½	4,054½	23,024	12	1	87
Parke	13	43,544	2	13,327	30,217	10	33,516	1,701	25,245	14	0	95
Totals	128	398,768½	19	76,286	322,482½	82	220,308	102,174½	180,954	7	1	80
Goulburn—												
Boorowa	2	5,229	...	.....	5,229	1	2,355	2,874	588	15	0	45
Braidwood	1	1,850	1	1,850	.....	...	.....	.....	.....	.....	.....	...
Eden	6	29,670	...	.....	29,670	...	.....	29,670	.....	.....	.....	...
Goulburn	12	17,988½	12	17,988½	.....	...	.....	.....	.....	.....	.....	...
Moss Vale	1	963	...	.....	963	...	.....	963	.....	.....	.....	...
Yass	8	5,011½	...	.....	5,011½	1	220	4,791½	79	15	0	4
Totals	30	60,712	13	19,838½	40,873½	2	2,575	38,298½	668	10	0	5
Hay—												
Balranald South	19	86,196½	...	.....	86,196½	1	1,030	85,166½	1,287	10	0	1
Deniliquin	4	5,625½	1	1,587½	4,037½	3	4,037½	.....	6,360	12	6	100
Hay	16	53,662½	3	7,876	45,786½	11	37,910	7,876½	42,781	17	6	82.9
Hillston	47	118,730½	21	53,042	65,688½	2	4,857	60,831½	1,442	2	6	7.3
Totals	86	264,214½	25	62,505½	201,708½	17	47,834½	153,874½	51,872	2	6	23
Maitland—												
Scone	3	7,660	...	.....	7,660	...	.....	7,660	.....	.....	.....	...
Wollombi	6	12,955½	...	.....	12,955½	...	.....	12,955½	.....	.....	.....	...
Totals	9	20,615½	...	.....	20,615½	...	.....	20,615½	.....	.....	.....	...
Moree—												
Bingara	8	27,788	...	.....	27,788	7	21,388	6,400	15,231	0	0	77
Moree	123	**382,530½	10	21,695½	360,835½	75	215,521½	145,314½	232,525	19	3	60
Walgett	47	136,122½	3	7,609	128,513½	42	123,315½	5,198½	130,582	12	4	96
Wyallda	32	**89,585½	6	18,880½	70,705½	23	60,749½	9,956	68,295	3	4	86
Totals	210	636,027	19	48,184½	587,842½	147	420,974	166,868½	446,634	14	11	84
Orange—												
Bathurst	2	1,785	...	.....	1,785	...	.....	1,785	.....	.....	.....	...
Carcoar	10	19,085	...	.....	19,085	...	.....	19,085	.....	.....	.....	...
Molong	1	985	...	.....	985	...	.....	985	.....	.....	.....	...
Mudgee	3	7,092	...	.....	7,092	2	4,417	2,675	2,260	1	6	62
Totals	16	28,947	...	.....	28,947	2	4,417	24,530	2,260	1	6	15
Sydney—												
Windsor	3	6,730	...	.....	6,730	...	.....	6,730	.....	.....	.....	...

* Of this area 24,764½ acres did not become available during 1897. † Of this area 11,295 acres did not become available during 1897. ‡ Of these areas 114,843 acres did not become available during 1897. § Of this area 6,233 acres did not become available during 1897. ¶ 17,988½ acres did not become available during 1897. ** Of these areas 14,453½ acres did not become available during 1897. †† 7,876 acres of this area did not become available during 1897.

SCHEDULE LX—continued.

Land Board District and Land District.	Total acreage in Settlement Lease Areas when notified.		Area notified but not yet available for Settlement Lease, or rendered unavailable since notification by reservation or other cause.		Area available for Selection.	Area Selected.		Area Unselected on 31st December, 1897.	Capital value represented by Land Selected.	Percentage of area selected to area available for selection.
	No. of Farms.	Area.	No. of Farms.	Area.		No. of Farms.	Area.			
Tamworth—		acres.		acres.	acres.	acres.	acres.	£ s. d.		
Coonabarrabran	62	205,487½	1	1,625	203,862½	33	112,422	91,440½	81,519 0 0	55
Gunnedah	41	110,383*	14	54,199	56,184	19	32,810	23,374	38,158 7 6	58
Murrurundi	2	1,944½	1	1,304½	640	1	640	.....	1,920 0 0	100
Narrabri	84	343,073½	5	9,779	333,294½	60	156,794½	176,500	213,121 19 2	47
Tamworth	17	40,851	4	8,718	32,133	3	3,436½	28,696½	3,649 16 8	10
Total	206	701,739½	25	75,625½	626,113½	116	306,103	320,010½	338,369 3 4	49
Wagga Wagga—										
Cootamundra Central ..	1	2,615½	...	.....	2,615½	...	.....	2,615½	.....	...
Narrandera	7	26,222	...	.....	26,222	3	12,393	13,829	6,085 8 0	47
Urana	8	11,640½	...	.....	11,640½	8	11,640½	.....	14,989 12 5	100
Wagga Wagga	1	421½	...	.....	421½	...	.....	421½	.....	...
Total	17	40,899½	...	.....	40,899½	11	24,033½	16,866	21,075 0 5	58
Grand Totals	996	3,139,454½	193	560,801½	2,578,652½	529	1,469,311½	1,109,341½	1,464,678 8 10	...

* Of this area 54,199 acres did not become available during 1897.

SCHEDULE LXI.

RETURN giving particulars of Improvement Leases sold by Auction and Let by Tender during the year 1897.

PART A.

Leases Sold by Auction.					Leases Let by Tender.				
Division and Land District.	No. of Leases.	Area.	Rental Realised.	Average Rate per Acre.	Division and Land District.	No. of Leases.	Area.	Rental Realised.	Average Rate per Acre.
Eastern—		acres.	£ s. d.	pence.	Eastern—		acres.	£ s. d.	pence.
Bathurst	3	4,650	62 2 6	3 ² / ₁₀₀	Bombala	1	1,900	12 0 0	1 ⁵ / ₁₀₀
Bombala	1	3,840	10 0 0	⁶ / ₁₀₀	Nowra	2	20,948	65 9 4	⁷ / ₁₀₀
Cooma.....	1	2,840	20 0 0	1 ⁹ / ₁₀₀	Tamworth	5	2,920	36 15 0	3 ² / ₁₀₀
Eden	6	17,610	21 6 11	² / ₁₀₀		8	25,768	114 4 4	1 ⁶ / ₁₀₀
Inverell	1	3,800	15 16 8	1	Central—				
Molong	1	3,440	15 5 0	1 ⁶ / ₁₀₀	Coonabarabran	3	35,280	50 0 0	³ / ₁₀₀
Singleton	2	350	4 10 0	3 ⁸ / ₁₀₀	Narrandera	1	5,140	4 16 5	² / ₁₀₀
Scone	2	680	7 10 0	2 ⁷ / ₁₀₀	Nyngan	3	50,150	78 7 3	³ / ₁₀₀
Tamworth	1	41	1 10 0	8 ⁷ / ₁₀₀		7	90,570	133 3 8	³ / ₁₀₀
	18	37,251	158 1 1	1 ⁹ / ₁₀₀	Western—				
Central—					Wentworth	1	20,480	16 0 0	¹ / ₁₀₀
Condobolin	6	35,766	21 4 4	¹ / ₁₀₀	Wilcannia	6	122,880	98 0 0	¹ / ₁₀₀
Hay.....	1	10,603½	8 16 9	³ / ₁₀₀	Willyama	10	204,800	61-13 4	⁵ / ₁₀₀
Hillston	3	29,480	24 16 11	² / ₁₀₀		17	348,160	175 13 4	¹ / ₁₀₀
Moree.....	1	4,100½	5 0 0	² / ₁₀₀	Total.....	32	464,498	423 1 4	²/₁₀₀
Narrandera	2	2,873	6 10 0	⁵ / ₁₀₀	GRAND TOTAL.....	113	1,345,318	2,130 14 0	³/₁₀₀
Narrabri.....	3	16,737	35 18 6	⁵ / ₁₀₀					
Nyngan	2	9,385	22 0 0	⁵ / ₁₀₀					
Parkes	1	1,000	4 3 4	⁵ / ₁₀₀					
Warialda	5	40,000	96 9 7	⁵ / ₁₀₀					
	24	149,944½	224 19 5	³ / ₁₀₀					
Western—									
Bourke	32	580,744	1,175 2 4	⁴ / ₁₀₀					
Brewarrina	1	11,731	36 13 3	² / ₁₀₀					
Cobar	1	19,200	4 15 0	⁵ / ₁₀₀					
Wentworth	4	69,800	67 1 7	² / ₁₀₀					
Willyama	1	12,150	41 0 0	⁴ / ₁₀₀					
	39	693,625	1,324 12 2	⁴ / ₁₀₀					
Total	81	880,820	1,707 12 8	⁴/₁₀₀					

SCHEDULE LXI—continued.

PART B.

RETURN showing Number, Area, and Rent of Improvement Leases current on 31 December, 1897, and Leases declared void during 1897.

Division.	Leases declared void during 1897.			Leases current on 31 December, 1897.		
	No.	Area.	Rent.	No.	Area.	Rent.
Eastern	3	a. r. p. 21,100 0 0	£ s. d. 30 13 7	50	a. r. p. 178,534 3 0	£ s. d. 446 17 11
Central	4	36,420 0 0	46 17 2	98	755,116 2 0	1,364 13 7
Western	12	230,800 0 0	199 17 0	70	1,352,597 0 0	1,143 16 10
	19	288,320 0 0	277 7 9	218	2,286,248 1 0	2,955 8 4

SCHEDULE LXII.

RETURN of Applications for Special Leases, and action taken thereon during the year 1897.

Land Board District.	Land District.	Number of Applications.			Applications granted.			Declined, lapsed, &c.		Pending.	
		Outstanding in 1896.	Made during 1897.	Total.	Number.	Area.	Rent.	Number.	Area.	Number.	Area.
					a. r. p.	£ s. d.		a. r. p.		a. r. p.	
Armidale	Armidale	3	5	8	4	50 2 26	12 10 0	2	15 0 0	2	54 0 0
	Glen Innes	1	...	1	1	4 0 0	2 0 0	...	...	...	...
	Inverell	6	1	7	5	354 6 0	20 10 0	2	340 0 0	...	...
	Tenterfield .....	...	3	3	...	...	...	1	320 0 0	2	200 0 0
	Walcha .....	...	2	2	...	...	...	...	...	2	30 0 0
Bourke	Bourke	3	11	14	5	300 2 38	33 9 2	4	653 0 0	5	1,519 0 0
	Brewarrina .....	...	1	1	...	...	...	...	...	1	10 0 0
	Cobar	1	2	3	1	50 0 0	5 0 0	...	...	2	425 3 0
	Wilcannia	9	2	11	5	336 2 14	12 0 0	4	333 0 0	2	10 0 0
	Willyama	3	7	10	2	6 0 0	6 0 0	1	10 0 0	7	51 1 18
Dubbo	Coonamble .....	...	12	12	...	...	...	4	401 1 0	8	2,440 0 0
	Dubbo	2	3	5	1	1 0 0	10 0 0	3	340 0 0	1	320 0 0
	Warren	2	1	3	...	...	...	1	4 1 6	2	320 0 0
Forbes	Barnedman East	1	...	1	1	50 0 0	3 15 0	...	...	...	...
	Forbes	1	4	5	1	10 0 0	2 10 0	...	...	4	1,241 0 0
	Parkes .....	...	4	4	1	15 0 0	4 0 0	1	320 0 0	2	420 0 0
Goulburn	Bega	1	8	9	1	3 3 25	8 0 0	...	...	8	401 3 18½
	Bombala .....	...	1	1	...	...	...	...	...	1	20 0 0
	Burrowa .....	...	2	2	...	...	...	1	24 0 0	1	20 0 0
	Cooma	3	1	4	2	25 0 10	6 15 0	1	5 0 0	1	15 0 0
	Eden .....	...	10	10	1	20 0 0	20 0 0	2	30 0 0	7	205 0 4
	Goulburn	1	...	1	1	7 0 0	10 0 0	...	...	...	...
	Gunning .....	...	2	2	1	5 0 0	2 0 0	...	...	1	320 0 0
	Moruya .....	...	3	3	...	...	...	...	...	3	740 0 0
	Moss Vale	1	...	1	...	...	...	...	...	1	68 0 0
Grafton	Bellingen	1	5	6	2	4 2 8	15 0 0	1	10 0 0	3	25 0 0
	Casino	5	10	15	6	806 0 4	42 2 5	3	1,053 3 0	6	434 0 0
	Grafton	8	61	69	21	294 3 20½	107 3 8	16	2,010 3 13	35	2,133 1 0
	Kempsey	1	4	5	...	...	...	1	320 0 0	4	40 0 0
	Lismore	10	11	21	5	254 0 2	36 0 0	4	16 0 20	12	209 2 8
	Murwillumbah	5	10	15	...	...	...	5	222 1 10	10	608 3 0
	Port Macquarie	1	7	8	1	1 0 19	10 0 0	...	...	7	62 2 0
Hay	Balranald	1	...	1	...	...	...	1	10 0 0	...	...
	Deniliquin	7	7	14	2	12 0 0	8 10 0	10	1,134 0 0	2	224 2 0
	Hay	5	7	12	4	447 1 17	34 0 0	4	545 2 0	5	301 2 0
	Hillston	1	...	1	...	...	...	...	...	1	10 0 0
	Wentworth .....	...	2	2	1	5 0 0	2 10 0	...	...	1	2 0 0
Maitland	Cassilis	1	...	1	...	...	...	...	...	1	3 0 0
	Gosford	1	3	4	1	55 2 13	3 0 0	2	60 0 0	1	4 2 16
	Muswellbrook .....	...	1	1	...	...	...	...	...	1	1 0 0
	Newcastle	7	2	9	3	2 1 34	15 0 0	3	13 1 1	3	30 0 0
	Paterson	1	3	4	1	0 0 3	2 0 0	...	...	3	0 1 9
	Raymond Terrace .....	...	1	1	...	...	...	...	...	1	4 0 0
	Scone	3	...	3	2	640 0 0	6 13 4	1	320 0 0	...	...
	Singleton	1	1	2	2	40 0 0	10 0 0	...	...	...	...
	Stroud	3	8	11	1	13 2 25	25 0 0	4	122 0 0	6	140 3 26
	Taree	2	8	10	5	15 3 19	44 0 0	2	0 1 0	5	36 0 5

SCHEDULE LXII—continued.

Land Board District.	Land District	Number of Applications			Applications granted.			Declined, lapsed, &c			Pending.		
		Outstanding in 1896	Made during 1897	Total	Number	Area	Rent	Number	Area.	Number.	Area.		
Moree	Bingara ..	...	1	1	1	a. r. p. 15 0 0	£ s. d. 2 0 0	...	...	...	...
	Moree ..	10	10	20	8	2,006 1 0	132 0 0	6	1,194 0 0	6	315 3 20		
	Walgett ..	2	2	4	6	233 0 0	16 18 19	1	40 0 0	2	109 0 0		
	Walgett North ..	3	2	5	2	42 0 0	10 0 0	2	326 0 0	1	50 0 0		
	Warnalda ..	2	3	5	3	98 0 0	4 15 0	1	0 2 34	3	485 0 0		
Orange	Bathurst ..	1	2	3	5	35 2 20	17 17 0	1	0 1 0	1	80 0 0		
	Carcoar ..	1	1	2	4	159 3 9	6 6 0	...	...	1	40 0 0
	Cowra ..	...	23	28	1	22 1 0	3 6 9	1	0 2 0	27	7,529 1 0	
	Lithgow ..	5	7	12	5	68 3 37	43 10 0	4	.....	3	16 0 10	
	Molong ..	...	4	4	...	...	.....	...	.....	4	353 3 28
	Mudgee ..	3	12	15	2	75 2 30	7 15 0	4	614 0 0	9	2,520 0 0		
	Orange ..	3	11	14	4	52 2 23	19 7 0	1	39 0 0	9	1,101 3 23		
	Rylstone ..	6	7	13	3	194 0 15	19 2 0	4	8 2 0	6	485 0 0		
	Wellington ..	3	44	47	2	226 0 0	21 12 0	10	1,347 0 0	35	5,117 2 0		
Sydney	Campbelltown	1	...	1	...	...	...	1	118 0 0	...	.....
	Kiana ..	...	22	22	...	...	...	4	40 0 0	18	321 2 14
	Liverpool ..	3	2	5	2	0 0 10	6 0 0	1	0 0 8	2	.....	
	Metropolitan ..	45	42	87	41	52 0 13½	1 906 10 0	12	13 3 26	35	7 0 0		
	Milton ..	1	5	6	1	0 0 6½	30 0 0	1	2 0 0	4	12 0 0		
	Nowra ..	2	4	6	1	53 2 20	3 0 0	1	140 0 0	4	167 2 37		
	Parramatta ..	11	4	15	2	0 1 0	4 0 0	2	0 1 2	11	4 0 32		
	Penrith ..	2	...	2	...	...	.....	...	...	2	78 0 0
	Picton ..	7	...	7	...	...	.....	7	59 0 0	...	.....
Windsor ..	8	...	8	...	...	.....	1	...	7	204 0 0	
Tamworth	Gunnedah ..	2	1	3	2	59 1 30	17 0 0	1	10 0 0	...	.....
	Murrurundi ..	1	1	2	1	59 0 0	5 0 0	...	...	1	10 0 0
	Narrabri ..	2	10	12	1	80 0 0	10 0 0	4	685 0 0	7	410 0 0		
	Tamworth ..	2	2	4	...	.....	.....	...	.....	4	596 0 0
Wagga Wagga ...	Alluy ..	1	1	2	...	.....	.....	1	2 0 0	1	4 0 0
	Cootamundry ..	4	4	8	3	46 0 0	6 0 0	1	10 0 0	...	.....
	Corowa ..	4	4	8	1	0 2 0	4 0 0	3	110 0 0	4	56 0 0		
	Gundagai ..	25	18	43	7	112 2 16	57 5 0	13	241 0 10	23	925 2 0		
	Narrandera ..	13	4	17	8	1,035 2 26	111 19 3	4	439 3 0	5	161 3 0		
	Tumut ..	2	4	6	1	20 0 0	1 0 0	1	18 0 0	4	370 0 0		
	Tumbarumba	1	...	1	1	30 0 0	1 10 0	...	.....	...	.....
	Tumbarumba North	1	...	1	...	.....	.....	...	.....	1	20 0 0
	Urana ..	5	6	11	4	39 0 30	14 5 0	2	6 0 0	5	15 0 3		
	Wagga Wagga ..	2	14	16	2	34 0 8	9 2 6	5	387 0 0	9	1,433 2 0		
Totals ...		286	514	800	214	8,748 3 10½	3,009 9 10	184	14,480 2 9	424	36,101 2 31½		

Note—Twenty leases granted were by purchase at auction No preliminary applications Two applications which stood lapsed were subsequently granted.

SCHEDULE LXIII.

RETURN showing Number, Area, and Rental of Special Leases forfeited during 1897.

Land Board District and Land District	No of Leases	Area	Rent	Land Board District and Land District	No of Leases	Area.	Rent.
Armidale—		a. r. p.	£ s. d.	Hay—		a. r. p.	£ s. d.
Tenterfield ..	1	20 0 0	10 0 0	Hay ..	1	1 0 0	15 0 0
Bourke—				Matland—			
Bourke ..	8	489 2 0	77 12 0	Stroud ..	2	30 0 0	20 0 0
Wilcannia ..	1	10 0 0	10 0 0	Moree—			
Willyama ..	4	439 3 28	50 0 0	Bingara ..	1	10 0 0	10 0 0
Forbes—				Walgett ..	1	2 0 0	10 0 0
Parkes ..	1	10 0 0	10 0 0	Sydney—			
Goulburn—				Metropolitan ..	5	0 2 31½	39 0 0
Milton ..	2	2 0 6	10 0 0	Totals	28	1,015 1 36½	271 12 0
Grafton—							
Bellengen ..	1	0 1 11	10 0 0				

SCHEDULE LXIV.

NUMBER, Area, and Rent of Special Leases which terminated during 1897.

Land Board District and Land District	No of Leases	Area.	Rent.	Land Board District and Land District.	No of Leases	Area.	Rent.
Bourke—		a r p.	£ s. d.	Moree—		a r p.	£ s. d.
Bourke	1	320 0 0	16 0 0	Moree	1	160 0 0	10 0 0
Dubbo—				Orange—			
Coonamble	1	8 2 2	10 0 0	Lithgow	2	19 3 30	35 0 0
Forbes—				Molong	1	4 3 28	10 0 0
Forbes	1	20 0 0	10 0 0	Rylstone	2	27 0 0	20 0 0
Parkes	1	5 0 0	10 0 0	Sydney—			
Grafton—				Campbelltown	1	0 2 14	10 0 0
Bellingen	1	5 0 0	10 0 0	Kiama	1	0 0 14	10 0 0
Grafton	5	4 1 38½	45 0 0	Liverpool	1	0 0 31½	6 0 0
Lismore	1	10 0 0	10 0 0	Metropolitan	20	3 3 36½	1,038 0 0
Murwillumbah	1	3 1 0	10 0 0	Parramatta	4	0 0 24	17 0 0
Hay—				Tamworth—			
Balranald	1	3 1 24	10 0 0	Gunnedah	1	1 2 12	10 0 0
Deniliquin	2	32 0 0	20 0 0	Wagga Wagga—			
Hay	3	409 3 0	35 5 0	Albury	1	2 0 0	10 0 0
Maitland—				Corowa	1	0 2 0	20 0 0
Gosford	3	0 0 30½	30 0 0				
Muswellbrook	1	.. ..	15 0 0	Totals	63	956 1 24½	1,491 0 0
Newcastle	2	0 0 17	7 10 0				
Taree	3	13 3 3	56 5 0				

SCHEDULE LXV.

RETURN of Special Leases current on 31st December, 1897, inclusive of Special Leases which terminated on 31st December, 1897.

Land Board District and Land District	No of Leases	Area	Rent	Land Board District and Land District	No of Leases	Area	Rent
Armidale—		a r p.	£ s. d.	Maitland— <i>continued.</i>		a r p.	£ s. d.
Armidale	7	392 2 26	52 10 0	Pateison	2	2 3 35	6 0 0
Glen Innes	2	29 0 0	12 0 0	Raymond Terrace	5	40 0 22½	52 7 0 0
Inverell	9	826 0 0	62 15 0	Scone	3	650 0 0	16 13 4
Tenterfield	1	60 1 0	1 5 0	Singleton	6	277 3 0	46 10 0
Bourke—				Stroud	7	254 2 25	107 10 0
Bourke	30	3,198 3 23	350 14 8	Talice	16	67 1 2½	222 5 0
Brewarrina	10	440 1 1	112 0 0	Moree—			
Cobar	6	994 0 0	62 10 0	Bingara	1	15 0 0	2 0 0
Wilcannia	11	761 0 30	94 0 0	Moree	21	2,939 3 31	281 19 11
Willyama	23	1,489 2 20	257 0 0	Walgett	7	233 2 0	26 18 3
Dubbo—				Walgett North	5	591 0 0	77 10 0
Coonamble	1	8 2 2	10 0 0	Warralda	4	183 0 0	14 15 0
Dubbo	4	206 3 0	45 0 0	Orange—			
Nyngan	3	102 1 0	15 0 0	Bathurst	5	35 2 20	17 17 0
Warren	3	76 0 0	40 0 0	Carcoar	5	179 3 9	16 6 0
Forbes—				Cowra	3	89 2 0	18 6 9
Barmedman East	1	50 0 0	3 15 0	Lithgow	15	138 1 3	204 10 0
Forbes	4	201 2 0	39 3 0	Molong	4	108 3 23	18 6 0
Parkes	4	35 0 0	36 0 0	Mudgee	3	95 2 31	17 15 0
Goulburn—				Orange	4	32 2 23	19 7 0
Bega	3	8 3 25	23 0 0	Rylstone	5	221 0 15	39 2 0
Burrowa	1	80 0 0	11 0 0	Wellington	4	294 2 0	41 12 0
Coonra	11	123 1 25	47 5 0	Sydney—			
Eden	6	152 0 14½	68 16 0	Campbelltown	7	507 2 24	108 5 0
Goulburn	3	17 0 0	31 5 0	Kiama	4	0 1 13	32 0 0
Gunning	1	5 0 0	2 0 0	Liverpool	5	0 1 12½	27 0 0
Moiuya	1	0 0 3	10 0 0	Metropolitan	217	157 2 15½	10,539 0 0
Queanbeyan	1	10 2 20	6 10 0	Milton	3	17 0 8½	45 0 0
Young	1	226 0 0	11 0 0	Nowra	4	296 1 25	31 0 0
Grafton—				Parramatta	31	18 0 29½	229 0 0
Bellingen	6	30 0 8	48 0 0	Wollongong	3	1 0 33½	37 0 0
Casino	11	994 0 6	121 10 5	Tamworth—			
Grafton	43	406 1 8½	407 3 10	Coonabarabran	2	52 0 0	22 0 0
Kempsey	2	20 1 20	25 0 0	Gunnedah	7	147 1 22	61 0 0
Lismore	24	453 1 17½	346 8 0	Murrumbidgee	1	59 0 0	5 0 0
Murwillumbah	6	187 1 6	28 12 3	Narrabri	15	1,615 2 0	150 0 0
Port Macquarie	4	6 0 38½	44 0 0	Tamworth	3	30 2 0	18 0 0
Hay—				Wagga Wagga—			
Balranald	3	7 0 0	30 0 0	Albury	1	2 0 0	10 0 0
Deniliquin	16	1,227 1 0	196 2 0	Cootamundra	7	198 0 0	51 0 0
Hay	15	1,527 0 17	166 5 0	Corowa	4	7 2 35	20 0 0
Hillston	2	7 0 0	15 0 0	Gundagai	13	230 2 21	99 10 0
Wentworth	1	5 0 0	2 10 0	Narrandera	12	1,058 0 26	61 19 3
Maitland—				Tamberumba	2	32 0 0	11 10 0
Dungog	1	0 0 14	10 0 0	Tumut	2	20 3 33	6 0 0
Gosford	6	206 1 0½	70 10 0	Urana	5	40 2 15	30 5 0
Maitland	3	0 1 2	117 0 0	Wagga Wagga	3	44 0 8	25 12 6
Muswellbrook	1	0 3 0	10 0 0				
Newcastle	34	113 1 24	421 10 0	Totals	804	25,695 1 0	16,332 0 2

Three leases terminated in 1896 have been revised in 1897

SCHEDULE LXVI.

RETURN of Scrub Leases under Section 35 of the Crown Lands Act of 1889 current on the 31st December, 1897, and of applications received, leases granted and expired during 1897.

Land Board District.	Land District.	No. of Application.			Area of outstanding applications.	Area applied for during 1897.	Total area.	Applications declined or withdrawn.				Leases granted during 1897.			Leases forfeited during 1897.			Leases expired during 1897.			Leases current on 31st Dec., 1897.		
		Outstanding from 1896.	Received during 1897.	Total.				Outstanding for 1896.	Received during 1897.	Total.	No. not finally dealt with.	No.	Area.	Annual rent.	No.	Area.	Annual Rent.	No.	Area.	Annual Rent.	No.	Area.	Annual Rent.
Bourke	Cobar	1	...	1	24,800	.....	.....	...	...	...	1	.....	.....	...	.....	.....	...	.....	.....	...	.....	.....
Dubbo	Dubbo	...	1	1	.....	35,000	35,000	...	...	...	1	.....	.....	...	.....	.....	...	.....	.....	...	.....	.....
	Nyngan	3	4	7	192,736	161,677	354,413	...	...	...	7	.....	.....	...	.....	.....	...	.....	.....	...	.....	.....
Forbes	Barmedman	...	1	1	.....	8,486	8,486	...	...	...	1	.....	.....	...	.....	.....	...	.....	.....	...	.....	.....
	Forbes	...	6	6	.....	41,619	41,619	...	...	...	...	.....	.....	...	.....	.....	...	.....	.....	...	.....	.....
	Condobolin	2	11	13	5,144	161,597	166,741	2	...	2	11	.....	.....	...	.....	.....	...	.....	.....	1	679	1 8 4
	Parke	9	8	17	305,403	112,852	418,250	4	1	5	11	1	14,325	29 16 11	...	.....	.....	...	.....	1	14,325	29 16 11
Hay	Balranald	1	...	1	4,000	.....	4,000	1	...	1	...	...	.....	.....	...	.....	.....	...	.....	...	.....	.....
	Deniliquin	...	1	1	.....	4,960	4,960	...	...	...	1	.....	.....	...	.....	.....	...	.....	.....	1	640	0 18 2
	Hay	1	1	2	11,520	10,232	11,752	1	...	1	1	...	.....	.....	...	.....	.....	...	.....	1	2,630	2 3 10
	Hillston	...	...	...	.....	.....	.....	...	...	...	...	...	.....	.....	1	10,240	33 8 0	...	.....	1	5,000	4 3 4
	Hillston North	...	...	...	.....	.....	.....	...	...	...	...	...	.....	.....	...	.....	.....	...	.....	2	16,040	88 3 4
	Wentworth	...	...	...	.....	.....	.....	...	...	...	...	...	.....	.....	...	.....	.....	...	.....	1	1,391	1 9 0
Maitland	Scone	...	...	...	.....	.....	.....	...	...	...	...	...	.....	.....	...	.....	.....	...	.....	1	560	1 0 0
	Singleton	...	...	...	.....	.....	.....	...	...	...	...	...	.....	.....	...	.....	.....	...	.....	2	1,072	30 0 0
Moree	Bingara	...	...	...	.....	.....	.....	...	...	...	...	...	.....	.....	...	.....	.....	...	.....	1	3,910	3 1 2
	Moree	2	1	3	1,040	400	1,440	...	...	...	2	1	530	0 10 0	...	.....	.....	...	.....	18	142,108	128 14 10
	Warialda	1	1	...	2,000	1,000	3,000	...	...	...	2	...	.....	.....	...	.....	.....	...	.....	5	22,038	30 19 6
Sydney	Nowra	...	...	...	.....	.....	.....	...	...	...	...	...	.....	.....	...	.....	.....	...	.....	1	1,920	3 0 0
Tamworth	Gunnedah	...	1	1	.....	1,867½	1,867½	...	1	...	...	1	1,867½	10 10 0	1	1,867½	10 10 0	...	.....	...	.....	.....
	Narrabri	1	...	1	640	.....	640	...	...	...	...	1	590	0 2 10	...	.....	.....	...	.....	3	9,810	1 18 10
Wagga Wagga	Tumut	...	...	...	.....	.....	.....	...	...	...	...	...	.....	.....	...	.....	.....	...	.....	1	175	0 6 3
	Totals	21	36	55	547,288	554,690½	1,052,168½	8	2	9	38	4	17,312½	40 19 9	2	12,107½	48 18 0	40	222,298	327 3 6	

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SCHEDULE LXVII.

RETURN showing Number, Area, and Rent of Leases of Inferior Crown Lands current on 31st December, 1897, and of Leases granted and forfeited during 1897.

Land Board District	Land District	Leases granted during 1897			Leases declared forfeited and cancelled during 1897			Leases current on 31st December, 1897		
		No	Area	Rent	No	Area	Rent	No	Area	Rent
Goulburn . . Forbes Hay .	Bombala							8	Acres 82,490	£ s d. 128 8 1
	Queanbeyan							2	23,500	43 15 0
	Parkes							2	6,120	25 10 0
	Balranald							2	23,500	43 15 0
	Hilston North							1	45,450	17 15 0
Wagga Wagga	Wentworth							1	141,000	27 10 0
	Narrandera				2	4,950	3 0 0	21	100,215	67 7 6
	Totals				2	4,950	3 0 0	37	422,275	354 0 7

SCHEDULE LXVIII.

RETURN showing the action taken during 1897 in respect of Residential Leases

Land Board District and Land District	Number of Applications			Area applied for	No of applications intolled at d viti drawa	No of applications in course of action on 31 Dec 1897	Leases granted during 1897			Leases declared forfeited during 1897			Leases current on 31st December, 1897			
	Outstanding on 31/12/96	Received during 1897	Total to be dealt with				No	Area	Annual Rent	No	Area	Annual Rent	No	Area	Annual Rent	
Armidale—				a r p				a r p	£ s d		a r p	£ s d		a r p	£ s d	
Armidale	2	1	3	60 0 0			3	60 0 0	7 10 0		19	260 0 0	35 5 0			
Inverell		1	1	10 0 0		1					12	120 0 0	13 0 0			
Tenterfield											2	20 0 0	2 15 0			
Glen Innes											4	40 0 0	3 15 0			
Walcha		5	5	52 0 0	1	4					1	10 0 0	3 0 0			
Bourke—																
Cobar	3	1	3	50 0 0	1	1	1	10 0 0	0 10 0		1	10 0 0	0 10 0			
Willyama	2	1	3	10 0 0		1	2	40 0 0	3 0 0	2	20 0 0	3 0 0	11	130 0 0	19 5 0	
Walcanna		1	1			1										
Cooma—																
Bega											1	10 0 0	1 0 0			
Bombala											1	10 0 0	2 0 0			
Bradwood	4	4	8	64 1 27		5	3	29 1 27	4 0 0		4	37 1 8	7 0 0			
Cooma		1	1	4 0 0		1					5	39 1 5	5 15 0			
Moruya	3	6	9	76 1 34	2	5	2	20 0 0	2 5 0		1	10 0 0	1 10 0			
Queanbeyan	1		1	10 0 0		1										
Forbes—																
Forbes	1	2	3	30 0 0	1	1	1	20 0 0	1 10 0		7	90 0 0	14 18 0			
Grenfell											5	50 0 0	11 5 0			
Parkes		1	1	10 0 0		1					3	30 0 0	6 5 0			
Goulburn—																
Boorowa	1		1	20 0 0		1				1	10 0 0	2 0 0	2	20 0 0	4 5 0	
Goulburn	1		1	5 0 0			1	5 0 0	1 0 0		1	5 0 0	1 0 0			
Young	1	3	4	80 0 0		2	2	40 0 0	4 0 0		21	222 3 6	43 15 0			
Grafton—																
Bellingen		3	3	60 0 0		1	2	40 0 0	8 10 0		3	50 0 0	9 10 0			
Casino		2	2	30 0 0		1										
Moree—																
Bingara	1	1	2	25 0 0	1		1	20 0 0	2 10 0	1	5 0 0	1 0 0	5	49 0 0	8 10 0	
Orange—																
Bathurst	4	15	19	245 0 0	3	14	2	20 0 0	2 0 0		11	89 2 21	11 5 0			
Carcoar	4		4	70 0 0	2	1	1	20 0 0	1 0 0	1	6 3 17	1 0 0	10	90 0 0	10 15 0	
Cowra	1	1	2	20 0 0		2										
Molong		1	1	10 0 0		1					2*	9 2 34	2 11 6	1	20 1 6	0 18 6
Mudgee	13	12	25	260 2 17	2	11	12	146 2 17	15 18 0	2	11 2 10½	2 5 0	39	396 0 6	48 16 5	
Orange	1	4	5	90 0 0		4	1	20 0 0	1 0 0		4	50 0 0	4 0 0			
Wellington	2	4	6	90 0 0		5	1	20 0 0	1 0 0		3	40 0 0	3 0 0			
Tamworth—																
Tamworth	4	1	5	58 0 0		2	3	28 3 0	4 15 0		5	48 3 0	8 15 0			
Wagga Wagga—																
Cootamundra	1		1	10 0 0		1										
Gundagai	17	11	28	448 0 0	3	22	3	40 0 0	4 0 0		15	145 1 23	23 7 0			
Tumberumba	4		4	58 2 0		2	2	40 0 0	3 0 0	1	10 0 0	1 5 0	6	80 0 0	7 0 0	
North	2	5	7	120 0 0		7				2	20 0 0	2 0 0	8	120 0 0	10 5 0	
Tumut	8	15	23	425 0 0	1	18	4	80 0 0	6 0 0							
Wagga Wagga	1		1	20 0 0		1										
Totals	82	101	183	2,521 3 38	19	116	47	699 3 4	73 8 0	13	93 0 21½	15 1 6	211	2,293 1 35	322 4 11	

* Expired by effluxion of time

SCHEDULE LXIX

RETURN showing Number, Area, and Rental of Snow Leases current on 31st December, 1897, and of Snow Leases granted and forfeited during 1897.

Land Board District	Land District	Leases granted during 1897			Leases declared forfeited during 1897			Leases current on 31st December, 1897		
		No	Area	Rent	No	Area	Rent	No	Area	Rent
Cooma Wagga Wagga	Cooma		acres	£ s d	4	17,710	225 12 10	13	43,560	395 14 2
	Tumberumba							5	27,280	102 7 1
	Tumut	1	7,002	43 15 3	1	6,945	14 9 5	3	24,157	79 10 1
	Totals	1	7,002	43 15 3	5	24,685	240 2 3	21	94,997	577 11 4

SCHEDULE LXX.

RETURN showing Number and Area of Annual Leases applied for and granted under Section 33 of Crown Lands Act of 1889, and the number disallowed and withdrawn during 1897.

Land Board District.	Land District.	No. of Applications received during 1897.	Area applied for during 1897.		No. of Applications disallowed and withdrawn during 1897, including applications made during previous years.	No. of Applications approved, and in virtue of which Leases have been granted during 1897, including applications made during previous years.	Area of Leases Granted.		Rent.	
			a.	r. p.			a.	r. p.	£	s. d.
Armidale	Armidale	130	74,566	1 20	14	120	73,448	3 20	425	9 5
	Glen Innes	31	19,710	2 0	8	37	20,479	1 0	121	13 4
	Inverell	104	93,807	2 0	38	77	64,943	0 0	437	15 9
	Tenterfield	42	21,565	0 0	6	45	26,455	0 0	138	17 10
	Walcha	27	21,284	0 0	6	26	23,558	0 0	173	4 5
	Totals	334	230,933	1 20	72	305	208,884	0 20	1,297	0 9
Bourke	Bourke	1	1,675	0 0	.....	1	1,675	0 0	6	19 7
	Brewarrina and Brewarrina East.	3	1,456	0 0	1	3	1,241	0 0	8	3 0
	Wilcannia	1	1,280	0 0	.....	.....	.....	.....	.....	.....
	Totals	5	4,411	0 0	1	4	2,916	0 0	15	2 7
Dubbo	Coonamble	25	27,805	0 30	9	13	12,025	0 0	156	3 7
	Dubbo	53	54,511	0 0	13	31	25,674	0 0	164	10 11
	Nyngan	3	1,584	1 0	1	1	244	0 0	3	1 1
	Warren	10	2,420	0 0	1	2	670	0 0	11	3 4
	Totals	91	86,320	1 30	24	47	38,613	0 0	334	18 11
Forbes	Barmedman and Barmedman East.	2	1,090	0 0	.....	.....	.....	.....	.....	.....
	Condobolin	1	640	0 0	.....	2	1,213	0 0	7	8 10
	Forbes	7	7,661	1 0	1	1	8	0 0	1	0 0
	Grenfell	2	380	0 0	1	2	159	0 0	6	5 0
	Parkes	2	732	2 0	1	1	750	0 0	2	10 0
	Totals	14	10,503	3 0	3	6	2,130	0 0	17	3 10
Goulburn	Bega	17	67,150	0 30	1	23	7,490	0 16	57	6 10
	Bombala	32	18,811	3 32	10	19	9,497	1 0	78	3 3
	Boorowa	33	10,743	2 0	12	27	9,532	1 0	73	10 1
	Braidwood	88	45,622	1 0	10	96	49,580	0 0	222	17 7
	Cooma	169	126,576	0 0	14	140	96,135	3 0	543	6 7
	Eden	14	30,60	0 0	4	9	2,230	3 0	19	18 4
	Goulburn	96	52,374	0 0	7	115	63,686	0 0	327	18 3
	Gunning	36	16,365	3 0	3	39	16,962	3 30	92	13 3
	Moruya	15	5,217	0 31	2	16	6,636	0 31	46	11 9
	Moss Vale	15	8,604	0 0	1	9	5,800	0 0	29	7 11
	Queanbeyan	57	31,346	2 0	12	48	30,377	3 0	152	0 10
	Yass	26	11,211	2 16	2	44	22,004	0 39	130	0 2
	Young	23	8,290	3 10	4	17	6,274	3 15	53	17 6
	Totals	621	405,373	2 39	82	603	326,208	0 11	1,827	12 4
	Grafton	Bellingue	3	2,560	0 0	5	3,017	0 0	21	3 4
Casino		50	24,374	1 0	19	63	26,892	2 10	247	13 1
Grafton		67	36,123	2 0	2	62	27,630	1 0	183	19 7
Kempsey		4	1,470	0 0	1	3	460	0 0	4	10 0
Lismore		10	3,227	0 0	3	9	1,414	0 10	23	17 6
Port Macquarie		4	1,923	0 0	.....	5	3,200	0 0	16	0 0
Totals	138	69,677	3 0	24	147	62,613	3 20	497	3 6	
Hay	Balranald	1	1,280	0 0	1	.....	.....	.....	.....	.....
	Deniliquin	3	115	0 0	1	2	165	0 0	11	10 0
	Hillston and Hillston N.	21	30,768	0 0	8	17	21,189	0 0	75	0 3
	Hay and Hay North ..	17	16,174	0 0	8	9	7,886	1 0	113	13 8
	Wentworth	1	1,920	0 0	2	.....	.....	.....	.....	.....
Totals	43	5,0257	0 0	20	29	29,240	1 0	200	3 11	
Maitland	Cassilis	31	15,417	3 30	9	30	14,423	1 30	86	3 10
	Dungog	8	4,641	3 29	1	9	4,618	3 0	27	14 1
	Gosford	13	12,107	2 17	.....	13	12,792	2 17	60	15 2
	Maitland	4	1,015	2 0	.....	3	1,071	0 0	8	16 7
	Muswellbrook	4	1,340	0 0	.....	5	2,200	0 0	11	9 2
	Newcastle	1	640	0 0	.....	1	500	0 0	2	1 8
	Paterson	13	5,720	2 0	3	10	4,210	2 0	25	19 9
	Raymond Terrace	2	178	1 10	.....	5	430	3 15½	6	9 11
	Scone	23	14,032	1 0	6	26	17,730	0 0	93	12 0
	Singleton	11	1,102	0 0	3	7	575	2 0	10	5 0
	Stroud	48	31,980	0 0	4	38	24,907	0 0	127	3 2
	Taree	14	7,130	0 0	.....	12	7,115	0 0	35	11 3
	Wollombi	14	6,980	0 0	3	13	5,920	0 0	32	12 6
	Totals	186	102,346	0 6	29	172	96,494	2 22½	528	14 1

SCHEDULE LXX—continued.

Land Board District.	Land District.	No. of Applications received during 1897.	Area applied for during 1897.			No. of Applications disallowed and withdrawn during 1897, including applications made during previous years.	No. of Applications approved, and in virtue of which Leases have been granted during 1897, including applications made during previous years.	Area of Leases granted.			Rent.		
			a.	r.	p.			a.	r.	p.		£	s.	d.
Moree	Bingara	12	8,093	2	0	1	10	11,186	0	0	25	14	5
	Moree	22	17,097	3	0	22	.....	.....	.....	.....	.....	.....	.....
	Walgett and Walgett North..	8	10,210	0	0	4	2	630	0	0	7	17	6
	Warialda	11	7,544	3	0	2	7	5,149	1	0	22	9	9
	Total	53	42,946	0	0	29	19	16,965	1	0	56	1	8
Orange	Bathurst	53	46,431	2	0	10	73	43,295	3	27	232	6	3
	Carcoar	64	34,883	3	0	14	71	37,634	2	0	206	3	11
	Cowra	27	9,284	3	0	2	23	7,095	0	0	67	15	0
	Lithgow	54	25,354	3	0	1	67	34,164	0	0	168	19	3
	Molong	36	16,552	0	0	6	29	14,662	1	2	116	5	5
	Mudgee	74	35,888	3	10	19	67	29,795	3	30	155	1	0
	Orange	27	11,659	0	0	5	29	11,339	1	1	70	1	10
	Rylstone	69	30,202	0	0	1	72	31,420	0	0	161	6	7
	Wellington	16	6,555	1	0	3	18	8,532	1	0	118	7	4
	Total	420	216,811	3	10	61	449	217,939	0	20	1,296	6	7
Sydney	Campbelltown .....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
	Liverpool	1	1,637	0	0	.....	1	1,637	0	0	12	0	0
	Metropolitan .....	.....	.....	.....	.....	1	1	44	0	0	2	10	0
	Milton	22	11,546	1	24	2	11	6,220	3	7	18	5	0
	Nowra	27	15,668	0	0	2	24	15,275	0	0	38	0	5
	Parramatta	1	250	0	0	.....	.....	.....	.....	.....	.....	.....	.....
	Penrith .....	.....	.....	.....	.....	.....	1	1,037	0	0	5	0	0
	Picton	5	2,880	0	0	2	8	6,370	0	0	15	0	0
	Windsor	15	9,757	0	0	5	2	680	0	0	3	0	0
Total	71	41,738	1	24	13	48	31,263	3	7	88	15	5	
Tamworth	Coonabarabran.....	18	15,880	0	0	5	21	14,586	2	0	76	14	2
	Gunnedah.....	14	8,333	2	0	6	8	2,899	1	0	17	2	3
	Murrurundi.....	17	6,876	1	0	5	11	6,883	2	0	31	8	2
	Narrabri.....	38	28,688	0	0	20	27	18,210	2	0	73	16	6
	Tamworth.....	57	31,125	2	0	3	61	32,303	3	0	133	19	6
	Total	144	90,903	1	0	39	128	74,883	2	0	333	0	7
Wagga Wagga...	Albury	34	18,749	0	0	7	46	20,477	0	0	249	8	0
	Cootamundry and Cootamundry Central.	7	1,400	0	0	1	4	892	3	39	30	15	5
	Corowa	2	560	0	0	.....	2	426	0	0	16	11	0
	Gundagai	39	14,923	0	31	7	28	12,737	0	0	93	15	11
	Narrandera	6	4,458	0	0	2	5	2,596	1	0	104	12	0
	Tambarumba and Tambarumba Central.	45	39,170	0	0	9	45	35,926	0	0	228	17	4
	Tumut	62	36,446	3	0	5	59	31,209	0	0	216	19	3
	Urana	1	.....	.....	.....	.....	5	5,690	0	0	234	7	6
	Wagga Wagga.....	6	5,749	2	0	3	5	5,734	0	0	50	6	7
	Total	202	121,456	1	31	34	199	124,688	0	39	1,225	13	0
Grand total ...	2,322	1,473,680	1	24	431	2,155	1,232,251	3	19½	7,717	17	2	

SCHEDULE LXXI.

RETURN showing Areas offered by Auction and Tender as Annual Leases under 85th section of the Crown Lands Act of 1884, during 1897 and Area and Rent of such Leases granted.

Land Board District and Land District.	No. of Lots offered.	Area offered.	Area of Leases granted.	Rent.	Land Board District and Land District.	No. of Lots offered.	Area offered.	Area of Leases granted.	Rent.		
		a. r. p.	a. r. p.	£ s. d.			a. r. p.	a. r. p.	£ s. d.		
Armidale—					Hay—						
Glen Innes.....	8	1,849	3	0	Hay	3	1,416	0	0		
Walcha	4	3,260	0	0	Deniliquin.....	1	115	0	0		
Bourke—					Hillston	13	11,156	0	0		
Bourke	1	443	0	0	Maitland—						
Brewarrina.....	15	10,582	0	0	Dungog	1	19	2	0		
Brewarrina East..	1	433	0	0	Orange—						
Goulburn—					Carcoar.....	1	139	0	0		
Bombala	2	1,280	0	0	Mudgee.....	6	2,026	0	0		
Cooma	4	2,464	0	0	Tamworth—						
Goulburn	1	750	0	0	Tamworth	4	494	0	0		
Moruya	1	145	0	0	Wagga Wagga—						
Queanbeyan	2	2,950	0	0	Albury	2	1,274	0	0		
Yass	3	5,080	0	0	Corowa	1	160	0	0		
Grafton—					Gundagai	1	950	0	0		
Grafton	11	1,913	0	0	Narrandera	1	1,872	0	0		
Casino	2	3,200	0	0	Tambarumba	13	23,600	0	0		
						102	77,571	1	0		
							33,232	1	0		
									617	18	5

SCHEDULE LXXIV.

RETURN showing the Number, Area, and Rental of Permissive Occupancies current on 31st December, 1897.

Land Board District.	No.	Area.	Annual Rental.	Land Board District.	No.	Area.	Annual Rental.
		a. r. p.	£ s. d.			a. r. p.	£ s. d.
Armidale	21	35 2 26	39 12 0	Moree	3	382 0 0	30 0 0
Bourke	10	11,783 3 18	49 17 0	Orange	8	35 1 32	10 0 0
Dubbo	17	6,268 3 10	34 7 2	Sydney	153	1,175 0 5	363 16 2
Forbes	1	26 0 0	0 10 0	Tamworth	8	4 0 0	20 12 0
Goulburn	43	218 1 9	39 15 0	Wagga Wagga	21	14 3 1	36 14 6
Grafton	81	30 2 29	88 8 0				
Hay	13	30,696 3 11	100 10 0	Total			
Maitland	168	68 1 5	169 1 0		547	50,739 2 26	984 2 10

SCHEDULE LXXV.

NEWCASTLE PASTURAGE RESERVE.

RETURN showing, up to 31st December, 1897, the state of Applications to Purchase under the Newcastle Pasturage Reserve Acts.*

Total number of Applications received.	Number of Applications in which sale has been gazetted or disallowed.		Total area of Applications gazetted for sale.	Total amount of purchase money.	Applications declared forfeited for non-receipt of instalment money.*		Applications to purchase in which purchase money has been paid in full.		Applications now current.*	
	Sale gazetted.	Disallowed.			No.	Purchase money.	No.	Purchase money.	No.	Purchase money.
1,169	964	205	a. r. p. 226 1 17½	£ 61,314	66	£ s. d. 3,915 18 10	319	£ s. d. 19,474 4 3	579	£ s. d. 37,923 16 11

* All action in connection with these purchases was suspended from November, 1895, to 20th November, 1896, under the Newcastle Pasturage Reserve Acts Amendment Act of 1895, and all purchases standing good at the time of passing of the Act were brought under same.

SCHEDULE LXXVI.

RETURN of Lands resumed during 1897 under section 105 of the Crown Lands Act of 1884, section 41 of the Crown Lands Act of 1889, and section 7 of the Public Trusts Act of 1897.

Originally dedicated for—	Place.	Area.	How disposed of.
Public School site	Green's Gonyah ...	a. r. p. 2 0 0	1 acre 2 roods 9 perches rededicated, the remainder taken for roadway.
	Gosper's Downs ...	2 0 0	Included in a special area.
	Beecroft	2 0 0	Included in a recreation reserve.
	Byron Creek.....	2 0 0	} To be sold or otherwise appropriated under the Crown Lands Acts.
	Bluff River	2 0 0	
	Angledool.....	2 0 0	
	Michelago	2 0 0	
	Flatlands Upper ...	2 0 0	
	Grenfell	0 0 12	
School of Arts site	Parke	0 1 0	To be sold by auction. " "
Council Chambers site	Glenceo	16 2 0	Part rededicated.
General Cemetery	Moonbi	7 2 0	Rededicated with slightly increased area.
	Hay	7 2 0	" "
	Chandler	4 0 0	Rededicated with amended internal subdivision.
	Ben Lomond	19 3 30	Part rededicated.
Public Recreation	Bathurst	5 0 1	} Rededicated in slightly amended form.
	"	2 0 20	
	Lawson	4 0 0	Reserved for recreation, exclusive of 1 rood 33 perches taken for railway.
	Narrabri	108 3 14	92 acres 2 roods 17 perches rededicated, the remainder reserved for travelling stock.
	Glenbrook	77 3 0	Reserved for recreation, exclusive of 15½ acres taken for railway.
Cricket Ground.....	Tamworth.....	6 3 3	Rededicated for athletic sports.
Hospital for the Insane	Rydalmere, near Parramatta.	122 2 27	117 acres 2 roods 25 perches rededicated, the remainder taken for railway, &c.
Railway purposes	Quirindi	0 3 26	Sold by auction.
Fire Engine-house.....	Sydney, St. Lawrence..	0 0 2	} To be leased or otherwise appropriated under the Crown Lands Acts.
Fire Station (additional)	"	0 0 2	
Church of England Church and Parsonage Sites.	Sanctrox.....	1 2 0	Absorbed in amended design of village.
Church of England Church, School, and Parsonage Sites.	Hargraves.....	2 0 0	Rededicated in slightly amended form.
Total		403 1 17	

SUMMARY.

Year.	Number of Resumptions.	Area resumed.
1896	33	a. r. p. 5,178 2 35½
1897	27	403 1 17

SCHEDULE LXXVII.

RETURN of Reserves from Sale notified during 1897.

Land Board District.	Access.		C.P. Gold-field.		Conditional Sale.		Mining.		Pending completion of exchange.		Pending Subdivision.		Preservation and growth of Timber.		Recreation.		Railway.		School.		Temporary Common.		Travelling Stock and Camping.		Village and Suburban Settlement.		Water Supply.		Other Public Purposes.		Other than Auction Sale only.		Totals.		
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
Armidale	11	730	...	...	...	...	3	1,309	8	2,826	...	...	7	7,755	1	10	1	25	4	17	3	15,035	22	6,331	...	...	1	14	7	340	...	...	68	34,392
Bourke .....	...	...	...	...	...	...	...	...	...	...	...	...	1	14,000	1	6	...	...	1	6	1	4,385	24	45,975	...	...	...	...	15	13,074	...	...	43	77,446
Dubbo	9	28,410	...	...	...	...	2	7,800	5	13,996	8	9,684	1	62,914	5	124	...	...	5	40	4	12,300	28	23,789	4	1,499	10	1,373	21	1,466	1	160	103	163,575
Forbes	11	4,013	1	6,400	2	1,283	1	415	...	...	7	27,250	15	37,810	2	20	3	160	11	57	3	4,486	27	20,688	...	...	5	2,213	10	5,208	8	1,194	106	111,197
Goulburn	7	707	...	...	1	350	4	3,034	10	3,374	1	50	1	300	9	3,706	...	...	18	89	2	802	11	1,539	...	...	6	496	54	1,226	11	1,410	135	17,083
Grafton	5	362	...	...	...	...	...	4	1,215	1	413	3	23,100	8	90	8	14,145	19	115	2	880	6	797	2	717	11	690	76	2,647	1	6	146	45,177	
Hay	1	640	...	...	3	2,271	2	281	6	2,720	3	21,816	12	23,231	3	122	...	...	...	...	5	6,630	21	12,785	...	...	1	56	18	2,160	5	744	80	73,461
Maitland	5	1,219	1	2,640	...	...	1	760	13	2,949	...	...	5	14,920	4	29	1	73	8	49	...	...	11	6,856	1	1,170	14	2,756	18	1,755	...	...	82	35,176
Moree	14	2,800	2	42,640	...	...	...	...	15	18,471	2	5,602	1	4,818	1	40	...	...	6	19	1	175	37	23,535	1	2,250	3	2,731	13	17,768	4	2,799	100	123,648
Orange	3	243	4	9,815	...	...	5	45,481	3	1,872	6	6,040	2	2,420	6	26	1	6	13	73	4	1,987	30	6,352	2	83	21	2,765	24	904	4	750	128	78,817
Sydney	2	49	...	...	...	...	...	...	...	...	3	295	1	55	10	1,630	2	16	1	8	...	...	8	2,294	...	...	6	166	19	1,236	...	...	52	5,749
Tamworth	8	1,766	...	...	...	...	1	7,300	12	23,042	3	31,200	2	23,580	1	9	...	...	2	12	...	...	14	7,965	...	...	7	4,903	11	416	3	742	64	100,935
Wagga Wagga ...	9	26,291	1	40	1	1,318	1	1,030	1	1,030	3	2,552	16	46,536	6	41	1	35	15	100	2	174	17	6,105	5	2,446	7	2,131	29	750	20	3,233	140	94,625	
	85	67,230	9	61,535	7	5,222	20	67,410	83	72,308	37	104,902	67	261,439	57	5,853	17	14,460	103	585	27	46,854	256	165,011	15	8,165	92	20,294	315	48,970	57	11,043	1,247	861,281	

SCHEDULE LXXVIII.

RETURN of Reserves from Sale revoked during 1897.

Land Board District.	Access.		Other than Auction Sale.		C.P. Gold-field.		Conditional Sale, Conditional Lease, and Annual Lease.		Pending Subdivision.		Preservation of Timber.		Public Buildings.		Recreation.		Railway.		School.		Temporary Common.		Travelling Stock and Camping.		Village and Suburban Settlement.		Water Supply.		Other Public Purposes.		Tracts or Areas previously notified as not available.		Totals.		
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
Armidale	8	1,358	3	820	3	20,477	...	...	2	290	8	17,449	1	2	3	35	7	6,338	2	10	10	16,335	33	9,169	4	847	20	10,707	13	3,371	5	43,206	122	130,414
Bourke	5	8,350	...	...	...	...	...	...	...	...	...	...	...	...	1	6	...	...	1	1	14	3,852	40	54,799	5	8,084	18	19,404	3	1,012	...	...	87	95,508
Dubbo	9	29,024	1	800	1	...	2	720	3	26,060	1	1,300	3	14	3	67	9	69,342	...	...	6	6,732	51	72,555	2	15,460	34	12,241	20	434,560	30	364,085	174	1,032,962
Forbes	13	9,651	2	125	7	3,499	1	105	4	16,215	18	37,403	2	2	1	10	12	11,611	4	44	6	354	54	27,335	1	6	45	33,940	17	34,679	9	38,207	196	213,186	
Goulburn	6	1,056	10	1,622	5	5,172	2	422	1	50	6	6,906	2	16	4,355	6	624	2	23	12	4,606	14	2,583	4	313	45	17,532	42	5,199	1	2,725	174	53,190		
Grafton	3	540	...	...	1	10	...	...	...	...	7	1,476	3	6	11	102	7	1,968	4	17	6	2,039	8	2,019	9	2,550	25	3,550	29	1,381	5	16,780	118	32,438
Hay	6	3,526	8	7,777	...	...	2	5,140	3	9,878	15	12,825	2	4	1	6	5,875	2	14	3	2,194	42	17,633	2	515	52	52,846	33	10,862	8	240,394	185	369,484	
Maitland .....	...	...	...	...	...	...	...	...	2	7,630	1	6	2	313	3	3,693	...	...	6	745	16	4,476	6	3,645	15	11,239	7	2,790	3	14,110	61	48,647		
Moree	10	7,696	2	577	5	41,081	6	14,559	...	...	1	608	1	2	...	...	1	100	...	...	1	35	20,602	3	1,726	55	43,866	18	28,401	16	129,536	154	288,755	
Orange	3	1,026	5	1,094	16	1,340	1	40	4	843	2	952	3	10	7	535	20	25,700	4	73	14	229	32	16,943	14	1,525	21	7,852	18	1,175	...	...	164	59,337
Sydney	2	48	...	...	...	...	...	...	1	101	8	4,126	1	2	8	675	4	12,847	...	...	1	1,200	3	5,157	3	1,621	7	778	12	7,685	...	...	50	34,240
Tamworth	8	16,326	14	2,815	1	2	1	190	1	220	10	44,457	1	5	5	132	5	2,597	4	2	360	26	11,984	2	464	21	5,971	11	17,093	13	32,519	122	135,144
Wagga Wagga ...	18	30,050	25	3,064	2	1,240	11	10,446	4	5,666	18	27,529	4	13	8	227	6	4,806	5	41	8	3,072	30	21,017	6	3,308	82	56,912	32	8,887	12	15,246	271	191,524	
	91	108,651	70	18,694	41	72,823	25	31,622	23	59,323	96	162,661	24	68	66	6,458	86	145,501	25	227	89	41,719	384	266,272	61	40,064	440	276,838	255	557,100	102	896,808	1,878	2,634,829	

SCHEDULE LXXIX.

RETURN of Reserves from Lease and License, Annual Lease, &c., notified during 1897.

Land Board District.	Access.		Pending Sub-division.		Re-creation.		Roads.		Preservation and Growth of Timber.		Travelling Stock and Camping.		Water Supply.		Annual and Homestead Lease.		Annual Lease for Temporary Common.		Lease Generally.		Other Public Purposes.		Totals.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
Armidale.....	1	55	2	20	...	1	480	3	15,035	2	317	5	325	14	16,232	Acres.	
Bourke	8	7,531	7	1,438	3	2,098	10	79,186	3	19,455	4	24,951	9	617,509	44	752,158	
Dubbo	1	350	...	...	...	1	53	...	...	...	...	...	4	59,674	4	12,300	13	480,839	7	2,535	30	555,751
Forbes .....	...	...	...	...	2	20	3	140	...	6	2,885	...	2	79,600	3	4,486	3	982	6	37	25	88,150
Goulburn.....	...	...	...	...	...	...	1	25	1	170	...	5	929	2	802	3	2,724	12	1,821	24	6,471	
Grafton .....	...	...	...	...	...	...	...	...	...	...	...	1	640	1	320	11	3,193	21	169	34	4,322	
Hay	1	92	...	...	...	7	343	...	...	3	3,216	...	7	90,330	6	7,101	11	3,221	4	196	39	104,999
Maitland .....	...	...	...	...	6	40	...	...	...	3	4,240	1	40	...	...	1	898	5	2,998	16	8,216	
Moree	8	540	...	...	...	9	995	...	...	2	1,310	...	5	111,363	1	175	...	...	4	1,119	29	115,502
Orange .....	...	...	...	...	...	1	150	...	...	4	669	2	81	...	4	1,987	...	...	11	88	22	2,975
Sydney .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tamworth.....	2	12	...	...	...	...	...	...	...	3	1,920	1	300	1	900	...	4	33,914	...	...	11	37,046
Wagga Wagga	1	20	1	10	1	9	...	3	361	2	447	2	9,318	2	174	10	1,344	4	62	26	11,745	
	14	1,069	9	70	30	9,221	1	25	34	16,229	9	2,956	38	432,920	29	61,835	62	552,333	88	626,859	314	1,703,567

SCHEDULE LXXX.

RETURN of Reserves from Lease and License revoked during 1897.

Land Board District.	Access.		Mining.		Roads and Crossing.		Annual Lease or Occupation License for Temporary Common.		Suburban Settlement.		Travelling Stock and Camping.		Village.		Water Supply.		Conditional Lease and Annual Lease.		Other Public Purposes.		Totals.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
Armidale	1	88	14	26,982	1	100	1	180	6	1,320	23	28,670	Acres.
Bourke	1	3,000	...	...	1	60	19	16,048	5	308	6	4,401	3	7,618	4	1,934	...	11	49,284	50	82,653
Dubbo .....	...	...	...	...	1	1,200	6	7,330	...	...	1	640	...	...	...	2	1,950	2	5,070	12	16,190
Forbes .....	...	...	...	...	1	346	4	329	...	...	2	270	...	3	700	1	1	20	2,541	31	4,187
Goulburn.....	3	372	...	...	1	270	22	13,157	...	...	1	550	2	402	5	1,831	...	7	3,441	41	20,023
Grafton	1	33	...	...	...	...	4	2,651	...	...	3	111	...	2	460	1	2	11	1,282	22	4,539
Hay	2	580	...	...	2	112	5	2,361	1	378	1	177	...	2	333,311	1	1,931	18	95,161	32	434,011
Maitland .....	...	...	...	...	...	...	5	493	...	...	5	4,025	...	2	316	1	898	5	1,829	18	7,561
Moree	2	68	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1,280	4	1,348	
Orange	1	140	19	194	1	1,510	1	28	3	880	5	1,051	2	216	6	732	38	4,751
Sydney	1	1	1	1
Tamworth.....	...	...	...	...	...	...	8	1,668	...	...	5	2,365	...	3	1,600	...	...	6	10,562	22	16,195
Wagga Wagga	1	447	2	484	17	3,980	1	32	9	2,261	2	647	4	547	1	52	12	2,712	49	11,162
	11	4,640	9	2,560	123	75,193	8	2,228	35	14,928	10	9,547	30	341,750	10	5,230	107	175,215	343	631,291

SCHEDULE LXXXI.

RETURN of Dedications for Religious and Public Purposes during the year 1897.

Purpose of Dedication.	No. of Dedications.	Area dedicated.			Religious Purposes.	No. of Dedications.	Area dedicated.				
		a.	r.	p.			a.	r.	p.		
Public Recreation.....	46	1,197	0	3	Church of England Church and Par- sonage Sites. Roman Catholic Church and Pres- bytery Site. Roman Catholic School Site	2			3	2	0
Permanent Common	2	1,116	0	20		1			1	2	0
Experimental Farm	1	354	3	0		1					
Racecourses	3	242	0	0		1					
General Cemeteries	28	190	3	0 $\frac{3}{4}$							
Hospitals for the Insane	2	165	0	29							
Public School Sites.....	77	146	1	8 $\frac{1}{2}$							
Refuge in time of Flood	1	144	3	0							
Athletic Sports	2	24	3	12							
Show Ground.....	1	18	2	16							
Public Wharf.....	1	10	0	0							
Botanic Gardens.....	2	9	3	30							
Water Supply	2	6	0	20							
Experimental Orchard	1	5	0	0							
Mechanics' Institute Sites.....	8	4	0	1							
Drainage	1	1	3	31							
Railway Purposes	2	0	3	22							
Hospital Site	1	0	3	3 $\frac{1}{2}$							
Military Purposes	1	0	2	21 $\frac{1}{2}$							
Town Hall Site	1	0	1	30 $\frac{1}{2}$							
Fire Brigade Station Site.....	1	0	0	8							
Total.....	184	3,640	0	16 $\frac{3}{10}$	Total for Religious Purposes.....	4			5	2	0
					Total for General Purposes.....	184			3,640	0	16 $\frac{3}{10}$
					Grand Total	188			3,645	2	16 $\frac{3}{10}$

SCHEDULE LXXXII.

RETURN of Special Areas proclaimed during 1897.

Land Board District.	Land District.	Within Population Area or Suburban Lands.		Country Lands.		Land Board District.	Land District.	Within Population Area or Suburban Lands.		Country Lands.	
		No.	Area.	No.	Area.			No.	Area.	No.	Area.
			a. r. p.		a. r. p.				a. r. p.		a. r. p.
Armidale	Armidale			1	259 0 0	Hay	Balranald	2	6,367 2 0		
	Glen Innes ...	1	120 2 0				Deniliquin ...	1	1,671 1 0		
	Inverell	1	45 3 0				Hay	1	2,953 1 0		
Dubbo	Dubbo			6	524 0 0	Maitland ...	Cassilis	1	360 0 0		
	Warren	14	2,604 1 0				Gosford	2	496 2 12		
							Maitland	2	212 2 0		
Forbes	Condobolin ...			1	345 0 0	Moree	Bingara	1	278 0 10		
	Forbes			22	8,380 1 0		Moree		3	5,742 0 0	
	Grenfell			1	53 3 0		Warialda		3	2,862 1 0	
	Parkes	2	139 3 0	8	1,432 2 0	Orange	Bathurst		1	99 0 0	
Goulburn	Bega	2	77 2 0				Molong		9	1,884 3 8	
	Bombala			1	239 0 0	Sydney	Parramatta ...		4	168 0 30	
	Boorowa			5	810 2 0						
	Braidwood ...	5	28 1 20	1	331 1 0	Tamworth ...	Gunnedah ...	34	248 2 5	11	3,459 2 0
	Cooma	6	192 2 18	1	300 0 0		Murrurundi ...			2	88 2 0
	Moruya	1	164 0 0				Narrabri			10	4,365 2 0
	Moss Vale ...	7	2,256 0 0			Wagga Wagga	Cootamundra..			1	331 3 0
	Young			2	736 2 0		Corowa			4	1,195 1 30
Grafton	Casino			2	374 2 10		Narrandera ...			7	3,098 3 0
	Kempsey	3	430 1 14				Urana			4	1,403 3 0
	Lismore	5	580 2 16	4	693 1 0		Wagga Wagga	11	1,006 2 0	7	2,362 0 0
	Murwillumbah	1	154 1 20	1	302 0 0		Total	97	8,926 0 35	136	53,700 2 38
	Pt. Macquarie			1	293 1 0						

Number. Area.
a. r. p.
Grand Total 233 62,626 3 33

SCHEDULE LXXXIII.

RETURN of Homestead Selection Areas notified during 1897.

Land Board District.	Land District.	No. of Blocks.	Area.	Land Board District.	Land District.	No. of Blocks.	Area.
			a. r. p.				a. r. p.
Armidale	Armidale	31	8,185 1 0	Hay	Balranald	40	28,543 0 0
	Glen Innes	9	2,412 3 0		Balranald (South) ...	7	7,242 0 0
	Inverell	5	1,756 3 0		Deniliquin	41	12,500 3 0
	Tenterfield	4	3,027 3 0		Hay	22	22,796 3 0
Bourke	Cobar	48	4,917 2 34		Hillston	75	52,141 3 20
Dubbo	Dubbo	64	37,499 0 0		Wentworth	43	44,897 3 0
	Nyngan	1	826 3 0	Maitland	Cassilis	5	1,850 3 0
Forbes	Condobolin ...	2	976 3 0		Gosford	9	364 2 30
	Forbes	65	45,709 1 0		Maitland	3	177 1 0
	Parkes	48	41,686 2 0		Newcastle	1	40 1 0
Goulburn	Bombala	6	675 3 20	Moree	Paterson	3	129 2 0
	Boorowa	5	1,882 0 0		Scone	13	14,413 2 0
	Braidwood ...	2	1,714 2 22	Orange	Walgett	4	4,269 1 20
	Cooma	10	4,290 3 0		Bathurst	16	188 1 10
	Eden	9	996 1 20		Lithgow	2	1,285 0 0
	Goulburn	4	683 0 30		Molong	21	2,539 3 23
	Gunning	8	2,257 0 0		Mudgee	6	2,145 2 0
	Moruya	15	4,516 2 0	Sydney	Milton	10	2,000 0 0
	Queanbeyan ...	6	762 3 10		Nowra	5	82 1 0
	Yass	15	2,286 2 0		Penrith	74	3,716 0 0
	Young	1	301 2 0		Windsor	26	3,544 0 0
Grafton	Casino	3	1,475 2 0	Tamworth	Gunnedah	26	14,356 3 0
	Grafton	9	1,442 1 0		Narrabri	2	255 0 0
	Lismore	6	3,305 2 0		Tamworth	13	4,639 3 26
	Murwillumbah	8	1,093 2 0	Wagga Wagga ...	Albury	10	439 2 10
	Port Macquarie	16	4,993 0 0		Cootamundra	2	671 0 0
					Corowa	22	12,450 3 0
					Narrandera ...	14	14,024 1 0
					Urana	63	24,140 0 4
					Wagga Wagga ...	47	22,144 1 0
					Total	1,025	477,668 0 39

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SCHEDULE LXXXIV.
RETURN of Settlement Lease Areas notified during 1897.

Land Board District.	Land District.	No. of Farms.	Area.		Land Board District.	Land District.	No. of Farms.	Area.	
			a.	r.				a.	r.
Armidale.....	Armidale	6	24,764	3	Hay	Balranald	2	10,160	0
	Inverell	2	11,748	0		Hay	5	12,161	1
	Walcha	6	22,410	0		Hillston	2	5,120	0
Bourke	Bourke	3	11,295	0	Maitland	Scone	3	7,660	0
	Brewarrina East	2	4,808	0	Moree	Bingara	3	9,916	0
	Wilcannia	1	3,480	0		Moree.....	68	226,717	0
Dubbo	Coonamble	8	21,668	0		Walgett	10	28,586	0
	Dubbo	81	209,321	0		Warialda	8	24,097	1
	Nyngan	5	12,765	0	Orange	Mudgee	3	7,092	0
	Warren	22	43,836	0	Sydney	Windsor	3	6,730	0
Forbes	Barmedman	8	10,310	0	Tamworth	Coonabarrabran	5	21,237	1
	Condobolin	6	30,056	0		Gunnedah	21	74,547	0
	Forbes	6	10,118	0		Narrabri.....	25	65,739	0
	Parke	10	27,719	0		Tamworth	13	36,002	2
Goulburn	Eden	6	29,670	0	Wagga Wagga	Narrandera	3	8,302	0
	Goulburn	12	17,988	1		Totals	367	1,046,999	0
	Moss Vale	1	963	0					
	Yass	8	5,011	3					

SCHEDULE LXXXV.

RETURN showing number of Trespasses on Crown Lands reported during 1897, and action taken thereon under the provisions of the Crown Lands Acts.

Number of cases not disposed of at end of 1896	321
Number of cases reported by Crown Lands Bailiffs during 1897... ..	403
	724
Number of prosecutions in which convictions were obtained	14
Number of prosecutions in which cases were dismissed	4
Trespasses abated after notice, without legal proceedings by the Department	269
Cases of reported trespass in which, after investigation, it was found that no proceedings were necessary	37
Number of cases referred to other Departments for action	36
Cases in which action was suspended by the Department pending investigation of applications to be placed in legal occupation	19
Cases not disposed of at end of year	345
	724

SCHEDULE LXXXVI.

PART A.

RETURN showing Number, Area, and Rental of Pastoral Leases granted under the Church and School Lands Dedication Act of 1880, current on 31st December, 1897.

Land Board District.	Land District.	No.	Area.			Rent.		
			a.	r.	p.	£	s.	d.
Goulburn	Braidwood	54	16,964	2	36	637	0	2
Maitland.....	Dungog	48	74,244	0	0	587	19	9
	Maitland	4	174	0	20	6	16	0
	Stroud	65	88,066	3	0	1,230	5	3
	Singleton	7	1,436	1	31	43	7	0
Orange	Bathurst	52	27,406	3	23	549	19	4
	Carcoar	112	46,807	3	17	3,146	2	1
	Totals	342	254,600	3	7	6,199	9	7

PART B.

RETURN showing Number, Area, and Rental of Agricultural Leases granted under the Church and School Lands Dedication Act of 1880, current on 31st December, 1897.

Land Board District.	Land District.	No.	Area.			Rent.		
			a.	r.	p.	£	s.	d.
Goulburn	Braidwood	28	753	3	11	95	13	2
Maitland	Dungog	10	740	0	0	115	17	10
	Maitland	5	11	1	23	5	16	0
	Stroud	103	5,481	2	0	837	7	7
Metropolitan	Liverpool	3	139	0	0	13	18	0
	Picton	2	3	1	11	1	0	0
Orange	Bathurst	87	1,025	1	9	234	8	2
	Carcoar	96	2,382	0	33	446	5	3
	Totals	334	10,536	2	7	1,750	6	0

SCHEDULE LXXXVII.

PART A.

RETURN showing Mineral Leases granted under the Church and School Lands Mining Acts of 1888-9, current on 31st December, 1897, and of applications received, refused, leases granted, cancelled, and expired during 1897.

Land Board District and Land District.	Number of Applications.			Area of outstanding Applications.	Area applied for during 1897.	Total Area.	Applications declined or withdrawn.			Number not finally dealt with.	Leases granted during 1897.			Leases cancelled during 1897.			Leases expired during 1897.			Leases current on 31st December, 1897.		
	Outstanding from 1896.	Received during 1897.	Total.				Outstanding from 1896.	Received during 1897.	Total.		No.	Area.	Rent.	No.	Area.	Rent.	No.	Area.	Rent.	No.	Area.	Rent.
Maitland— Stroud .....	...	2	2	a. r. p.	a. r. p. 140 0 0	a. r. p. 140 0 0	...	...	...	1	1	80 0 0	20 0 0	...	.....	.....	...	.....	.....	4	212 3 1	80 1 2
Orange— Bathurst	1	4	5	25 0 0	140 0 0	165 0 0	...	...	...	...	5	165 0 0	41 5 0	1	20 0 0	5 0 0	...	.....	.....	6	185 0 0	46 5 0
Carcoar	13	1	14	880 0 0	25 0 0	905 0 0	...	...	...	1	13	880 0 0	210 0 0	...	.....	.....	...	.....	.....	15	951 1 0	227 17 6
Totals.....	14	7	21	905 0 0	305 0 0	1,210 0 0	...	...	...	2	19	1,125 0 0	271 5 0	1	20 0 0	5 0 0	...	.....	.....	25	1,349 0 1	334 3 8

PART B.

RETURN showing Gold Leases granted under the Church and School Lands Mining Acts of 1888-9, current on 31st December, 1897, and of applications received, refused, leases granted, cancelled, and expired during 1897.

Land Board District and Land District.	Number of Applications.			Area of outstanding Applications.	Area applied for during 1897.	Total Area.	Applications declined or withdrawn.			Number not finally dealt with.	Leases granted during 1897.			Leases cancelled during 1897.			Leases expired during 1897.			Leases current on 31st December, 1897.		
	Outstanding from 1896.	Received during 1897.	Total.				Outstanding from 1896.	Received during 1897.	Total.		No.	Area.	Rent.	No.	Area.	Rent.	No.	Area.	Rent.	No.	Area.	Rent.
Goulburn— Braidwood.....	1	...	1	a. r. p. 5 0 0	a. r. p.	a. r. p. 5 0 0	...	...	...	1	...	.....	.....	1	1 0 0	1 0 0	...	.....	.....	3	12 0 0	12 0 0
Maitland— Dungog .....	...	...	...	.....	.....	.....	...	...	...	...	...	.....	.....	1	5 0 0	5 0 0	...	.....	.....	2	4 0 0	4 0 0
Stroud	1	...	1	5 0 0	.....	5 0 0	...	...	...	...	1	5 0 0	5 0 0	3	5 0 0	5 0 0	...	.....	.....	4	28 0 0	28 0 0
Orange— Bathurst	3	5	8	22 0 0	30 0 0	52 0 0	...	...	...	2	6	35 0 0	35 0 0	1	4 0 0	4 0 0	1	5 0 0	5 0 0	13	75 0 0	75 0 0
Carcoar	11	10	21	55 0 0	103 3 26	158 3 26	...	...	...	8	13	109 3 30	110 0 0	14	105 3 26	106 0 0	...	.....	.....	83	524 3 33	583 16 0
Totals.....	16	15	31	87 0 0	133 3 26	220 3 26	11	20	149 3 30	150 0 0	20	120 3 26	121 0 0	1	5 0 0	5 0 0	95	636 3 33	702 16 0

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SCHEDULE LXXXVIII.

RETURN showing Number, Area, and Rental of Ninety-nine Years Leases granted prior to passing of Church and School Lands Dedication Act of 1880 current on 31st December, 1897.

Land Board District and Land District.	No.	Area.	Rent.
Metropolitan	41	a. r. p. 16 1 31	£ s. d. 494 0 0

RETURN showing Number, Period, Area, and Rental of Building Leases granted under the Church and School Lands Dedication Act of 1880, and current on 31st December, 1897.

Land Board District.	Land District.	No.	Period of Lease.	Area.	Rent.
Metropolitan .....	.....	1	years. 65	a. r. p. 0 0 36½	£ s. d. 43 0 0
Orange	Carcoar	2	50	10 3 21½	17 15 0
		3	.....	11 0 17¾	60 15 0

SCHEDULE LXXXIX.

PART A.

RETURN showing Pastoral Leases offered at Auction, Areas Leased, and Rental of Leases granted; also, Areas Leased by Tender, and Rental thereof.

Land Board District.	Land District.	No. of Lots offered.	Area.	No. of Lots leased.	Area.	Rental.
AUCTION.						
Goulburn	Braidwood	1	a. r. p. 1,000 0 0	.....	a. r. p.	£ s. d.
Maitland	Dungog	1	2,290 0 0	1	2,290 0 0	5 0 0
	Stroud	7	7,778 0 0	1	1,520 0 0	20 0 0
	Singleton	2	487 2 0	2	487 2 0	20 9 0
Orange	Bathurst	3	1,790 0 0	.....	.....	.....
	Carcoar	7	3,532 0 0	7	3,532 0 0	295 5 0
	Totals	21	9,876 2 0	11	6,309 2 0	340 14 0
TENDER.						
Goulburn	Braidwood	1	.....	1	1,000 0 0	15 0 0
Maitland	Stroud	1	.....	1	1,700 0 0	8 0 0
	Totals	2	.....	2	2,700 0 0	23 0 0

PART B.

RETURN showing Agricultural Leases offered at Auction, Areas Leased, and Rental of Leases granted; also, Areas Leased by Tender, and Rental thereof.

Land Board District.	Land District.	No. of Lots offered or leased.	Area.	No. of Lots leased.	Area.	Rental.
AUCTION.						
Goulburn	Braidwood	4	a. r. p. 43 1 30	.....	a. r. p.	£ s. d.
Maitland	Stroud	4	12 0 0	.....	.....	.....
Orange	Bathurst	38	129 2 5	2	43 0 0	5 0 0
	Carcoar	55	90 0 15	3	29 3 6	6 0 0
Metropolitan	Penrith	4	27 0 0	.....	.....	.....
	Totals	105	302 0 10	5	72 3 6	11 0 0
TENDER.						
Orange	Bathurst	2	.....	2	5 0 0	2 10 0
	Carcoar	1	.....	1	5 0 0	0 15 0
	Totals	3	.....	3	10 0 0	3 5 0

SCHEDULE XC.

RETURN showing Number, Area, Rental, and Period of Miscellaneous Holdings granted prior and subsequent to the passing of the Church and School Lands Dedication Act of 1880, current on 31st December, 1897.

Land Board District.	Land District.	No.	Period.	Area.	Rental.
Metropolitan .....	.....	1	Sufferance	a. r. p. 2 0 0	£ s. d. 5 0 0
Orange	Bathurst	1	Annual	1, 1 28	0 15 0
	Carcoar	1	Sufferance	25 0 0	5 0 0
	Total	3	.....	28 1 28	10 15 0

SCHEDULE XCI.

RETURN showing places of Meetings, length of Sittings, and number of Cases dealt with during 1897.

Land Board District.	Land District.	Place of Meeting.	Number of Courts held.	Duration of Sittings.	Number of Cases dealt with.	Number of Cases adjudged.		
Armidale.....	Armidale.....	Armidale	13	days. 18	{ 372	53		
		Bundarra	4	4	{ 50*	12*		
		Hillgrove	3	2½	{ 50	7		
		Waicha Road	4	4	{ 34	.....	
		Wollomombi	4	3½	{ 78	12		
		Glen Innes	Glen Innes	Wollomombi	4	3½	{ 71	7
				Glen Innes	8	9½	{ 179	13
		Inverell	Ashford.....	Glen Innes	8	9½	{ 13*	2*
				Inverell	5	4½	{ 84	10
				Bundarra	4	4	{ 50*	3*
				Inverell.....	10	15	{ 257	48
		Tenterfield	Wandsworth.....	Inverell.....	3	2	{ 41
				Tenterfield	9	11½	{ 203	48
				Wilson's Downfall	4	4	{ 37*	2*
		Walcha	Walcha	Wilson's Downfall	4	4	{ 64	3
Walcha	8			12	{ 169	13		
Bourke	Bourke	Walcha	8	12	{ 11*	.....	
		Bourke	5	49½	{ 347	25		
		Brewarrina.....	4	37	{ 292	5		
		Goodoga	1	17	{ 83	2		
		Cobar	4	10	{ 100	4		
		Wilcannia	2	17½	{ 141	2		
		Willyama	2	21	{ 169	5		
Dubbo	Coonamble	Willyama	2	21	{ 5	.....	
		Coonamble	4	18½	{ 222	18		
		Gilgandra.....	2	1½	{ 19	1		
		Dubbo	7	35	{ 803	16		
		Peak Hill	1	3	{ 18*	.....	
		Nyngan	4	11	{ 44	3		
		Warren	5	17½	{ 103	4		
		Warren	5	17½	{ 1*	.....	
Forbes.....	Barmedman and Barmedman East.	Warren	5	17½	{ 271	15		
		Wyalong	5	4½	{ 7*	.....	
		Barmedman	7	18	{ 50	5		
		Condobolin.....	8	23	{ 145	19		
		Forbes.....	7	22½	{ 146	29		
		Grenfell	6	9	{ 3*	.....	
		Parkes.....	7	21½	{ 267	16		
		Parkes.....	7	21½	{ 1*	.....	
Goulburn	Bega	Grenfell	6	9	{ 46	10		
		Bega	6	5½	{ 1*	.....	
		Cobargo	2	1½	{ 231	22		
		Bombala	10	7½	{ 8*	.....	
		Delegete	3	2	{ 65	6		
		Boorowa	6	5½	{ 3*	.....	
		Binalong	9	6½	{ 23	1		
		Braidwood	6	6	{ 96	7		
		Cooma.....	3	3	{ 6*	1*		
		Buckley's Crossing	3	2½	{ 51	4		
		Cooma	13	10	{ 80	5		
		Eden	3	2½	{ 8*	.....	
		Wyndham.....	2	1	{ 102	5		
		Crookwell .....	.....†	.....	{ 171	4
		Goulburn	12	10	{ 7*	.....	
		Taralga	4	4	{ 36	4		
		Gunning	4	3	{ 58	2		
		Crookwell.....	4	3	{ 216	12		
Bodalla	3	2½	{ 20*	4*				
Moruya	3	2½	{ 42	2				
Moss Vale	7	7	{ 29	.....			
Queanbeyan	8	8	{ 26	1				
Yass.....	5	3	{ 188	3				
Young.....	10	9	{ 13*	.....			
			{ 55	3				
			{ 50	2				
			{ 1*	.....			
			{ 23	1				
			{ 58	1				
			{ 48	1				
			{ 73	5				
			{ 8*	1*				
			{ 176	2				
			{ 13*	2*				
			{ 90	3				
			{ 1*	.....			
			{ 206	2				
			{ 7*	.....			

NOTE.—Cases marked thus (*) dealt with by Chairman, sitting alone.

† These cases were dealt with by the Gunning Land Board, the time occupied being included in the Meetings held at Crookwell in connection with the Land District of Gunning.

SCHEDULE XCI—continued.

Land Board District.	Land District.	Place of Meeting.	Number of Courts held.	Duration of Sittings.	Number of Cases dealt with.	Number of Cases adjourned.
Grafton	Bellingen	Bellingen	3	10	{ 110 10*	.....
	Casino	Casino	4	12	{ 196 3*	3
	Grafton	Grafton	7	15	{ 237 1*	2
	Kempsey	Kempsey	3	5	90	3
	Lismore	Ballina	1	1½	21	.....
		Lismore	3	11½	{ 137 5*	3
	Murwillumbah	Murwillumbah	3	5	{ 114 1*	.....
	Port Macquarie	Port Macquarie	3	4	59	.....
Hay	Balranald	Balranald	5	19	249	13
	Deniliquin	Deniliquin	7	24	301	20
	Hay	Hay	7	36½	292	20
	Hillston	Hillston	3	17½	148	8
		Lake Cudgellico	2	10	68	9
	Wentworth	Wentworth	4	16½	151	16
Maitland	Cassilis	Cassilis	4	5½	{ 79 4*	3
		Leadville	3	2½	46	5
		Merriwa	4	3	61	8
	Dungog	Dungog	2	1½	18	.....
	Gosford	Gosford	5	4½	{ 71 1*	.....
	Maitland	Maitland	4	2	28	3
	Muswellbrook	Muswellbrook	4	3½	78	2
	Newcastle	Newcastle	4	2½	13	.....
	Paterson	Paterson	5	3	{ 38 2*	8
	Raymond Terrace	Raymond Terrace	4	2½	13	.....
	Scone	Scone	4	6½	{ 108 11*	5
	Singleton	Singleton	4	3	53	3
	Stroud	Stroud	4	2½	{ 58 2*	.....
		Gloucester	4	3	56	1
	Taree	Wingham	2	1½	26	.....
		Taree	4	4	{ 68 1*	.....
	Wollombi	Wollombi	4	3	49	2
Moree	Moree	Moree	4	15½	{ 329 55* 100 11*	69 5* 7 1*
	Walgett North, &c.	Collarendabri	3	6	{ 197 18*	19 4*
	Walgett, &c.	Walgett	3	9	{ 140 14*	10 2*
	Bingara	Bingara	4	4½	{ 167 39*	24 3*
	Warialda	Warialda	4	6½	13	.....
	Moree and Warialda	Yetman	1	1	42	8
		Boggabilla	2	2½		
Orange	Bathurst	Bathurst	5	16	155	7
		Oberon	3	1½	43	8
	Carcoar	Carcoar	5	4½	65	2
		Trunkey	3	5	75	9
		Tuena	2	3½	69	15
	Cowra	Cowra	5	7	130	16
	Lithgow	Lithgow	4	4½	91	2
		Oberon	3	1½	48	8
	Molong	Molong	6	8½	77	12
		Canowindra	4	8½	114	12
		Cudal	3	5	64	11
		Cumnock	4	7	123	13
	Mudgee	Mudgee	7	15½	292	29
		Gulgong	1	2	15	1
	Orange	Orange	6	5	90	6
	Rylstone	Rylstone	6	8	215	13
	Wellington	Wellington	9	17	276	25

NOTE.—Cases marked thus* dealt with by Chairman, sitting alone.

SCHEDULE XCI—continued.

Land Board District.	Land District.	Place of Meeting.	Number of Courts held.	Duration of Sittings.	Number of Cases dealt with.	Number of Cases adjourned.	
Sydney	Campbelltown	Campbelltown	3	1½	53	2	
	Liverpool	Liverpool	2	1	7	.....
	Metropolitan	Sydney	6	17	79	1	
	Milton.....	Milton	3	3	36	2	
	Nowra.....	Nowra	4	4½	74	2	
	Parramatta.....	Parramatta	2	1½	9	1	
	Penrith	Penrith	5	7½	29	.....
	Picton.....	Picton	3†	4½	107	.....
	Windsor.....	Windsor	4	8	185	8	
	Wollongong	Brownsville	1	1	1	.....
Tamworth	Coonabarrabran.....	Coonabarrabran	4	10	{ 146 11*	9 1*	
	Gunnedah	Gunnedah.....	5	19½	{ 115 9*	16	
	Murrurundi	Boggabri	Boggabri	1	1	23
		Murrurundi	Murrurundi	3	2½	{ 49 8*	6
	Narrabri	Quirindi	Quirindi	4	5	72	4
		Narrabri	Narrabri	4	12½	{ 154 8*	11
	Tamworth	Wee Waa	Wee Waa	4	4½	45	1
		Pilliga	Pilliga	4	5½	74	5
		Tamworth.....	Tamworth.....	13	17½	{ 457 88*	40 2*
	Wagga Wagga	Manilla.....	Manilla.....	5	9	131	21
Barraba.....		Barraba.....	3	3	49	4	
Albury		Albury	Albury	2	7½	59	12
		Germanton	Germanton	2	13½	{ 100 1*	7
Cootamundra, Cootamundra Central.		Cootamundra	Cootamundra	3	9½	147	11
		Temora	Temora	3	16½	228	19
Corowa		Corowa	Corowa	3	7	46	{ 4 1*
		Mulwala	Mulwala	3	10	146	19
Gundagai		Gundagai	2	12½	{ 194 4*	15	
Narrandera.....		Narrandera	3	25	213	17	
Tumbarumba, Tumbarumba North.	Tumbarumba	2	7	{ 124 1*	13		
Tumut.....	Tumut	2	17½	247	14		
Urana	Urana	Urana	1	3½	26	8	
	Jerilderie	Jerilderie	1	8½	99	28	
Wagga Wagga	Narrandera	Narrandera	1	6½	10	2	
	Wagga Wagga.....	Wagga Wagga.....	3	37½	367	41	

SUMMARY.

Armidale Land Board District	79	94½	{ 1,672 161*	226 19*
Bourke	18	152	{ 1,132 11*	43
Dubbo	23	87½	{ 1,462 32*	57
Forbes	40	98½	{ 885 18*	101
Goulburn	126	105½	{ 1,962 87*	76 8*
Grafton	27	64	{ 964 20*	11
Hay	28	123½	1,209	86
Maitland	65	54	{ 863 21*	40
Moree	21	45	{ 988 137*	137 15*
Orange	76	120	1,942	189
Sydney	33	49½	580	16
Tamworth	50	90	{ 1,315 124*	117 3*
Wagga Wagga	31	182	{ 2,006 6*	210 1*
Total	617	1,266	17,597	1,355

NOTE.—Cases marked thus (*) dealt with by Chairman, sitting alone. † One meeting adjourned to Burragorang.

SCHEDULE XCII.

RETURN showing the number of Instructions issued to, and Reports received from, Inspectors regarding Conditional Purchases, Homestead Selections, Conditional Leases, Homestead Leases, Settlement Leases, and Miscellaneous Cases during the year 1897.

Land Board District and Land Districts.	Name of Inspector.	No. of Instructions issued to Inspectors to report on C.P's., C.L's., &c.						No. of C.P's., C.L's., &c., visited and reported on by Inspectors.					
		C.P's.	Home-stead Selec-tions.	C.L's.	H.L's.	Settle-ment Leases.	Misc. Cases.	C.P's.	Home-stead Selec-tions.	C.L's.	H.L's.	Settle-ment Leases.	Misc. Cases.
Armidale—													
Armidale	George Silcock	254	32	112	...	2	78	254	38	129	...	2	67
Do	John B. Wisdom	1	...	...	...	...	...	...	...	...	...	...	...
Glen Innes	do	182	3	34	...	...	12	194	10	48	...	...	10
Do	George Silcock .....	...	...	1	...	...	...	...	...	...	...	...	...
Inverell	John B. Wisdom	189	20	85	...	...	29	200	18	97	...	...	25
Do	George Silcock	1	...	...	...	...	...	...	...	...	...	...	...
Tenterfield	John B. Wisdom	171	28	42	...	...	28	154	26	36	...	...	21
Walcha	George Silcock	82	18	26	...	...	17	90	8	39	...	...	18
Totals		880	101	300	...	2	164	892	100	349	...	2	141
Bourke—													
Bourke	E. B. Barton	12	13	10	39	2	14	7	10	10	31	2	14
Brewarrina	do	2	11	1	37	9	32	1	12	1	36	8	11
Brewarrina East	do	26	5	22	3	6	4	11	6	16	3	6	...
Cobar	do .....	...	3	...	6	1	7	...	3	...	5	2	4
Bourke	Thomas Miller .....	...	...	4	12	1	1	1	...	...	8	1	...
Brewarrina	do .....	...	...	...	...	...	...	6	...	5	3	...	...
Brewarrina East	do .....	...	...	...	...	...	...	2	...	...	1	...	1
Cobar	do	3	16	3	27	...	25	3	16	3	25	...	5
Wilcannia	do	3	...	4	94	1	4	1	...	4	67	1	3
Willyama	do .....	...	...	...	129	...	10	...	...	...	64	...	2
Bourke	Licensed Surveyor D'apice .....	...	...	...	2	...	1	...	...	...	2	...	1
Cobar	do .....	...	...	...	...	...	18	1	...	...	...	...	7
Bourke	Licensed Surveyor Mullen .....	...	...	4	6	...	...	...	...	4	6	...	...
Brewarrina	do .....	...	...	...	1	...	...	...	...	...	1	...	...
Brewarrina East	do .....	...	...	1	...	...	...	...	...	1	...	...	...
Totals		46	48	49	356	20	116	33	47	44	252	20	48
Dubbo—													
Coonamble	E. H. Taylor	65	9	17	...	8	13	15	5	7	...	3	5
Warren	do	38	...	5	...	9	8	9	...	3	...	8	...
Dubbo	R. Sim, junr., succeeded by G. H. Langley.	159	49	35	...	5	22	126	41	52	...	22	11
Nyngan	do	100	13	10	...	15	8	47	7	15	...	10	5
Warren	do	73	...	1	...	24	4	30	...	7	...	10	...
Totals		435	71	68	...	61	55	227	53	84	...	53	21
Forbes—													
Barmedman, and Bar-medman East.	J. G. Postlethwaite	96	15	25	...	28	13	120	12	24	...	34	17
Condobolin	do	38	...	19	...	30	11	40	...	22	...	35	10
Grenfell	do	26	9	4	...	13	9	21	14	5	...	9	7
Condobolin	R. W. Gaden	63	...	20	...	...	6	62	...	20	...	...	3
Forbes	do	173	80	15	...	4	18	172	49	17	...	3	23
Parkes	do	117	48	12	...	9	21	96	27	9	...	11	20
Totals		513	152	95	...	84	78	511	102	97	...	92	80
Goulburn—													
Bega	J. S. Allan	65	...	4	...	...	1	55	...	4	...	...	1
Bombala	J. C. Martin	90	19	27	...	...	...	122	4	35	...	...	...
Borrova	H. E. Vindin	61	18	27	...	1	1	148	17	56	...	...	1
Braidwood	W. G. Evans	79	...	28	...	...	3	74	...	25	...	...	2
Cooma	J. C. Martin	280	13	90	...	...	6	243	9	66	...	...	4
Eden	J. S. Allan	40	13	7	...	...	2	43	14	10	...	...	1
Goulburn	G. W. West	137	14	73	...	...	4	157	12	76	...	...	3
Gunning	do	47	1	17	...	...	1	51	2	17	...	...	2
Moruya	H. E. Vindin	24	3	4	...	...	...	45	3	11	...	...	...
Moss Vale	J. S. Allan	81	6	16	...	...	5	83	4	14	...	...	5
Queanbeyan	G. W. West	72	...	31	...	...	...	72	...	30	...	...	...
Yass	W. G. Evans	110	4	37	...	...	2	171	1	53	...	...	1
Young	H. E. Vindin	39	2	12	...	...	...	91	...	33	...	...	...
Young	do	187	35	2	...	...	24	113	13	2	...	...	23
Totals		1,312	128	375	...	1	49	1,468	79	432	...	...	43

SCHEDULE XCII—continued.

Land Board District and Land Districts.	Name of Inspector.	No. of Instructions issued to Inspectors to report on C.P.'s, C.L.'s, &c.						No. of C.P.'s, C.L.'s, &c., visited and reported on by Inspectors.					
		C.P.'s.	Home-stead Selections.	C.L.'s.	H.L.'s.	Settle-ment Leases.	Misc. Cases.	C.P.'s.	Home-stead Selec-tions.	C.L.'s.	H.L.'s.	Settle-ment Leases.	Misc. Cases.
Grafton—													
Bellingen	E. J. Deverell	103	7	13	...	...	2	109	4	14	...	...	2
Casino	T. H. Wilshire	15	...	1	...	...	18	14	...	2	...	...	19
Do	W. P. Pope	50	...	13	...	...	19	61	...	15	...	...	21
Grafton	T. H. Wilshire	88	10	3	...	...	16	87	10	1	...	...	15
Do	E. J. Deverell	51	...	...	...	...	6	60	...	4	...	...	7
Kempsey	G. R. Brown	52	8	14	...	...	2	41	7	16	...	...	...
Do	E. J. Deverell	27	1	7	...	...	1	27	1	8	...	...	1
Do	T. H. Wilshire	1	...	...	...	...	...	1	...	...	...	...	...
Lismore	W. P. Pope	98	15	1	...	...	8	118	17	1	...	...	6
Murwillumbah	do	44	...	2	...	...	1	45	...	2	...	...	...
Port Macquarie	G. R. Brown	35	...	2	...	...	1	36	...	3	...	...	...
Totals		564	41	56	...	...	74	599	39	66	...	...	71
Hay—													
Balranald	W. Dargin .....	...	...	...	8	...	...	...	...	...	8	...	...
Do	G. G. Benson .....	...	...	...	15	...	3	...	...	...	5	...	...
Do South	G. S. M. Grant	11	6	1	...	...	...	...	...	...	...	...	...
Do do	W. Dargin	39	...	10	...	...	...	39	...	10	...	...	...
Do do	G. G. Benson	39	12	8	...	...	1	25	6	4	...	...	1
Deniliquin	do	9	5	...	...	...	...	8	5	...	...	...	...
Do	O. Wilshire	102	84	6	...	4	3	105	63	8	...	3	4
Hay	M. T. Day	77	32	11	...	12	2	95	34	13	...	9	3
Do	G. S. M. Grant	5	4	...	...	2	...	...	...	...	...	...	...
Hillston	M. T. Day	34	20	7	...	3	10	24	31	5	...	12	6
Do North	do .....	...	...	...	7	...	...	...	...	...	11	...	...
Wentworth	D. A. Morgan	12	2	...	25	...	6	11	...	...	22	...	6
Totals		328	165	43	55	21	25	307	139	40	46	24	20
Maitland—													
Cassilis	J. B. Combes	111	59	66	...	...	2	170	57	77	...	...	9
Dungog	J. Hardiman	11	5	3	...	...	...	9	6	1	...	...	...
Gosford	Jno. Martin	41	33	2	...	...	...	42	33	2	...	...	...
Maitland	do	12	11	...	...	...	...	18	16	...	...	...	6
Muswellbrook	J. B. Combes	36	1	12	...	...	4	49	...	14	...	...	6
Newcastle	Jno. Martin	6	7	2	...	...	...	8	9	3	...	...	...
Paterson	J. B. Combes	6	2	5	...	...	1	3	3	1	...	...	...
Do	J. Hardiman .....	...	...	1	...	...	...	...	...	...	...	...	...
Raymond Terrace	Jno. Martin	14	...	3	...	...	...	15	...	4	...	...	...
Scone	B. Lyne	30	...	14	...	...	4	30	...	14	...	...	4
Do	W. H. Tietkens	107	7	71	...	...	2	51	7	28	...	...	2
Singleton	J. B. Combes	29	30	6	...	...	3	36	31	8	...	...	3
Stroud	J. Hardiman	47	4	14	...	...	...	41	...	22	...	...	...
Taree	do	97	...	28	...	...	4	99	...	34	...	...	4
Wollombi	Jno. Martin	22	...	5	...	...	...	24	...	6	...	...	...
Totals		569	159	232	...	...	20	595	162	214	...	...	23
Moree—													
Bingara	E. C. McPherson	40	...	24	...	5	8	32	...	23	...	7	12
Moree	do	118	...	65	...	61	1	144	...	78	...	58	24
Do	W. H. Tietkens	24	...	22	...	2	...	30	...	26	...	...	1
Do	W. Webster	9	...	6	9	1	...	2	...	2	...	9	...
Walgett	W. H. Tietkens	65	9	46	...	31	2	66	3	36	...	28	3
Do	W. Webster	15	9	9	...	17	2	2	6	2	3	1	4
Walgett North	W. H. Tietkens .....	...	...	...	23	...	34	...	...	...	...	25	35
Do do	W. Webster .....	...	...	...	14	...	14	...	...	...	8	...	3
Warialda	E. C. McPherson	77	1	34	...	23	8	85	7	39	...	20	16
Totals		348	19	206	46	140	69	361	16	206	11	148	98

SCHEDULE XCII—continued.

Land Board District and Land Districts.	Name of Inspector.	No. of Instructions issued to Inspectors to report on C.P's., C.L's., &c.						No. of C.P's., C.L's., &c.; visited and reported on by Inspectors.					
		C.P's.	Home- stead Selec- tions.	C.L's.	H.L's.	Settle- ment Leases.	Misc. Cases.	C.P's.	Home- stead Selec- tions.	C.L's.	H.L's.	Settle- ment Leases.	Misc. Cases.
Orange—													
Bathurst	R. Deighton	12	...	...	...	...	...	12	...	...	...	...	...
Do	R. Sim .....	...	...	1	...	...	...	...	...	1	...	...	...
Do	J. S. O'Hara	88	...	27	...	...	17	64	...	25	...	...	15
Carcoar	R. Deighton	19	...	9	...	...	5	4	...	1	...	...	1
Do	J. S. O'Hara	69	...	29	...	...	35	66	...	26	...	...	23
Cowra	R. Deighton	116	15	9	...	...	5	107	...	8	...	...	4
Lithgow	J. S. O'Hara	87	2	27	...	...	3	100	...	40	...	...	5
Molong	R. Deighton	156	20	27	...	...	10	118	11	28	...	...	7
Mudgee	R. Sim	147	54	43	...	...	40	88	43	28	...	...	24
Do	G. H. Langley	42	14	18	...	...	6	36	11	11	...	...	7
Orange	R. Deighton	22	...	6	...	...	4	11	...	5	...	...	2
Rylstone	R. Sim	92	...	42	...	...	10	51	...	25	...	...	1
Do	G. H. Langley	27	...	15	...	...	2	25	...	8	...	...	1
Wellington	R. Sim	86	...	26	...	...	12	60	...	18	...	...	5
Do	G. H. Langley	39	...	13	...	...	8	37	...	12	...	...	8
Totals		1,002	105	292	...	...	157	779	65	236	...	...	103
Sydney—													
Campbelltown	H. O. Rotton	23	35	...	...	...	...	22	33	...	...	...	...
Kiama	do	1	...	...	...	...	...	2	...	...	...	...	...
Liverpool	J. B. Brown .....	...	12	...	...	...	...	...	10	...	...	...	...
Milton	H. O. Rotton	20	...	5	...	...	...	27	...	6	...	...	...
Nowra	do	30	3	7	...	...	1	38	3	5	...	...	1
Parramatta	J. B. Brown	13	...	...	...	...	...	15	...	...	...	...	...
Penrith	do	23	...	4	...	...	...	26	...	4	...	...	...
Pictou	do	81	2	31	...	...	...	105	1	31	...	...	...
Windsor	do	120	47	2	...	...	...	104	66	3	...	...	...
Totals		311	99	49	...	...	1	339	113	49	...	...	1
Tamworth—													
Coonabarrabran	Bishop Lyne	65	...	33	...	22	11	33	...	18	...	4	1
Do	William MacDonald	1	...	1	...	...	...	6	...	3	...	1	1
Gunnedah	Sir Wm. Broun, Bart. .....	...	...	...	...	...	...	1	...	1	...	...	...
Do	Bishop Lyne	12	...	8	...	...	...	8	6	2	...	...	...
Do	William MacDonald	104	67	50	...	9	...	53	49	20	...	5	3
Murrurundi	Sir Wm. Broun, Bart. .....	...	...	...	...	...	2	...	...	...	...	...	...
Do	William MacDonald	89	16	52	...	1	4	53	7	27	...	...	1
Narrabri	Sir William Broun, Bart.	9	...	...	...	...	...	9	...	...	...	...	...
Do	Bishop Lyne	84	1	23	...	43	8	69	...	29	...	21	7
Tamworth	Sir William Broun, Bart.	319	12	139	...	...	7	291	13	202	...	...	5
Do	William MacDonald	61	...	23	...	4	...	37	...	16	...	4	...
Totals		744	96	329	...	79	32	560	75	318	...	35	18
Wagga Wagga—													
Albury	S. Payten	17	16	5	...	...	...	6	32	...	...	...	...
Do	W. Webster	47	8	28	...	...	...	47	8	29	...	...	1
Cootamundra	F. B. Mulligan	160	90	32	...	...	4	164	91	26	...	...	...
Do Central	do	3	5	...	...	...	...	4	10	...	...	...	...
Corowa	S. Payten	30	47	...	...	...	3	41	77	...	...	...	2
Gundagai	F. B. Mulligan	47	...	36	...	...	12	49	...	41	...	...	14
Narrandera	J. G. Condell	47	77	8	...	...	7	49	85	10	...	...	7
Tumbarumba	W. J. Barnes	43	...	38	...	...	3	143	...	107	...	...	8
Do	S. Payten	18	...	15	...	...	...	18	...	15	...	...	...
Do North	W. J. Barnes	4	...	1	...	...	1	4	...	4	...	...	...
Tumut	do	42	...	45	...	...	14	52	...	47	...	...	12
Urana	S. Payten	49	72	4	...	7	3	58	86	3	...	7	3
Do	W. Webster	13	21	...	...	...	1	14	21	...	...	...	1
Wagga Wagga	W. J. Barnes	15	14	2	...	...	...	13	14	2	...	...	...
Do	J. G. Condell	88	117	3	...	...	2	76	117	3	...	...	4
Do	W. Webster	24	23	7	...	...	1	23	23	7	...	...	1
Totals		647	490	224	...	7	51	761	564	294	...	7	53
Grand Totals		7,699	1,674	2,318	457	415	891	7,432	1,554	2,429	309	381	725

SCHEDULE XCIII.

RETURN of Applications for Permission to Ringbark for the year 1897.

Land Board District.	Land District.	Applications made during 1897.						Applications made prior to 1897.			No. of applications outstanding at end of year.
		No. received.	Area applied for.	Fees lodged.	No. allowed.	Area allowed.	No. disallowed.	No. allowed.	Area allowed.	No. disallowed.	
			acres.	£ s. d.		acres.		acres.			
Armidale	Armidale	3	7,559	7 0 0	1	3,719				2	
	Glen Innes	1	329½	2 0 0	1	329½		2	3,200	2	
	Inverell	3	6,780	7 0 0	1	5,120				4	
	Tenterfield	6	6,700	12 0 0	2	2,040		3	5,120	1	
Bourke	Bourke	12	322,658½	50 0 0	11	280,658½		1	10,240	1	
	Brewarrina	10	88,450	33 0 0	9	78,450		7	78,660	1	
	Cobar	8	256,920	38 0 0	7	194,680				1	
Dubbo	Coonamble	3	5,660	8 0 0	3	5,580		1	2,820	3	
	Dubbo	5	26,130	17 0 0	2	9,460		5	10,766	4	
	Nyngan	3	110,388	14 0 0						1	
	Warren	1	4,000	3 0 0	1	4,000				1	
Forbes	Barmedman	5	12,425½	13 0 0	3	6,483	1	3	7,850	1	
	East	1	160	2 0 0						1	
	Condoblin	5	18,594	15 0 0	5	19,060		4	7,474	1	
	Forbes	1	2,971½	3 0 0				1	2,600	3	
	Grenfell	3	8,850	8 0 0						2	
	Parkes	8	33,130	23 0 0	8	35,840		4	14,070	1	
Goulburn	Boorowa	4	1,011	8 0 0	3	886	1	1	1,430	1	
	Goulburn	1	1,528½	2 0 0						1	
	Young	2	2,168½	4 0 0	2	2,168½				1	
Grafton	Casino	3	4,720	6 0 0	2	2,290		2	2,270	3	
	Grafton	4	6,760	8 0 0	1	1,920				1	
Hay	Balranald	2	6,500	6 0 0	1	2,500		3	30,695	1	
	Deniliquin	1	3,600	3 0 0						1	
	Hay	1	1,280	2 0 0						1	
	Hillston	1	560	2 0 0						1	
	Wentworth	4	6,734	8 0 0	4	6,734		1	1,920	1	
Maitland	Cassilis	1	1,730	2 0 0	1	1,730		3	2,652½	1	
	Muswellbrook	2	339	4 0 0	1	80		1	150	1	
	Paterson	1	1,920	2 0 0						1	
	Scone	4	1,920	8 0 0	1	460	1	1	670	2	
	Singleton	1	53½	2 0 0	1	53½				1	
	Taree	1	116	2 0 0	1	116				1	
Moree	Bingara	6	24,339	20 0 0	3	12,069		3	8,935	3	
	Moree	4	10,583	12 0 0			3	2	28,100	1	
	Walgett							1	2,997	1	
	Do North	18	197,345	62 0 0	5	88,525	4	3	32,925	9	
	Warialda	1	1,920	2 0 0						1	
Orange	Bathurst	1	967	2 0 0	1	967		4	5,728	2	
	Carcoar	8	13,570	18 0 0	6	11,850		3	4,650	1	
	Cowra	3	1,200	6 0 0	2	620				1	
	Lithgow	1	630	2 0 0	1	630				1	
	Molong	2	190	4 0 0	2	190				1	
	Mudgee	6	3,004½	12 0 0	3	2,032	1			2	
	Rylstone	2	1,490	4 0 0	1	850		1	320	1	
	Wellington	3	4,187	7 0 0	2	747		3	2,650	1	
Tamworth	Coonabarrabran	1	1,920	2 0 0						2	
	Murrurundi	3	2,578½	6 0 0	2	1,298½	1			1	
	Narrabri							4	7,850	1	
	Tamworth	4	2,760	8 0 0				3	2,782	1	
Wagga Wagga	Albury									1	
	Cootamundra									1	
	Gundagai							1	350	1	
	Tumut	2	650	4 0 0	1	400				1	
	Urana									1	
	Wagga Wagga	3	2,400	6 0 0						2	
	Totals	179	1,198,379½	501 0 0	101	784,586½	17	71	279,874½	12	63

SCHEDULE XCIV.

COMPARATIVE Statement of Letters Registered at Head Office during the years 1896 and 1897.

Branch.	Documents Registered.		Increase.	Decrease.
	1896.	1897.		
Alienation	14,364	16,571	2,207	
Conditional sales	40,697	35,429		5,268
Conditional leases	7,033	5,566		1,467
Ministerial	17,400	15,602		1,798
Miscellaneous	16,440	16,196		244
Miscellaneous leases	14,350	15,900	1,550	
Occupation	13,164	14,159	995	
Rabbit and Labour Settlement	1,590	1,163		427
Norfolk Island Papers		650	650	
Forest Branch		6,881	6,881	
	125,038	128,117	12,283	9,204
			Net Increase, 3,079.	

SCHEDULE XCV.

COMPARATIVE Statement of Manuscript Letters, Formal Documents, &c., despatched from Head Office during years 1896 and 1897.

Year.	Manuscript Letters.	Formal Documents, including Printed Letters, Schedules, Executive Council Minutes, Gazette Notices, Books of Reference to Benches of Magistrates, and Plans of Roads to same, &c		Parcels.	Totals.
		Printed Letters, Executive Council Minutes, &c.	Schedules.		
1896	24,981	113,252	795	22,133	161,161
1897	30,118	117,947	856	22,410	171,331
Increase	5,137	4,695	61	277	10,170
Decrease .....	.....	.....	.....	.....	.....

Telegrams sent during 1896	2,976
Telegrams sent during 1897	2,090
Decrease	886
Circulars sent during 1896	163
Circulars sent during 1897... ..	94
Decrease	69

SCHEDULE XCVI.

SHOWING number of Letters and Documents received at and despatched from the Head Offices of the Local Land Boards during the year ended 31st December, 1897.

Land Board District.	Received.	Despatched.			Total No Despatched.
	No of Letters and Circulars	Manuscript Letters	Formal Documents (Partly printed and partly manuscript)	Parcels (Including Maps, &c)	
Armidale	10,087	892	3,786	173	4,851
Bourke	6,695	1,531	5,760	357	7,648
Dubbo	7,997	882	8,034	143	9,059
Forbes	6,668	1,031	5,750	349	7,130
Goulburn	12,733	1,830	10,525	368	12,723
Grafton	6,875	1,501	3,690	519	5,710
Hay	6,601	1,089	4,197	436	5,722
Maitland	8,574	1,173	7,454	652	9,279
Moree	6,208	680	4,004	325	5,009
Orange	11,577	996	13,472	395	14,863
Sydney	3,400	885	2,453	.....	3,338
Tamworth	10,261	2,906	9,422	1,034	13,362
Wagga Wagga	14,328	2,212	10,380	1,444	14,036
Totals	112,004	17,608	88,927	6,195	112,730

SCHEDULE XCVII.

APPROXIMATE Statement of Land Alienated and Unalienated in the Colony on the 31st December, 1897.*

	acres.
1. Area alienated in all forms prior to 1862	7,146,579
2. Area alienated by auction sale and after auction selection (including sales under deferred payments) from 1st January, 1862, to 31st December, 1897	11,050,273
3. Area alienated by improvement and special purchase during the same period	2,799,648
4. Area alienated by conditional purchase during same period for which deeds have issued	2,882,662
5. Area alienated under Volunteer Land Regulations of 1867, to 31st December, 1897, for which deeds have issued	168,145
6. Area alienated by all other forms during same period, including lands dedicated	788,892
Area alienated up to 31st December, 1897.	24,836,199
7. Estimated area of unalienated land in the Colony on the 31st December, 1897	173,801,881
*Estimated area of Colony, 310,372 square miles; or, ..	198,638,080
8. Area under incomplete conditional purchase up to 31st December, 1897, exclusive of forfeitures, lapsings, cancellations, disallowances, and voidances	20,240,735
9. Area comprised in homestead selections confirmed prior to 31st December, 1897, exclusive of forfeitures	620,414
10. Area converted into homestead selections under section 20, Crown Lands Act of 1895.....	22,437

* Includes Lord Howe Island, 50 square miles.

RETURN showing Areas under Several Classifications measured by Licensed

Land Board District.	CLASS OF													
	Condi-tional Purchases.	Condi-tional Leases.	Anticipa-tion.	Special Areas.	Country Auction.	Suburban Auction.	Town Auction.	Home-stead Leases.	Special Leases.	Home-stead Selections.	Special Purchases, &c.	Reserves.	School Sites.	Settle-ment Leases.
Armidale	No. 105 Area ... 9,309ac. Cost ... £656 15s. Average 1s. 5d.	84 20,274ac. £782 5s. 9d.	.....	6 246ac. £32 5s. 2s. 7½d.	26 1,358ac. £140 5s. 2s. 0½d.	.....	29 10ac. £21 42s.	.....	8 422ac. £45 10s. 2s. 1½d.	27 16,407ac. £361 10s. 5½d.	.....	6 375ac. £33 1s 9½d.	1 1½ac. £2 10s. 33s. 4d.	9 32,584ac. £149 1d.
Bourke	No. 2 Area ... 595ac. Cost ... £15 10s. Average 6½d.	1 1,472ac. £15 2½d.	.....	.....	93 51ac. £68 10s. 26s. 10d.	2 3ac. £3 10s. 23s. 4d.	.....	12 £8,657ac. £210 10s. ½d.	5 395ac. £22 10s. 1s. 1½d.	1 80ac. £3 2s.	.....	3 134ac. £13 5s. 1s. 11½d.	2 10ac. £4 5s. 8s. 6d.	.....
Dubbo	No. 42 Area ... 6,603ac. Cost ... £274 Average 9½d.	28 12,740ac. £296 6s. 5½d.	.....	.....	12 1,206ac. £66 1s. 1d.	88 103ac. £83 5s. 16s. 2d.	187 60ac. £124 41s. 8d.	.....	2 6ac. £6 5s. 20s. 10d.	88 63,866ac. £711 15s. 2½d.	.....	4 1,560ac. £14 2½d.	2 6ac. £5 5s. 17s. 6d.	194 324,372ac. £2,488 10s. 1½d.
Forbes	No. 29 Area ... 7,264ac. Cost ... £189 Average 6½d.	8 2,159ac. £52 10s. 5½d.	.....	7 486ac. £36 15s. 1s. 6d.	32 9,422ac. £251 5s. 6½d.	44 71ac. £53 15s. 15s. 1½d.	76 35½ac. £59 10s. 33s. 6½d.	.....	1 90ac. £73 5s. 1s. 1d.	76 51,893ac. £773 5s. 3½d.	.....	4 664ac. £23 5s. 8½d.	3 6ac. £6 18s. 5½d.	113 149,120ac. £2,226 10s. 3½d.
Goulburn	No. 22 Area ... 1,262ac. Cost ... £166 Average 2s. 7½d.	15 2,681ac. £140 10s. 1s. 0½d.	.....	.....	5 153ac. £44 10s. 5s. 9½d.	1 11ac. £4 15s. 8s. 7½d.	.....	.....	1 40ac. £7 3s. 6d.	9 1,007ac. £109 5s. 2s. 2d.	.....	2 27ac. £7 15 5s. 8½d.	6 30ac. £21 15s. 14s. 6d.	.....
Grafton	No. 40 Area ... 2,764ac. Cost ... £403 10s. Average 2s. 11d.	14 1,981ac. £151 1s. 6½d.	.....	53 661ac. £175 10s. 5s. 3½d.	18 326ac. £74 15s. 4s. 7d.	17 231ac. £31 15s. 27s. 0½d.	86 32ac. £71 15s. 44s. 10½d.	.....	29 1,612ac. £163 5s. 2s. 1½d.	23 3,761ac. £12 5s. 1s. 4½d.	4 30ac. £12 5s. 8s. 2d.	.....	11 700ac. £95 2s. 8½d.	13 47½ac. £51 10s. 21s. 8½d.
Hay	No. 7 Area ... 1,166ac. Cost ... £42 5s. Average 8½d.	4 2,679ac. £49 5s. 4½d.	.....	.....	2 182ac. £14 1s. 8½d.	127 173ac. £196 5s. 22s. 8½d.	.....	29 207,919ac. £881 15s. 1d.	.....	137 77,174ac. £1,198 15s. 3½d.	1 5ac. £2 10s. 10s.	.....	8 727ac. £40 10s. 1s. 1½d.	8 5,433ac. £105 4½d.
Maitland	No. 39 Area ... 4,266ac. Cost ... £320 5s. Average 1s. 6d.	19 6,839ac. £230 10s. 8d.	.....	.....	20 1,336ac. £131 5s. 1s. 11½d.	18 142½ac. £48 6s. 9d.	41 19½ac. £36 5s. 37s. 2½d.	.....	5 647ac. £28 10s. 10½d.	38 10,119ac. £261 5s. 6½d.	.....	10 354ac. £33 10s. 1s. 10½d.	8 32ac. £26 10s. 16s. 6½d.	.....
Moree	No. 43 Area ... 13,487ac. Cost ... £340 15s. Average 6d.	38 23,878ac. £453 10s. 4½d.	.....	35 5,387ac. £202 15s. 9d.	7 2,350ac. £70 7½d.	12 16ac. £25 31s. 3d.	80 20ac. £21 10s. 21s. 6d.	.....	29 628ac. £36 15s. 2s. 9½d.	4 5,120ac. £65 10s. 3d.	.....	14 15,698ac. £140 10s. 2½d.	.....	131 439,501ac. £3,262 15s. 1½d.
Orange	No. 140 Area ... 16,818ac. Cost ... £1,067 8s. Average 1s. 3½d.	84 24,895ac. £868 12s. 8½d.	.....	1 122ac. £7 15s. 1s. 3½d.	74 941ac. £364 13s. 7s. 9d.	52 123ac. £99 12s. 16s. 2½d.	70 18½ac. £57 1s. 61s. 3½d.	.....	7 240ac. £28 13s. 2s. 4½d.	14 7,604ac. £188 6s. 5½d.	1 1ac. £1 17s. 37s.	.....	2 5ac. £3 15s. 15s.	17 62½ac. £51 4s. 16s. 4½d.
Sydney	No. 23 Area ... 1,047ac. Cost ... £42 18s. Average 4s. 7½d.	4 430ac. £57 15s. 2s. 8½d.	.....	.....	5 34ac. £31 18s. 2½d.	.....	159 48ac. £136 15s. 56s 8d.	.....	.....	100 10,731ac. £713 5s. 1s. 4d.	19 3ac. £92 £30/13¼	.....	4 362ac. £34 5s. 1s. 10½d.	3 8,236ac. £72 5s. 2d.
Tamworth	No. 85 Area ... 15,553ac. Cost ... £707 2s. Average 10½d.	68 29,457ac. £326 2s. 6½d.	.....	1 130ac. £6 2s. 11½d.	32 1,388ac. £86 6s. 1s. 2½d.	.....	55 20½ac. £33 18s. 33s. 0½d.	.....	9 1,086ac. £74 8s. 1s. 4½d.	60 14,535ac. £304 7s. 5d.	.....	15 229ac. £43 18s. 4s. 3½d.	2 6ac. £4 17s. 16s. 2d.	77 211,345ac. £1,223 2s. 1½d.
Wagga Wagga	No. 18 Area ... 3,450ac. Cost ... £77 15s. Average 5½d.	7 1,133ac. £66 11s. 1s. 2d.	.....	24 1,622ac. £75/17/6 11½d.	15 1,883ac. £116/11/8 1s. 2½d.	120 367ac. £131 15s. 7s. 2½d.	786 359ac. £446 5s. 24s. 10½d.	.....	26 471ac. £98 6s. 4s. 2d.	126 61,754ac. £919 5s. 3½d.	2 18½ac. £3/16/4 4s. 1½d.	.....	19 2,216ac. £94 3s. 10½d.	15 59ac. £40 13s. 6½d.
Total No.	595	374	.....	183	341	481	1,569	41	122	703	27	102	69	577
Total Area	83,584ac.	130,618ac.	.....	8,654ac.	20,650ac.	1,033ac.	623ac.	296,576ac.	5,637ac.	324,051ac.	58ac.	23,051ac.	261ac.	1,245,219ac.
Total Cost	£4,523 3s.	£3,989 15s.	.....	£536/19/6	£1,459/0/8	£677 12s.	£1,007 19s.	£1,092 5s.	£572 2s.	£5,876 3s.	£112/8/4	£581 16s.	£213 16s.	£10,171 2s
Average per Acre	1s. 0½d.	7½d.	.....	1s. 2½d.	1s. 4½d.	13s. 1½d.	£1/12/4½d.	½d.	2s. 0½d.	4½d.	£1/18,9½	6d.	16s. 4½d.	1½d.

XCVIII.

Surveyors on Fees during the year 1897.

MEASUREMENT.

Miscellaneous.	Exchange Areas.	Improvement Leases.	Clearing Scrub Lands.	Scrub Leases.	Total for 1897.	Total for 1896.	—	Roads, Wm. IV., No. 11.	Alignments.	Feature, Geographical.	Boundaries, Pastoral Holdings.	Miscellaneous.	Total for 1897.	Total for 1896.
	24 3,788ac. £200 1s 0½d.				325 84,775ac £2,424 6½d.	348 117,161ac £2,683/17/9 5½d.	No. Length Cost Average	9 1,048chs. £73 5s 1s. 4½d.				5 2,380chs. £80 10s. 8½d.	14 3,428chs. £153 15s. 10½d.	9 2,088chs. £125/17/8 1s. 2¾d.
55 54ac. £85 10s. 31s. 8d.	5 3,273 ac. £65 4½d.				181 94,724ac. £511 10s. 1½d.	201 918,847ac £2654/12/10 ½d.	No. Length Cost Average	2 702chs. £45 5s 1s. 3¾d.				2 702chs. £45 5s. 1s. 3¾d.	12 13,516chs. £452/6/5 8d.	
8 32ac. £16 15s. 10s. 6d.	38 31,953ac. £484 3½d.		54 272,564ac. £399 5s. ½d.		797 715,101ac. £4,969 5s. 1½d.	862 810,023ac. £4,845/9/9 1½d.	No. Length Cost Average	12 6,937chs. £422 5s 1s 2¾d.				3 334chs. £15 10½d.	15 7,271chs. £437 5s. 1s. 2¾d.	15 3,909chs. £281/13/11 1s. 5½d.
15 720ac. £353/9 11½d.	83 21,795ac. £613 15s. 6½d.	5 36,541ac £147 5s. ½d			496 280,270ac £4,472/18/9 3½d.	433 135,788ac £2,135/6/1 3½d.	No. Length Cost Average	13 5,472chs £303 10s 1s. 1½d.				2 273chs. £10 15s. 9½d.	15 5,745chs. £314 5s. 1s. 1½d.	5 993chs. £44/13/7 10½d.
1 10ac. £6 12s.					62 5,321ac. £507 10s. 1s 11½d.	182 19,113ac £1,381 6/8 1s 5½d	No. Length Cost Average	7 517chs. £65 5s. 2s 6½d.					7 517chs. £65 5s. 2s. 6½d.	13 1,802chs. £98/1/9 1s. 9½d.
16 205ac. £51 10s. 5s. 0½d.	12 6,185ac. £204 10s. 7¾d.				341 18,323ac. £1,754 1s 10½d.	206 9,273ac £1072 12/10 2s 3¾d.	No. Length Cost Average	18 1,898chs. £221 10s. 2s 4d.					18 1,898chs. £221 10s. 2s. 4d.	41 6,378chs. £643/6/1 2s. 0½d.
1 ¼ac. £4 5s. £17	42 71,151ac. £902 10s. 3d.	2 39,821ac £102 ½d.			368 406,448ac. £3,539 2d.	515 47,342ac £967/6/1 4½d.	No. Length Cost Average	13 4,087chs £200 15s. 11½d.		1 2,514chs. £76 10s. 7½d.		1 181chs. £9 11½d.	15 6,782chs. £286 5s. 10½d.	13 21,405chs. £451/2/6 5d.
16 115¼ac. £56 5s. 9s. 9d.	3 472ac. £33 10s 1s. 6½d.				217 24,303ac £1,205 15s. 11½d.	325 41,976ac £1,368/3/3 10½d.	No. Length Cost Average	15 2,458chs £184/16/6 1s 6d		1 1,000chs. £41 5s. 9½d		1 333chs. £10 15s. 7½d.	17 3,791chs. £236/16/6 1s. 3d.	16 2,277chs. £128 9s. 1s. 1½d.
5 572ac. £30 10s. 1s. 0½d.	104 49,007ac. £1,010 8s. 4½d.	16 114,238ac. £363 10s ½d			518 670,352ac £6,093 8s. 2½d.	494 637,968ac £6343/19 11 2½d.	No. Length Cost Average	3 1,046chs. £37 5s. 8½d.			1 359chs. £11 5s. 7½d.	1 123chs. £10 5s. 1s. 8d.	5 1,528chs. £58 15s. 9½d.	7 1,019chs. £49/12/8 11½d.
56 534ac. £196 11s. 7s. 4½d.					548 104,722ac £3,439 14s 7½d.	219 38,340ac £1,281/6/11 9½d.	No. Length Cost Average	5 255chs. £20 12s 1s 7¾d.		6 2,380chs £125 17s. 1s. 0½d.		6 713chs. £37 1s. 0½d.	17 3,348chs. £183 9s. 1s. 1½d.	6 587chs. £38/16/1 1s. 3¾d.
2 1ac. £6 15s. 135s.		4 43,493ac. £258 15s 1½d.			323 64,385ac £1,645 13s. 6½d.	498 15,220ac £1,838 9/1 2s. 5½d.	No. Length Cost Average	9 664chs. £65 1s 11½d.	7 1,380chs. £233 3s. 4½d.	3 4,949chs. £258 15s 1 0½d.		4 1,504chs. £96 5s. 1s. 3¾d.	23 8,497chs. £653 1s. 6½d.	52 7,013chs. £817/1/2 2s. 3½d.
8 69¼ac. £39 10s. 1s. 1½d.	77 26,835ac. £667 6s. 6d.				489 301,278ac £4,022 1s 3½d.	418 204,969ac £3,284/19/8 3½d.	No. Length Cost Average	9 1,499chs £81 13s 1s 1d		2 2,330chs. £75 7½d.		1 240chs. £9 9d.	12 4,069chs. £165 13s. 9½d.	10 2,614chs. £195 ¾/4 1s. 5½d.
24 370ac. £104 3s 5s 7½d	57 26,858ac. £567 3s. 5d.	3 6,737 ac £52 10s 1d			1,254 123,167ac £2,933 14/6 5½d.	648 198,994ac £3,804/11/9 4½d	No. Length Cost Average	6 569chs £40 14s 1s 5½d					6 569chs. £40 14s. 1s. 5½d.	8 1,949chs. £127/9/11 1s. 3½d.
207 3,303ac. £632/17/9 3s. 9½d.	442 240,875ac. £4,714 15s. 4½d.	33 241,312ac. £957 10s. ¾d.	54 272,564ac £399 5s. ½d.		5,969 2,898,074ac £37,518/9/3 3½d.	5,349 3,195,030ac £34209/19/2 2½d	Total No Total Length Total Cost Average per cham	121 27,152chs £1,761/15,6 1s. 3½d.	7 1,380chs £233 3s. 4½d.	13 13,173chs. £577 7s. 10½d	1 359chs. £11 5s. 7½d.	24 6,081chs. £278 10s. 11d.	166 48,145chs. £2,861/17/6 1s. 2½d.	207 65,650chs. £3,453/14/1 1s. 0½d.

SCHEDULE XCIX.

STATEMENT showing revenue received by the Forest Branch for the half year ended 31st December, 1897.

Particulars.	Amount.	Totals.
	£ s. d.	£ s. d.
Royalty—"Class C," at per 100 sup. feet—2,000,000 ft.	1,040 1 7	
„ Under tree permit at per tree	103 8 6	
„ Miscellaneous	16 14 0	1,160 4 1
Licenses—Forest Reserves—		
„ Class C, with royalty	149 10 0	
„ Classes A and B, without royalty	405 0 0	
„ Wattle Bark	51 0 0	
„ Saw-mill sites	31 0 0	636 10 0
Licenses—Crown Lands—		
„ Cedar, 333 issued	185 10 0	
„ Quarry, 105 issued	75 0 0	
„ Wood-cutters, 3,700 issued	920 0 0	
„ Fuel, 1,510 issued	215 0 0	1,395 10 0
Miscellaneous Revenue—		
Rent of prickly-pear leases	219 13 9	
Sales of confiscated material	250 12 0	
Penalties	84 2 6	554 8 3
Total revenue for the half year ending 31st December, 1897		3,746 12 4

Report of the Acting Chief Surveyor to The Under Secretary for Lands.

Sir,

Department of Lands, Sydney, 5 February, 1898.

I do myself the honor to submit for your information the annual report of the services carried out in this branch of the Department, being for the year 1897.

Permanent field staff.

The field staff permanently attached to the Department comprised 64 officers with the following classification, namely :—13 district surveyors, 36 salaried surveyors, 9 assistant surveyors, and 4 field assistants.

Promotions.

Mr. Assistant Surveyor A. E. Roberts, who had been for some time carrying out the duties of a staff surveyor, was promoted to the position of a surveyor on the permanent establishment.

Examination and appointment.

At the instance of the Public Service Board an examination was held to determine the qualifications of candidates for a vacancy on the permanent staff of this Department for an assistant surveyor. Messrs. E. Twynam, Chief Surveyor, T. F. Furber, Dr. R. N. Morris, H. R. Carleton, and J. J. K. Bradfield were constituted the Board for the purpose. Mr. H. B. Mathews, one of the junior licensed surveyors, was found to be qualified for the position and received the appointment. It may be mentioned that the same Board was charged with the examination of candidates for positions as engineering draftsmen and assistant surveyors in the Department of Public Works.

Resignations.

There were three resignations from the permanent field staff, namely, two assistant surveyors and one field assistant.

Contract surveyors.

Seventy-nine surveyors were engaged on contract surveys; their total earnings amounted to £41,305.

Inspection of contract surveys.

Forty-eight reports on examination of surveys carried out by licensed surveyors on fees were received. In seven cases only were the surveys reported as not being up to the standard required by the survey regulations of the Department.

Licenses under the Real Property Act.

Two meetings of the Board for granting annual licenses under the Real Property Act were held, at which ninety-one renewals were approved of. The annual fee of £1 1s. was received for each license, except in three cases in which, owing to the special circumstances under which they were issued, the fee was not demanded.

Investigations for the Registrar-General.

Thirty-two cases relating to applications for certificates of title under the Real Property Act, and eleven cases relating to alleged errors in surveys were referred by the Registrar-General to this Department for report. After investigation in this office the Registrar-General was informed of the result in each case.

BOARD OF EXAMINERS OF CANDIDATES FOR LICENSE TO SURVEY CROWN LANDS.

As in the previous year, the five colonies, Queensland, New South Wales, Victoria, South Australia, and West Australia, have co-operated in respect to examinations for surveyors, simultaneous and identical examinations being now held where needed throughout the colonies named. As in the previous year Mr. T. F. Furber, F.R.A.S., acted as the representative of this Board in the preparation of papers for examinations in March and September. The March examination was not, however, held in this colony, there not being a sufficient number of candidates to warrant it.

At the examination held in Sydney in September six candidates presented themselves, of whom the following were found qualified, viz. :—

Francis Edmund Wickham.
Frank Chapman.

TRIGONOMETRICAL

TRIGONOMETRICAL SURVEY.

Mr. J. Brooks, F.R.A.S., F.R.G.S., Surveyor-in-charge of Field Operations, reports that the weather during the past year was on the whole fairly satisfactory for horizontal observations. Mr. Brooks' service.

The main triangulation has been extended southerly along the coast to Wolumla Station, thence westerly to Coolangubra (new) and Bukalong Stations, and northerly to Glenbog Station. The 18-in. altazimuth was used at those stations and also at Cooma Station. Astronomical observations were made for determining latitude and azimuth at Wolumla, Glenbog, and Cooma Stations; 2,181 horizontal angles were measured, 184 stars were observed for latitude, 184 stars for azimuth; and 23 stars for time.

The 10-inch theodolite was used for second-class work at Cathcart, Stannard, Wangrah, and Cosgrove Stations, and 1,167 horizontal and 648 vertical angles were measured. Magnetic observations were also made at those stations.

Reserves for protection of stations were measured at Bimmil, Wolumla, Cathcart, Glenbog, and Stannard.

A series of check levels was run between Bimmil Station and a bench mark on the trial survey for a railway line between Bega and Eden.

Mr. Surveyor Gregson, using a 10-inch theodolite, carried out observations at Wadbilliga, Bemboka, Burragate, Imlay, Skelton, Mowwarry, and Nagha Stations; 1,942 horizontal angles and 491 vertical angles were measured. Magnetic observations were also made at these stations. Mr. Gregson's service.

Reserves for the protection of fifteen stations were measured and marked, and seven connection surveys were carried out by Mr. Gregson.

Mr. Healy, Piling Overseer, piled and cleared twenty new stations in Counties of Buccleuch, Harden, and Wynyard, measuring reserves and connections where necessary. Preliminary work.

Mr. Gordon, Piling Overseer, formed twenty-five new stations in Counties Cowley, Buccleuch, Wallace, and Wellesley, measuring the necessary reserves and connections.

TRIGONOMETRICAL COMPUTING BRANCH.

Field books of angles at the following Stations have been received, viz.:—Wolumla, Coolangubra (new), Bukalong, Glenbog, and Cooma, observed at with 18-inch theodolite, and at Umaralla, Wadbilliga, Bemboka, Burragate, Imlay, Skelton, Mowwarry, Cathcart, Stannard, Wangrah, Nagha, and Cosgrove measured with 10-inch theodolite. The details of these observations have been reduced and entered in the record books, and the whole of the computations were carried to as forward a state as was practicable, reduction in some cases being made in advance of completion of the field work, demand for provisional information being anticipated.

The computations connected with the triangulation of the County of St. Vincent have been entered in the records in duplicate. The triangulation of the County of Dampier has been calculated, and the details have been similarly entered, while provisional positions have been obtained for the stations in the County of Auckland; all information regarding these three counties being referred to stations Tianjara, Dromedary, and Wolumla respectively as points of origin. A re-computation of the survey of the county of Camden has been commenced, the recent survey to the south making a more satisfactory reduction possible than had before been the case.

Notes of astronomical observations of azimuth and latitude at the following stations have been received, viz.:—Mumbulla, Wolumla, and Glenbog; notes of astronomical observations of azimuth at stations Tathra and Cooma being also received. The observations at Mumbulla and Tathra have been computed, and those at the other stations are now being proceeded with.

Further discussion has been made of the values of micrometer revolutions and level divisions; and tables of certain constants serving to facilitate future reduction of geodetic results have been constructed.

Anticipating that the observations of zenith distance at the stations of the south meridian series will be shortly available, preparation has been made for the calculation of the heights of the stations in the extreme southern part of the survey. For the purpose of determining the coefficient of refraction on the south coast, reciprocal observations on nearly one hundred lines have been discussed, and some interesting results have been obtained.

The extension of the triangulation during the year will be seen by comparison of the accompanying map with that appended to last annual report.

The stock of surveying and scientific instruments belonging to the Department may be reported to be in good condition, such repairs as were found needed having been made to instruments returned in a defective state. In view of the need for shortly renewing the stock of arithmometers which have now been in use for many years, one of new form and comparatively low cost has been obtained, and is being tested upon the actual work of the Branch. It appears to work well, and to be likely to last; a trial over a longer time will be needed to determine the latter point.

The *personnel* of the Branch has been slightly changed during the year by the Assistant Computer, Mr. J. B. Trivett, being temporarily removed from August to the end of the year for other work. His work has, however, been taken up by Mr. R. P. Sellors, of the Observatory staff.

MISCELLANEOUS CHARTING BRANCH.

In all the principal classes of work dealt with in the Charting Branch during the year 1897 an increase is shown over that disposed of during 1896.

A further increase in connection with exchanges has occurred, the number of papers dealt with being 1,454 as against 1,220 in 1896.

658 auction cases were disposed of, and an area of 65,379 acres was scheduled as against 46,949 acres in 1896.

3,140 plans and tracings were charted on office maps by contract at a cost of £216 15s.

Steady

Steady progress has been made with the disposal for settlement purposes of the expiring pastoral leases in the Central Division. Of 280 which fell in up to the end of 1897 there still remain 55 to be finally dealt with. The delay in most of these cases is due to exchange proposals being under consideration to improve the form of subdivision for settlement purposes. All the leasehold areas the leases of which expire up to the end of 1899 are now in hand, and instructions have been issued to the respective District Surveyors for the preparation of designs, &c., for the disposal of the available lands.

Besides the current work in connection with the proclamation of the boundaries for Municipalities, Police, District Court, Petty Sessions, Licensing, and Circuit Court Districts, the Police and various Court District boundaries of the Colony have been revised, and adjusted so as to make the several boundaries, as far as possible, coincident. This work, which was commenced in 1896, involved the preparation of 102 illustrative diagrams, together with necessary descriptions, and the charting of the proposed boundaries of the different districts on a large scale map of the Colony. The Justice Department is now taking steps to have the Police and Licensing Districts gazetted. The attention of the Attorney-General's Department has been invited to the desirableness of gazetting the other boundaries, and it is understood that action with this end in view is awaiting reports from the District Court Judges.

Work incidental to the proclamation of districts, &c., under the "Public Health Act of 1895" is also being carried out in the Branch.

It is gratifying to be able to record the completion of the new register of Reserves, which was begun in 1894, and has since been proceeded with intermittently as the exigencies of the Branch have permitted; sixty-nine books and a comprehensive index have been prepared. All the books are now in office use. The index is being type-written and will be available shortly. It is anticipated that all who have occasion to seek information regarding reserve matters will find their work much facilitated by having access to the new books. The index is also likely to prove very useful, as it shows, under counties and in order of dates, all the reserves, which have been published in the *Government Gazette* from the earliest dates.

The work dealt with under the different headings during 1896 and 1897 is as follows:—

	1896.	1897.
Miscellaneous papers in Branch	376	1,028
Auction cases... ..	88	461
Exchange cases dealt with	1,220	1,454
Plans and tracings charted	2,921	3,140
Area scheduled for auction	46,949 acres	65,379 acres
Papers disposed of, inclusive of auction	9,356	10,788
Auction cases dealt with	631	658

COMPILING BRANCH.

Miscellaneous Division.—The compilation of both County and Town Maps, except in a few special cases, has been in abeyance for about half the year. Owing to the pressing demand for parish map lithographs it was decided to employ almost the whole of the staff of this Division in compilation of Parish Maps for a time.

The revision of proofs of the new colony map has been completed during the year, and the necessary corrections upon the stone made. The photo-lithographic edition of this map will, therefore, very shortly be published. As a matter of public interest a few particulars of the new map may be here mentioned. The construction is on a conical projection, and is based upon points determined by astronomical observation at stations upon the main telegraphic lines, with which is incorporated the triangulation as far as it has extended. The last authentic determination of Sydney longitude is used. In order that the map shall be immediately available for public information, and for the multifarious purposes of administration, it has been photo-lithographed to the same scale, which is 8 miles to the inch; when mounted on rollers the size will be 9 feet 6 inches by 7 feet 6 inches, and copies will be sold to the public at a reasonable price. It may be stated that it was intended to have the map engraved; but as the process will take a long period, and is costly, it was decided to adopt a more expeditious mode of reproduction to meet immediate requirements.

New compilations of the following county maps have been completed:—Bathurst, Finch, Baradine, Gresham, Roxburgh.

Standard maps prepared for new editions:—Canbelego, Cooper, Cowper, Robinson (with new reference), Urana.

Compilation of the following county maps were in hand at the end of the year:—Narran, Tandora. Compilations commenced of the following county maps are in abeyance for a time to give preference to parish map compilations:—Ashburnham, Denison (from standard), Georgiana, Goulburn, Gough, Hardinge, Hume, King, Monteagle, Pottinger, Phillip, Wellington.

Maps of the villages of Coff's Harbour, Dapville, Gilgunnia, and The Peak have been compiled and drawn, and there were in hand at end of year maps of the town of Forbes and village of Manildra.

Maps have been prepared from surveyors' plans of the villages of Airly, Bodangora, Boomi, Carpina, Horton, Isis, Lockhardt, McMahon, Mullally, Sancrox, and Ulan, and standards have been prepared for new editions of village maps of Fiefield, Gladstone, and Wrightville.

Lithograph proofs of Land Board District Maps of Moree and Goulburn have been revised. Since 1st June, 1897, sixty-one parish maps have been compiled and drawn.

Twenty-nine plans, representing 158 miles of feature and connection surveys, have been charted.

A large quantity of miscellaneous work has been done in addition to the above, including 12 maps for the Parliamentary Standing Committee on Public Works, to show tenure of land within the scope of proposed new lines of railway, preparation of map of Port Stephens for the Fisheries Department, &c.

Parish Map Division.—In this division there have been 301 new compilations made, and 119 standard maps have been charted up for new editions. Owing to absence of draftsmen at certain offices, &c., neither of these divisions of the Compiling Branch has had the advantage of the continuous service of the full staff during the year.

LITHOGRAPHIC

LITHOGRAPHIC BRANCH.

The general desire for settlement on the lands of the colony, under the liberal forms of tenure provided by the Act of 1895, having continued throughout the year, the preparation of a large number of printed plans, numbering 351, has been necessary for issue to intending settlers, simultaneously with the proclamations of classified areas in the *Government Gazette*.

The publication by this Department of the sheets of the detail survey of city of Sydney and suburbs, and of other towns and municipalities, for the purposes of sewerage construction, ceased during the year, after having been in progress about fifteen years. The number of maps published during that period was 846.

The photolithograph of the recent compilation of the colony map on a scale of 8 miles to an inch, is now in the press, and copies will be available in about three months for official use and public sale.

The following returns show the details of lithographic operations for the year.

Counties.

County maps show measured areas, roads, reserves, features, and all other information which is capable of delineation on a scale of 2 miles to an inch; they are published at 5s. per copy.

Twenty-four county maps were lithographed during the year, comprising 4,956 printed copies:—

Bathurst	Evelyn	Hunter	Ularara
Bland	Evelyn*	Hunter*	Urana
Bland*	Flinders	Leichhardt	Windeyer
Bucceleuch	Forbes	Narromine*	Windeyer*
Cumberland	Forbes*	Perry	Wynyard
Cunningham	Harden*	Perry*	Yungnulgra*

Of these maps, those indicated by the asterisk are printed on the scale 8 miles to an inch, for use in this office, but not for publication.

Towns.

Town maps show the general design, measured lands, and names of purchasers thereof, reserves and dedications within town and suburban limits. They are usually photo-lithographed from compilations prepared at this office or from the surveyors' original plans, to the scale of 4 or 8 chains to an inch, and sold at 1s. per copy.

Twenty town maps were lithographed during the year, comprising 2,200 printed copies:—

Ællalong	Corowa	Lockhart	Sancrox
Airly	Gilgunnia	Mount Allen	Ulan
Bathurst	Gladstone	Mullally	Uralla
Boomi	Horton	New Bendigo	Wrightville
Coff's Harbour	Isis	Reefton	Wyalong

Parishes.

Parish maps are compiled to a scale of 20 chains to an inch for office use, and then, with few exceptions, reduced to 40 chains scale for publication and sale at 1s. per copy.

Three hundred and seventy-five parishes were lithographed during the year, comprising 32,171 printed copies.

Auction Sale and Surveyors' Plans.

Lithographs of lands measured for auction are generally printed for use at auction sales.

One hundred and eighty-four plans were lithographed during the year, comprising 7,208 printed copies.

Miscellaneous.

This class of work principally comprised the following items, viz:—82 sheets of the detail survey for sewerage purposes in the cities of Sydney and Newcastle, and municipalities of Alexandria, Balmain, Darlington, Erskineville, Marrickville, Newtown, Petersham, Redfern, and Waterloo, also the Asylum for the Deaf and Dumb and the Blind; 351 plans for homestead selection, settlement lease, improvement lease, and snow lease purposes; 28 maps in connection with scrub-clearing operations in the West Bogan country; 5 maps of Land Board Districts; 7 maps showing parts of travelling stock routes, Bogabri to Rylstone, and Walgett to Uarbry; map of New South Wales showing railways, with coach routes; maps of New South Wales showing all divisions for purposes of the Crown Lands Acts; and 7 maps illustrating annual report of the Department of Lands for 1896. Four hundred and ninety-three miscellaneous maps and plans were lithographed during the year, comprising 105,023 printed copies.

Other Departments.

Maps, plans, and diagrams have been printed for the Departments of Chief Secretary, Public Works, and Railway Commissioners, comprising maps of New South Wales, city of Sydney, Port Jackson; 5 diagrams of truss and timber bridges; railway guide maps, Wentworth Falls and Katoomba District; map of National Park; military maps, 2 inches to 1 mile, and 1 inch to a mile scales, &c., &c.

Twenty-three maps, plans, and diagrams were lithographed during the year, comprising 42,559 printed copies.

Official Forms.

These forms comprise circulars, decisions, forms, and memoranda required for use at head quarters and at country offices, and are printed in this branch, with the exception of those which can be more economically produced at the Government Printing Office.

Eighty-six official forms were lithographed during the year, comprising 51,335 printed copies.

Comparative

Comparative Summary for 1896 and 1897.

Map, Plan or Document.	1896.		1897.	
	No. of Separate Maps.	No. of Copies Printed.	No. of Separate Maps.	No. of Copies Printed.
Counties.....	12	1,900	24	4,956
Towns.....	15	1,400	20	2,200
Parishes.....	324	25,315	375	32,171
Auction Sales and Surveyors' Plans.....	198	16,968	184	7,208
Miscellaneous.....	452	76,765	493	105,023
Other Departments.....	37	15,269	23	42,559
Official Forms.....	135	71,472	86	51,335
Totals.....	1,173	209,089	1,205	245,452

Contracts for lithography have been completed in value to the amount of £406 2s.

ROADS BRANCH.

The Roads Branch inquires into applications for survey and opening of roads through alienated land and Crown land held under lease, and deals with correspondence relating to roads and streets, matters in general—*e. g.*, complaints of obstruction of roads, objections to proposed roads, and claims to compensation. The plans of roads are examined, catalogued, and approved in the district offices, and then forwarded to this branch, where proceedings are taken for proclamation under the Public Roads Act, or for resumption under the Crown Lands Act of 1889.

The Public Roads Act of 1897, which became law on 30th June, repealed previous Acts relating to the opening and closing of roads, the granting of compensation, &c., &c., and since the date named all new cases which come within the scope of that Act have been begun and proceeded with under its provisions. Afterwards the roads are charted upon office plans and maps, and fully noted copies of the plans are furnished to the Department of Public Works and to the Registrar-General.

Land Boards' appraisements of compensation, consequent on the opening of roads, are dealt with, and action taken in respect of granting Crown land or unnecessary roads in lieu of land resumed.

Plans of streets surveyed for alignment on the applications of municipal councils are examined, catalogued, and approved in District Survey Offices, then forwarded to this branch, where the cases are prepared for submission to His Excellency the Governor for approval of the proposed alignments. The Public Roads Act of 1897 legalises the performance of alignment surveys by the Crown on application being made by municipal councils, the establishment of alignment under the Governor's authority, and it also gives power to alter the alignment of streets which have previously been aligned.

Applications for permission to erect public gates under Act 39 Victoria No. 10 are considered and dealt with. The powers of the Public Gates Act have been extended by the Public Roads Act of 1897.

Applications under section 67 of the Crown Lands Act, 48 Victoria No. 18, for purchase of unnecessary roads receive preliminary consideration, and when purchase has been completed all maps and office plans are noted. The Public Roads Act of 1897 repealed the 67 section of the Crown Lands Act of 1884, and, since the 30th June, action to close and alienate unnecessary roads has been taken under the Public Roads Act.

During the year 463 applications for survey of roads and streets were received and dealt with; also 313 surveyors' reports (exclusive of reports transmitting plans of surveys); 257 road plans, showing 504 miles of road surveyed; 15 alignment plans, showing 44 streets as marked for alignment of carriage-ways and foot-ways; 48 applications for permission to erect 78 public gates; 84 applications for purchase of 146 unnecessary roads; and 375 objections and claims with regard to road and street surveys.

Information has been furnished for 3,388 letters in reply to communications and inquiries from members of the public with regard to roads and streets matters. There were 7,009 papers registered during the year, which, together with 809 papers relating to roads registered in other branches, make a total of 7,818 papers received and dealt with. In 177 cases action has been taken to grant Crown land or unnecessary roads in compensation for land resumed under 42nd section of the Crown Lands Act of 1889 and Public Roads Act of 1897.

OCCUPATION DRAFTING BRANCH.

The work performed by this branch shows a slight increase on that transacted during the year 1896.

Drafting work required by the Fisheries Commissioners in connection with oyster leases is now done in this branch.

A considerable amount of business in connection with offering for improvement leases an area of 164,607 acres of the West Bogan country cleared by the Government, has been carried out by this branch.

The number of surveys dealt with under the 143rd section is in excess of those completed in 1896.

Eleven cases have been investigated, representing the survey of 74 miles 27 chains of holding boundaries and dividing lines, towards the cost of which the lessees contributed £74 6s. 4d.

Notifications of withdrawals from twenty-eight leaseholds in the Central Division, and two in the Western, were published in the *Government Gazette*, covering an area of 547,567 acres, of which 403,361 acres were withdrawn from twenty leaseholds in the Central, and one in the Western Division during the year. Withdrawal from the remaining eight in the Central, and one in the Western will not take effect until the year 1898. The total area actually withdrawn during the year for settlement purposes in the Central Division was 387,661 acres, and 15,700 acres in the Western.

There is a slight decrease in the number of adjustments made during the year in connection with areas of occupation licenses and pastoral leases affected by withdrawals or reversions. It has been found necessary in 109 cases to make a thorough investigation of the area under review.

Two hundred and thirty one homestead, improvement, and other leases have been charted on the office maps, and 384 plans noted.

Two hundred and ninety seven tracings and lithographs have been prepared for appraisalment and other purposes.

One hundred and fifteen new occupation licenses have been charted on office maps.

Sixty plans of abandoned resumed areas have been charted up and forwarded to the District Surveyors for report as to best means of disposal.

One hundred and eighty four lots of vacant Crown lands, proposed to be offered by auction or tender for occupation license, have been dealt with.

MISCELLANEOUS CONTRACT BRANCH.

There were 4,233 lithographs and tracings prepared and issued from this branch, being thirty-one in excess of the previous year. Three hundred and thirty of these were maps of areas set apart for settlement under the provisions of the Act of 1895; 341 for illustration of exchange proposals; 247 standard tracings of plans of roads and streets, and forty-one plans for notation purposes. A large number of sketches and tracings were also prepared in connection with the Conditional Purchasers Relief Act.

CORRESPONDENCE AND RECORD BRANCH.

The following tabulated statement shows the services performed during the year in this branch:—

Papers received from other branches and dealt with	12,366
Papers, plans, tracings, &c., received by post	1,177
Instructions recorded and issued to surveyors	1,475
Reports received from surveyors and recorded	1,330
Letters written and despatched	980
Memoranda, tracings, lithographs, plans, &c., sent to surveyors	6,789
Minutes written to the Under Secretary	830
Ministerial decisions noted	300
Telegrams written and despatched	90

Leave registers showing all leave taken by officers of the Survey Branch, field and office staffs, are kept in this branch.

PLAN RECORD BRANCH.

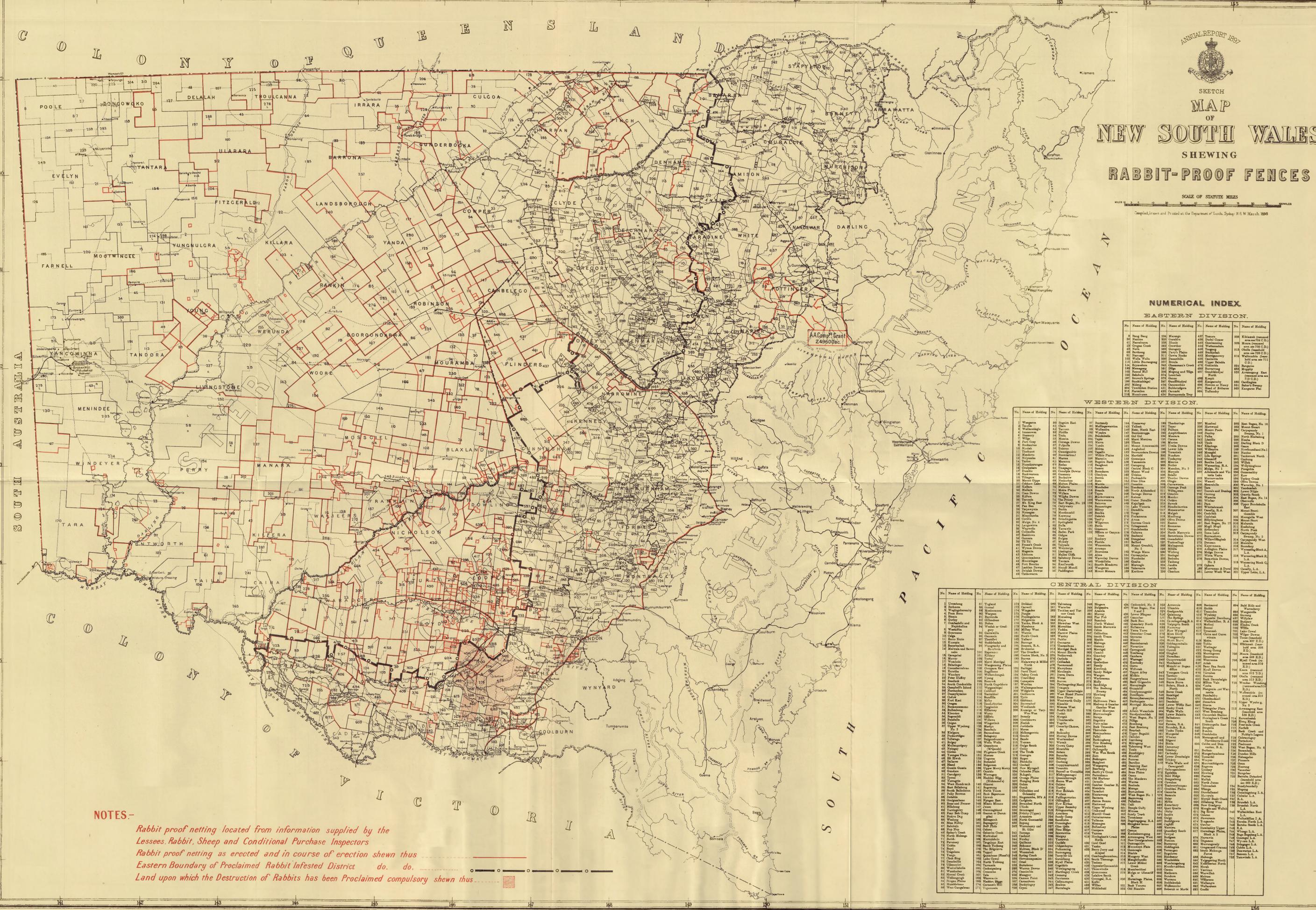
Approximate number of plans entered in books at end of the year	277,318
Approximate number of plans issued to and returned from officers in Metropolitan District Survey Office, Head Office, and Mines Department	134,154
Cancelled maps received	767
Plans sent to plan-mounter	3,902
issued to Inquiry Branch	563
exhibited at counter	6,834
despatched to District Survey Offices	15,091
returned from District Survey Offices	14,975
Applications from District Survey Offices (registered)	3,097
Memoranda returning plans from District Survey Offices (registered)	1,350
Draftsmen's memoranda to District Survey Offices for plans	1,401
Certified copies received from District Survey Offices	3,239
Surveyors' field-books in custody	7,239

PLAN-MOUNTING BRANCH.

The work performed comprises:—Plan-mounting, 15,302 pieces; rollers, varnishing, corners, lists, and miscellaneous, 1,325 pieces; binding, 313 pieces; parcels post, 909; total, 17,849 pieces. The total for the year 1896, was 20,307 pieces.

J. WITTER ALLWORTH,
Acting Chief Surveyor.

[Three Maps.]



MAP OF NEW SOUTH WALES SHEWING RABBIT-PROOF FENCES

SCALE OF STATUTE MILES

Printed and Published at the Department of Lands, Sydney, N.S.W. March 1890

NUMERICAL INDEX.

EASTERN DIVISION.

No.	Name of Holding	No.	Name of Holding	No.	Name of Holding	No.	Name of Holding
1	Ang Bay	251	Warrumbidgee	497	Wentworth	743	Wentworth
2	Ang Bay	252	Warrumbidgee	498	Wentworth	744	Wentworth
3	Ang Bay	253	Warrumbidgee	499	Wentworth	745	Wentworth
4	Ang Bay	254	Warrumbidgee	500	Wentworth	746	Wentworth
5	Ang Bay	255	Warrumbidgee	501	Wentworth	747	Wentworth
6	Ang Bay	256	Warrumbidgee	502	Wentworth	748	Wentworth
7	Ang Bay	257	Warrumbidgee	503	Wentworth	749	Wentworth
8	Ang Bay	258	Warrumbidgee	504	Wentworth	750	Wentworth
9	Ang Bay	259	Warrumbidgee	505	Wentworth	751	Wentworth
10	Ang Bay	260	Warrumbidgee	506	Wentworth	752	Wentworth

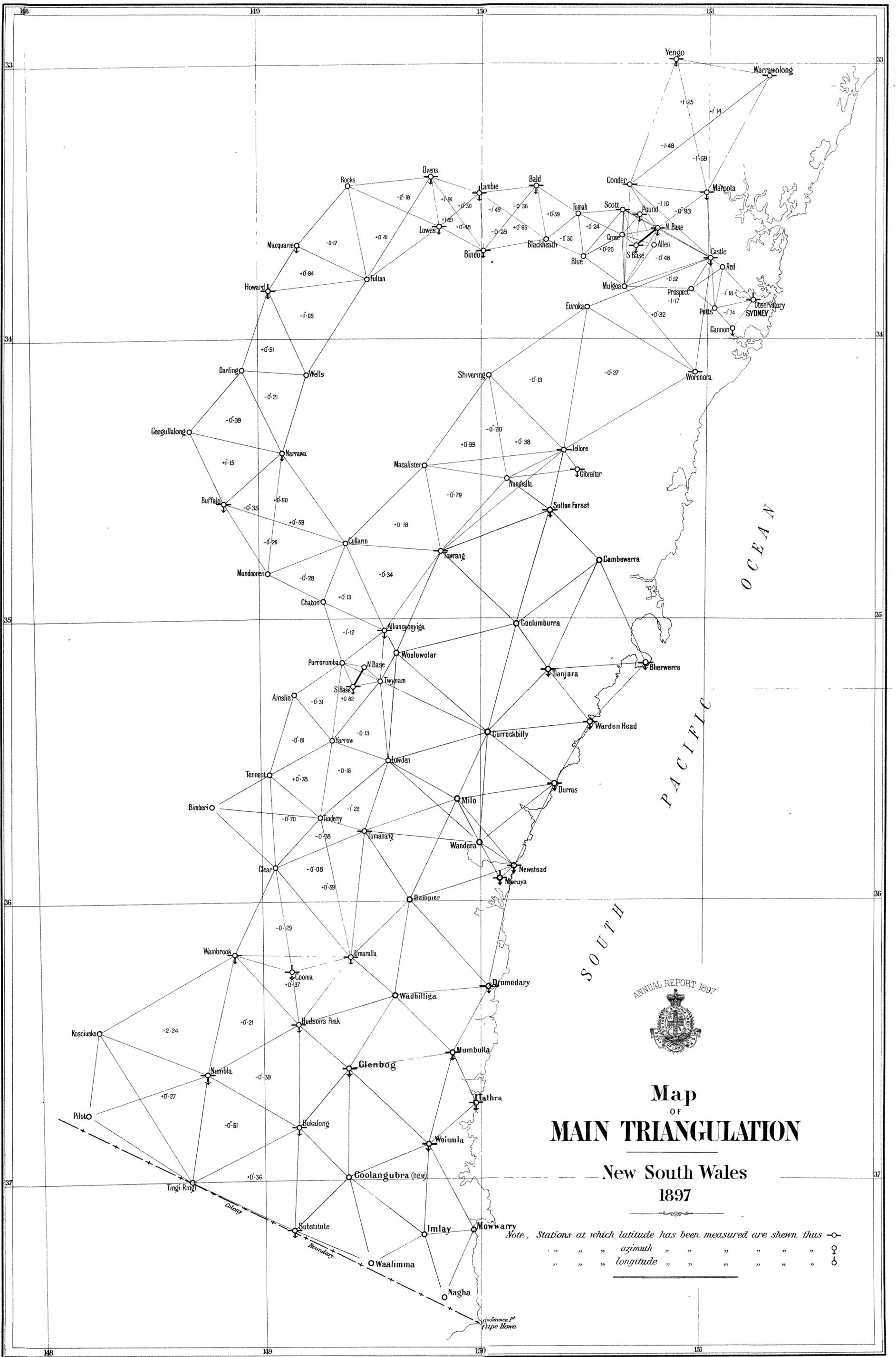
WESTERN DIVISION.

No.	Name of Holding	No.	Name of Holding	No.	Name of Holding	No.	Name of Holding
1	Wentworth	251	Wentworth	501	Wentworth	751	Wentworth
2	Wentworth	252	Wentworth	502	Wentworth	752	Wentworth
3	Wentworth	253	Wentworth	503	Wentworth	753	Wentworth
4	Wentworth	254	Wentworth	504	Wentworth	754	Wentworth
5	Wentworth	255	Wentworth	505	Wentworth	755	Wentworth
6	Wentworth	256	Wentworth	506	Wentworth	756	Wentworth
7	Wentworth	257	Wentworth	507	Wentworth	757	Wentworth
8	Wentworth	258	Wentworth	508	Wentworth	758	Wentworth
9	Wentworth	259	Wentworth	509	Wentworth	759	Wentworth
10	Wentworth	260	Wentworth	510	Wentworth	760	Wentworth

CENTRAL DIVISION.

No.	Name of Holding	No.	Name of Holding	No.	Name of Holding	No.	Name of Holding
1	Wentworth	251	Wentworth	501	Wentworth	751	Wentworth
2	Wentworth	252	Wentworth	502	Wentworth	752	Wentworth
3	Wentworth	253	Wentworth	503	Wentworth	753	Wentworth
4	Wentworth	254	Wentworth	504	Wentworth	754	Wentworth
5	Wentworth	255	Wentworth	505	Wentworth	755	Wentworth
6	Wentworth	256	Wentworth	506	Wentworth	756	Wentworth
7	Wentworth	257	Wentworth	507	Wentworth	757	Wentworth
8	Wentworth	258	Wentworth	508	Wentworth	758	Wentworth
9	Wentworth	259	Wentworth	509	Wentworth	759	Wentworth
10	Wentworth	260	Wentworth	510	Wentworth	760	Wentworth

NOTES.
 Rabbit proof netting located from information supplied by the Lessees, Rabbit, Sheep and Conditional Purchase Inspectors
 Rabbit proof netting as erected and in course of erection shewn thus
 Eastern Boundary of Proclaimed Rabbit Infested District do. do.
 Land upon which the Destruction of Rabbits has been Proclaimed compulsory shewn thus



ANNUAL REPORT 1897



Map
OF
MAIN TRIANGULATION
New South Wales
1897

Note, Stations at which latitude has been measured are shown thus \circ
 " " " azimuth " " " " " " " " " " \odot
 " " " longitude " " " " " " " " " " \ominus

1898.

LEGISLATIVE ASSEMBLY.

NEW SOUTH WALES.

MILITARY.

(REPORT ON RIFLE-SHOOTING UNDER ACTIVE SERVICE CONDITIONS.)

Printed under No. 2 Report from Printing Committee, 6 July, 1898.

REPORT of a Committee, appointed by the General Officer Commanding the Military Forces of New South Wales, to report upon the subject of "Rifle-shooting under Active Service conditions," in connection with a Question asked in Parliament by Mr. Price, M.P., on the 9th December, 1897.

THE Committee, having carefully considered the subject, submit the following Report for the consideration of the General Officer Commanding :—

I.—GOVERNMENT GRANTS FOR RIFLE-SHOOTING.

We find that the Government grants for the encouragement of rifle-shooting in New South Wales, outside the ammunition supplied for annual musketry courses, are as follows :—

- (1.) Free ammunition to "efficient" of the Defence Forces for practice purposes, not exceeding 50 rounds per efficient soldier annually.
- (2.) Free grants of ammunition to reservists, not exceeding 150 rounds per efficient reservist, and a bonus of 200 rounds to each during his first year of service.
- (3.) Monetary grants annually to the National Rifle Association, and the Northern, Western, and Southern Rifle Associations, of £1,750, railway passes to the value of £675, and free ammunition costing £882.

These Associations are further assisted by the free use of Government ranges and equipment (where available), as well as the services of any supervising staff they may require.

II.—MODERN FIRE-DISCIPLINE.

The experience of modern warfare shows that when troops become engaged the result of the combat almost entirely depends upon the better "fire-discipline" maintained on either side.

"Of all the incidents of a modern fight, that of which it is the hardest to give any conception to anyone who has not seen infantry possessed of the enormous facilities for firing, which are supplied by modern arms, is the intense absorption, in the mere fact of firing, which, almost like a catalepsy, takes possession of the man who is using his weapon against an enemy, or, as may often happen, in close country against nothing at all. We want to educate men so that they do not fire under the conditions of catalepsy. Experience has shown that this can only be done by having men, who are not themselves firing, trained to look after those who are firing, so that the fire may be regulated. The men themselves must be trained only to fire under orders, and never under the influence of a tendency to relieve their feelings. We cannot put better what is involved in these necessities than in the words of Colonel J. H. A. Macdonald of the Queen's Edinburgh Rifle Volunteer Brigade (now Lord Kingsburgh). How is this to be done? How, but by so regularly, consistently, and persistently putting the soldier through the action of firing by orders, that it shall be a second nature to fire only under control of his superior, and not otherwise. What is wanted is the conviction in the mind of every instructor, from the highest to the lowest, that his men should never leave a parade without having gained something in fire discipline—that is, that fire control drill be one of the main points in view as a necessary part of the work to be performed on every occasion when men are being drilled, exercised, or inspected, from the moment that they know the rifle exercises, until the day when they leave the Service. Let some of the time which formerly was spent in a perpetual form drill to produce a military machine, that had a steadiness in formation which nothing could shake, be now spent in producing, by a perpetual control drill, a fire organism which shall have a steadiness in the use of fire which nothing can shake. The troops that shall be found most in the hands of the commander in the matter of fire will, *cæteris paribus*, be invincible." (From the article "War" in the *Encyclopædia Britannica*, by General Maurice, late Professor of Military Art and History, Royal Staff College.)

It

It has been found in every war since 1870 that the natural tendency of the troops engaged is to expend vast quantities of ammunition in wild *uncontrolled fire*, and that this kind of fire, when once begun, is most difficult, if not impossible, to check, produces a minimum effect, is demoralising to troops using it, and encouraging to the enemy.

In order to subdue this state of indiscipline, every endeavour is now made, by peace organisation and training, to accustom men to fire by word of command, until by constant habit it becomes a second nature. It is further recognised that control is more difficult, and is yet more important, when troops come into closer contact, hence fire-groups of fifteen to twenty men have been organised, this being the largest number that can be directly kept in hand by one commander during the later and decisive period of the fight. On these principles the independent fire of individuals is not only discouraged but prohibited, and is only practised in peace training in order that, when it is no longer possible to prevent it, it may be regulated to a certain extent. (In Appendix A the comparison between the effect of controlled and uncontrolled fire is more fully explained.)

III.—MUSKETRY PROGRESS IN RECENT YEARS.

It should be borne in mind that, when Rifle Associations were first formed, musketry training was not only generally regarded as quite distinct from drill, but even as a troublesome adjunct to a soldier's routine work, and it was almost entirely left to these Associations to endeavour to popularise rifle-shooting.

"The whole of our old system of musketry (1877) was based on the assumption that every man with good eyesight could be made a good shot, and the individual fire of a single man was accordingly raised to the highest place. The falseness of this hypothesis was amply proved in our late campaigns, where our shooting is reported to have been as bad as it could possibly be." (This was written in 1888.) "The fact of the matter is that only *very few men are individually good shots*, especially when under fire, and those that are such have *their skill nullified* in the field by the excitement of the fight and by *not knowing the ranges exactly*, the almost *all-important point* for accurate shooting." (*Mayne's Infantry Fire Tactics.*)

Considerable progress has been made during recent years in musketry instruction in the British Army, and, following continental precedent, the various courses for the recruit and trained soldier have been amended, in order to bring the shooting as nearly as possible up to modern conditions of warfare. Thus, whereas in former days individual fire was considered all that was necessary for a soldier to learn, it is now recognised that this portion of his training can only be regarded as preliminary to his further instruction in controlled fire and shooting under varying and difficult conditions.

We have to consider, therefore, whether the assistance given by the Government in the present day towards the encouragement of rifle-shooting is expended in conformity with these modern principles.

Up to 1887 the Imperial musketry course consisted almost entirely in individual deliberate shooting, and this was the class of shooting carried out by the National and other Rifle Associations.

The musketry training which came into force in 1892 introduced essential changes, the recruit was allowed to fire only 84 out of 200 rounds in individual deliberate shooting, and the trained soldier only 45 out of 200.

A still greater proportion of the rounds fired by the Imperial soldier is now devoted to controlled fire and rapid shooting, and it is yet in contemplation by the Imperial authorities that this proportion shall be further increased.

Following the Imperial Regulations, the military authorities of New South Wales have directed that only 49 rounds out of 151 are to be expended in deliberate uncontrolled fire, *i.e.*, to teach the soldier to readily adopt the various military positions in firing, standing, kneeling, and lying down, and to give him, by aiming deliberately at a fixed target, sufficient confidence in the accuracy of his rifle. The whole of the remaining rounds are now expended in instruction in rapid, controlled, and collective firing—that is, under conditions resembling those to which a rifleman would be subject in the face of an enemy.

There being no prizes in connection with the annual musketry courses as obtains in the Imperial Service, it naturally follows that the nature of the shooting conducted by Company, Regimental, and Civilian Rifle Clubs is confined almost wholly to the one class of match which is encouraged by the various Rifle Associations. It is to be regretted that these bodies, who it will be seen (para. 1) monopolise Government aid, not only in respect to cash subsidies, but also in the matter of free railway passes, and who, being thus favoured, are also endowed with the greatest responsibility—should virtually be quite beyond any control by the Military Department.

IV.—RIFLE MEETINGS OF TO-DAY.

Until the year 1887 the deliberate individual firing carried out at the meetings of the several Rifle Associations could hardly be considered other than in conformity with the authorised musketry course then laid down by regulations. On the other hand, it must be recognised that in continuing to devote nearly the whole of their meetings to very deliberate individual fire these bodies are not now at all in touch with the later principles, which regulate the peace training of a soldier in the use of his rifle for war purposes.

In order that this distinction may be clear, it is necessary to point out in what essential ways the matches now conducted at Rifle meetings are not of the character required by a soldier in peace training.

(1.) *Slow Aiming.*

Excepting the five so-called service matches, the whole of the ammunition expended is in slow shooting, *i.e.*, within their time limit of one round per minute, *vide* General Regulations of the National Rifle Association, 13 (e).

Until a soldier understands the elementary principles of shooting, it is necessary that he should have *ample time*, not only to aim, but to fire. This, however, is a matter for *recruit instruction*.

On the other hand, as soon as his preparatory training is complete, and he becomes a portion of a fire-unit, *i.e.*, a number of men firing by one man's word of command, the soldier's individuality must give place to disciplinary action, his will being entirely subordinated to that of his commander, otherwise he becomes not only useless, but an encumbrance and a source of danger to his comrades.

A soldier, therefore, who habitually takes very deliberate aim, is quite unable to comply with service conditions, which require instant obedience and immediate action. It is very seldom, indeed, that a man who is successful as a deliberate firer shows to advantage in rapid shooting.

"I am certain that in practice the well-trained man, the ordinary shot of the battalion, is, in action, every bit as useful and good as is the marksman. I have tried it practically. I have taken sections of marksmen and tried them against sections of ordinary shots in the field under service conditions. The difference is nothing."—Sir J. De Hoghton, Bart., late D.A.A.G. at the School of Musketry, Hythe.

In fact the slow aimer refuses almost invariably to compete in rapid-firing matches, because he knows that constant practice in the former not only avails him nothing in the latter, but even unfits him for the change.

However, pleasing it may be to the old and conservative rifle-shot to take his own time in aiming and pressing the trigger, his peaceful effort cannot, by any stretch of imagination, be taken to represent a rifleman's duty when faced by an impatient foe. This manner of shooting is of course not practicable in war. At the last meeting of the National Rifle Association, in the rapid-firing match, about two-thirds of the prize money went to men who had been altogether unsuccessful in the deliberate competitions, although opposed by many of the so-called "crack shots" of *six colonies*.

Out of 124 rounds fired in individual competitions, 112 rounds were fired in slow shooting, and twelve rounds in rapid.

Out of £2,015 5s., allotted for prizes in individual competitions, £1,937 5s. were for slow shooting, and £78 for rapid.

This unsoldierly condition of shooting which prevails at Association meetings, viz., slow aiming (that is an allowance of one minute for each round fired) has further reduced the nature of shooting to a gallery science, in which artificial aids have been introduced, in order to make the result of each shot more profitable to the firer. The slow aim and artificial aids are equally impossible from a military point of view

(2.) *Artificial Aids.*

A permanent rest for his rifle not being allowed, the match rifleman adopts every other contrivance that will assist him regardless of its applicability, not only in war, but even in shooting game.

Thus, not satisfied with the weapon issued to him, notwithstanding that it has passed the most severe tests and been adopted by experts as best fulfilling a soldier's requirements, the match rifleman is invariably accompanied by the following elaborate paraphernalia:—A cedar box or leather case containing cartridge-racks, grease-pot to oil his cartridges, black and white paints with camel-hair brushes to nullify the effect of the varying natural conditions of light and atmosphere upon his sights; chalk pencils by which, with the aid of a mathematical instrument, known as a *ventometer*, he marks a new sight upon his rifle, gauged to one-hundredth part of an inch as an allowance for the strength of the breeze; a *vernier*, similarly accurately gauged to give the elevation to a minute fraction; a *blow-tube*, with which he moistens his barrel after each shot; an *orthoptic*, or specially-constructed metal screen to concentrate his vision on the target; coloured glasses to protect his eyes from the strain of ordinary daylight; and a *temporary rest* to support his elaborately garnished weapon between rounds, and to prevent it from undue contact, which, by accident or otherwise, would derange its minute appointments, and result in the discomfiture of the "crack shot."

With all these aids, the match rifleman, under regulations laid down by his own representatives on the Rifle Association's councils, objects to shoot in any but the "prone" or lying-down position at all ranges, notwithstanding that the Musketry Regulations forbid this position, except at ranges over 500 yards. He, as a matter of course, vilifies any unfortunate comrade whose passing shadow may derange his equanimity, and a range official further protects his nerves from desultory conversation in his vicinity.

Is it likely that a soldier, imbued with a knowledge of what will be required of him on service, will consent to have recourse to these utterly impossible conditions and adjuncts, except with a view to monetary advantage?

Can such pastime, which is unworthy of the name of sport, appeal to the soldier as either worthy of his time and attention, or calculated to improve him as a part of a military machine? The kangaroo-shooter is infinitely more entitled to Government aid.

Constantly firing with a slow aim, and relying upon artificial aids, renders a soldier unfit to cope with the varying conditions which he must meet with on service, and to which he should endeavour to be accustomed by peace practices.

V.—SERVICE MATCHES.

In the annual meetings of the various Rifle Associations in New South Wales we notice that service matches are in a very undue minority.

They are even acknowledged by the governing bodies as undesirable, because, to them, unprofitable items. Thus, at the last meeting of the National Rifle Association in 1897, out of a total of twenty-seven competitions, only *five* (viz., the regimental bugle, battle firing, "Duff" rapid firing, and running-man events) could be considered as approaching service conditions, and three of these were service matches rather in name than reality, inasmuch as they were conducted under conditions and with accessories impossible to a soldier in war.

In the regimental bugle match a bull's eye target was employed instead of a figure; slow aiming and artificial aids to the rifle were permitted.

In the rapid-firing match a bull's eye target was employed, and artificial aids were permitted.

In the running-man match artificial aids were also permitted. Even the remaining two events, under so-called service conditions, viz., the "Duff" and battle-firing matches, were not under service conditions in many respects. The ranges were known in the latter, and it was conducted with a deliberation, 45 seconds for two volleys, which would have been suicidal to men under fire; the targets in both cases were stationary; fire concentration, casualties, and delegation of command were not practised, and in the "Duff" the target (6 feet x 6 feet, bull's eye, &c.) was arranged as for slow individual fire, and could not be conceived to represent any enemy, either in size or position.

Out of a total of at least £2,483, distributed in prizes (excluding continuous matches) at the 1897 meeting of the National Rifle Association, the council saw fit to devote only £286 to the matches approaching service conditions.

Thus the kind of shooting that should have formed the main portion of the meeting was valued at only one-ninth ($\frac{1}{9}$) of the whole.

It

It will further be noted that in the matches arranged by the council of the National Rifle Association, there is an abnormal disproportion between the amounts which it is open to an *individual* to win as first prize in the individual slow-shooting contests, as compared with those under so-called service conditions.

The total amount devoted to each of these events is also worthy of comparison :—

Slow Individual Matches.	First Prize.	Total Prizes.	So-called Service Matches.	First Prize.	Total Prizes.
<i>A Series.</i>					
Randwick	£ 6	£ 70	Regimental Bugle, Teams	£ 2/10/-	£ 90
Paddington	7	85	Battle-firing, Teams.....	3/10/-	96
Sydney	8	100	“Duff” Teams	2	20
Association, Aggregate	15	200	Rapid-firing	8	78
Members	10	100	Running-man, Continuous	1	50 per cent. of entrance fees.
Jaques	10	110			
Manning.....	10	115			
Dangar	25	130			
Queen's, Aggregate	50	650			
<i>B Series.</i>					
Nursery	5	50			
Sheridan.....	6	60			
Lewington	7	70			
Richardson, Aggregate	10	125/5/-			
Tyro	5	40			
Rifle Clubs.....	8	250			
Parliamentary	3	7			
Affiliated Clubs.....	5	25			
Continuous	1	50 per cent. of entrance fees.			

Thus one individual can in the individual slow-shooting matches win a total sum of £187 (exclusive of continuous matches), or if ineligible, by former successes, for the B series, a total of £152, whereas in the service matches the highest possible total is £16 (exclusive of continuous), the proportion being again as 9 to 1.

Quoting from the results of the annual meetings of the National Rifle Association, we find that, in :—

1896.	£	1897.	£
24 of the competitors won...	693	19 of the competitors won...	537
1st man won	119	1st man won	72
2nd man won	81	2nd man won	51
3rd man won	51	3rd man won	42

It will be found that certain individuals continue to win large sums from year to year, *e.g.*, Lieutenant * * * at the annual meetings of the National Rifle Association in 1895-96-97, and exclusive of prizes won by him at Association meetings in the country districts and other colonies, won £49, £81, and £51, a total of £181, averaging £60 a year.

The following may be taken as instances of the large amounts that have been won since 1891, by individuals at single meetings of this Association :—£143, £119, and £106.

The whole of the above figures exclude prizes in the continuous and some of the teams matches.

Is it intended that the Government should subsidise individuals, who have apparently long since acquired all that can be learnt about this kind of shooting?

It has often been stated by members of the council of the National Rifle Association, as a reason why they devote so small a portion of their meetings to service matches, that, as compared with other events, the receipts for entrance fees in the former do not realise so large a proportion of the prize money. This may be so, but can a large number of entries be expected for a series of matches, the prize money of which is so out of proportion to that given for shooting under the slow-aiming and unsoldierly regulations of the National Rifle Association, especially when the style of shooting is so absolutely different, as almost to debar a good “service” shot from any chance of winning distinction in these gallery practices?

It is worthy of note that the soldier is further impeded in his effort to win the small prizes offered for service matches, by the refusal of the National Rifle Association to issue him a railway pass, until he has expended a sum of at least 15s. in entrance fees for the individual slow-shooting matches, in which, as already pointed out, he can hope to meet with small, if any, success.

This disability is so pronounced as almost to be prohibitive in the case of the country units of the mounted troops. Thus, a team of four men, belonging to the cavalry, who desire to enter for the “Duff” competition, which is the only match in which their own firearm (the carbine) is used, are either refused railway passes, or compelled, in order to obtain them, to enter three men for *at least* the series of matches included in the “Richardson Aggregate.” This means that, in addition to the entrance fee of 10s. for the “Duff,” a further sum of at least £2 5s. must be paid, attendance and shooting for an extra day and half is rendered compulsory, and the cavalry soldier is expected to compete under disadvantageous conditions with men armed with rifles, and aided by the many contrivances so repugnant to a service shot.

Under the same rules a team of infantry, desiring to shoot in their special event, the battle-firing match, must pay, in addition to the entrance fee of £1, a similar additional sum of at least £5 5s., or pay their own railway fares.

At the last meeting of the National Rifle Association twenty-seven men of two country companies of the Second Infantry Regiment were refused railway passes in this way, and obliged to pay their own fares to and from Sydney. How many others were debarred from attending for the same reason?

Would not the expenditure in bringing a professional shot from the Victorian Border to Sydney be laid out to more advantage by the issue of railway passes to a number of our own men, resident within the Colony?

It militates greatly, moreover, against the number of entries in service matches, that general attention is concentrated upon the results of the other matches by means of “aggregate” prizes, and that service

service matches are set down for a time when the other matches are in progress, with the result that, as men have to fire in the latter or stand out of the aggregates, they are naturally led to pass by the service matches, which have thus been rendered a sort of side-show.

It is not always impossible, certainly, for men to shoot in both classes of match, but the conditions are so inconvenient as to prejudice a man's chances in both, and cause him to declare, as has often been heard lately, that he would avoid any service matches in future.

VI. AGGREGATES.

The Committee are of opinion that the so-called competitions, which appear under the name of aggregates, are undesirable and quite unworthy of Government support. Generally, their views are expressed in the following quotation from a letter by "Smallbore," published in the *Sydney Daily Telegraph* of the 2nd December, 1897:—

"I find that the New South Wales Rifle Association set apart the sum of £850 to two competitions (for which they charge entrance fees) viz., the 'Association aggregate' and the 'Queen's champion aggregate.' As a matter of fact, not a single shot is fired in these two competitions, but the sum named is divided exclusively among those riflemen who have scored successfully in previous matches during the meeting. It is claimed by the Association that these aggregate prizes are intended to reach such steady shots as have not secured prize places in matches, but who have shot up to a good average standard. A little investigation, however, will show that this large sum of money is merely an additional inducement to our so-called crack shots. In the association aggregate this year only £11 out of £200 was awarded to men who had not already profited by previous prizes. The Queen's champion aggregate of £650, which is only open to the 150 highest scorers in previous matches, and in which those who have already profited in the Association aggregate are allowed to participate, I notice that only £21 went to men who had not already gained considerable sums individually at the meeting."

The system thus alluded to of giving additional bonuses to individuals who have, in the opinion of the Committee, already won enough money in the single matches, appears to be quite unwarranted, and even without reason, unless it is assumed that the council of the National Rifle Association find the Government subsidy (together with entrance fees, &c.) amounts to a much larger sum than they require as prize money for the number of matches they can get through in a week. Even if this is so, is the National Rifle Association justified in distributing any surplus money among the so-called crack shots, when this amount could be well devoted, even under their own system, to reducing entrance fees or multiplying the small prizes? *The inducement to the so-called crack shots to attend would be less*, but their presence does not appear to the Committee to be of any importance from a national point of view.

VII. ADMISSION OF RIFLEMEN FROM OTHER COLONIES, AT THE MEETINGS OF THE RIFLE ASSOCIATIONS OF NEW SOUTH WALES.

The inducement to riflemen of other colonies to compete against those in New South Wales is no encouragement to the young shots of those colonies, and, on the other hand (on account of the expense involved in attendance), serves merely as an annual attraction to the ubiquitous and professional pot-hunter. The Committee are furthermore of opinion, that outside competition of this nature, eventuates only in the discouragement of our own inexperienced men, and is of no profit to the Colony. Out of about £2,483, paid in prize money at the last annual meeting of the National Rifle Association, at least £654 was won by riflemen from other colonies, *i.e.*, considerably more than one-fourth ($\frac{1}{4}$) of the total, and one-third of the amount in prize money offered for those competitions which were open to them.

VIII. HANDICAPS.

From the point of view that the Government grants in money, &c., to Rifle Associations are with the object of some return being given, in the improvement of rifle-shooting *generally*, throughout the Colony, rather than, as in sporting competitions, when, for spectacular purposes, it pays to offer large sums to induce champions to give an exhibition of their prowess, it appears to the Committee that every reasonable encouragement should be afforded to the largest number; first, in order that beginners may be induced to enter, and second, that the medium men may have opportunity to improve. With a view to popularity, and to attract large numbers, the medium and young shots must be given an equal chance with those who have had greater experience.

This can only be done, in individual matches, by a judicious system of handicapping competitors by their previous performances.

IX. THE "RESPONSIBILITY" OF THE NATIONAL AND OTHER RIFLE ASSOCIATIONS.

As already explained, it is absolutely necessary that radical changes be made before match-shooting can be considered to be of any military value. The Committee can conceive no justification for the large annual expenditure (£3,307), which now keeps in existence the various Rifle Associations of the Colony, unless these bodies are prepared to recognise the grave responsibility devolving upon them as national institutions.

They must, moreover, be prepared and able, by an entire reformation of their present system, to elevate what they themselves regard as a "pastime," to the status of a valuable adjunct to the peace training of our soldiers.

The Committee regret that they cannot hope to see the needed reforms carried out by the existing councils of the Rifle Associations of New South Wales.

This opinion is based upon the present constitution of these governing bodies, their responsibility in reality to the voters who have elected them, and their actual personnel. The last point, although but the natural result of the two former, is of such importance as to call for special analysis.

The council of the National Rifle Association at present consists of 20 members, of whom—1 is an active member of the N.S.W. Mounted Rifles, 3 are active members of the N.S.W. Infantry, 5 are active members of the N.S.W. Naval Forces, 8 are civilians or members of Civilian Rifle Clubs, and 3 are retired officers of the N.S.W. Military Forces. Thus

Thus it will be seen at a glance that those branches of the land forces (Cavalry, Mounted Rifles, and Infantry) which are pre-eminently expected to be expert with the rifle or carbine, and who, numbering 6,000, form two-thirds of the whole defence force, are represented on the Council by only four out of twenty members.

Again, the Naval Forces, numbering under *six hundred*, are represented by five members, as compared with four from the *six thousand* (6,000) before mentioned.

It is most inadvisable, too, that an association formed "for the encouragement of rifle shooting in the Defence Forces of the Colony," *eight* out of the *twenty* members (nearly half the Council) should be civilians.

The three retired officers can scarcely be taken to represent any section of the present Defence Force; and, however enthusiastic they may be individually, it is a question whether officers, who have ceased to be active members of the force for several years and are inexperienced in the progress of later reorganisation, can be expected to be in touch with the present requirements of military training.

It is not, under such circumstances, difficult to understand the repudiation by this body of their responsibility for the soldier's training in shooting.

The Committee are of opinion that, in the best interests of the Colony and to ensure a proper return to the Government for the public money devoted to rifle shooting, one-half of the members of the Council should, to ensure expert knowledge and experience, be appointed by the General Officer Commanding the Military Forces of New South Wales, the remainder to be elected by the members of the association as heretofore.

Under any circumstances, the Committee consider that a portion (say £500) of the aid, at present granted to rifle shooting, should be devoted to a rifle meeting of an entirely service character.

X.—SUMMARY.

It appears to the Committee that the prejudicial conditions which obtain in the present system of match-shooting may be summarised as follows:—

- (1.) Irresponsibility of rifle associations to the military authorities.
- (2.) Defective constitution of the councils of these associations.
- (3.) Absence of any control over the expenditure of Government aid to rifle associations.
- (4.) Failure of rifle associations to keep pace with the progress of military training.
- (5.) Almost entire neglect of controlled and collective fire.
- (6.) A general absence of a proper attempt to shoot under service conditions.
- (7.) The almost universal adoption of a most pernicious system of slow aiming.
- (8.) Habitual reliance upon ridiculous and unserviceable adjuncts to the rifle.
- (9.) The disproportionate appropriation of prize money to matches for professional shots, as compared with those for beginners, and also those under service conditions.
- (10.) Unsatisfactory method of distributing railway passes.
- (11.) The encouragement of professional shots from other Colonies to the discouragement of our own beginners.
- (12.) Denial by rifle associations of any encouragement to young shots by a judicious system of handicapping.

XI.—PRIZES FOR MUSKETRY.

In the Imperial Service regiments are granted 2s. 6d. for each soldier who fires through his musketry, and 1s. for each recruit so exercised. The total sum thus obtained is distributed throughout the regiment in prizes, for the encouragement of shooting generally, as the Commanding Officer thinks best, but it is directed that *at least one-half* of the total is to be devoted to the encouragement of shooting in *sectional practices*—that is, controlled fire and other means of improving fire-discipline. Even the balance must not be wholly devoted to individual shooting, but is also to include rapid individual fire and moving target practice.

The Committee are strongly of opinion that if such grants were made in New South Wales the annual musketry course would be popularised, and an interesting means of further instruction and competition provided. If a portion of the sums annually granted to Rifle Associations were devoted to this purpose, it is considered that from a military point of view, the result would be out of all proportion greater than that now secured.

XII.—SUGGESTED MILITARY RIFLE MEETING.

As an immediate step towards the encouragement of useful rifle shooting, the Committee suggest that a rifle meeting should be held, of an entirely military character, and arranged by the military authorities.

With a view to avoiding additional railway expenses, this meeting should take place immediately after the encampment at Easter; and, to obviate unnecessary transport and loss of time, somewhere in the vicinity of the selected camping ground, by preference on a Government site. The Committee do not anticipate any difficulty in securing ground suitable for such purpose.

While the date suggested is probably well suited to country troops, it may be that some of those employed in the metropolis will have some difficulty in prolonging their absence from work.

This could be met, if found advisable, by holding a meeting on subsequent and more convenient dates, specially for metropolitan men. The expenses of the latter meeting, at which tentage, rations, and forage would not be required, would be so small as probably to render it self-supporting.

A fatigue party of sufficient strength would be required, which might be furnished by the New South Wales Artillery, to carry out preliminary arrangements (fix targets, tentage, &c.), as also during the meeting to find the necessary picquets and fatigues.

The

The arrangements which obtain at Shoeburyness Rifle Meetings might be taken as a guide in these details.

Discipline should be maintained under regimental and corps administration.
The additional cost of rations and forage would be inconsiderable.

It is believed that the programme submitted could be carried out in two days, and that a variety of interesting and instructive competitions, of a tournament character, could be included for the benefit of men when not actually engaged in shooting.

PROGRAMME SUGGESTED.

No.	Name of Match.	Nature of Fire.	No. of Rounds	Distance in Yards.	Time.	Position.	Nature of Target.
1	Beginners...	Individual deliberate.....	10	400 and 500	1 minute per round.	Lying down	Second-class Musketry target, 6 ft. x 6 ft. bull's eye, &c.
2	Do ...	do do (carbine)	10	400 and 500	do do ...	do	do do
3	French ...	Individual deliberate	6	800	2 minutes...	do	Three standing men.
4	Do ...	do do (carbine)	6	600	do ...	do	do do
5	Roberts ...	Individual rapid.....	7	500	70 seconds..	Kneeling ...	Three kneeling men.
6	Do ...	do do (carbine)	7	500	do ...	Sitting	do do
7	Scouts	Individual	5	Unknown, 800 to 500	4 minutes...	Any military	Kneeling and lying men.
8	Darghai ...	Section deliberate volleys...	6	Unknown, 800 to 600	2 minutes...	Lying down	Three standing men.
9	Ulundi	do rapid volleys.....	7	Unknown, 700 to 400	70 seconds..	Any military	A Company in column.
10	Coomassie..	do attack.....	15	Unknown, 700 to 250	.....	As laid down	Kneeling men disappearing.
11	Duff	do attack mounted ...	15	Unknown, 600 to 200	.....	do	Three kneeling men.
12	Malakand..	Company attack.....	15	Unknown, 800 to 300	.....	do	Disappearing targets.
13	Hutton	Controlled fire mounted ...	15	Unknown, 600 to 200	.....	do	Three kneeling men.
14	Luck	Mounted pistol practice ...	6	25	At gallop ...	.....	One standing man (vitals to count 2, rest 1 point).
15	Burnaby ...	Dismounted pistol practice	12	25	.....	Standing ...	do

Details of Matches.

- No. 1. *Beginners*.—Open to members of the Defence Forces who have not fired through Table B in musketry, or who are 3rd-class shots. To be fired under musketry conditions, 5 rounds each at 400 and 500 yards. Target and scoring as in musketry.
- No. 2. Same name and conditions as No. 1, but for carbine only.
- No. 3. *French*.—This match represents the fire of selected shots on outpost duty, firing at an enemy's patrol, the approximate range having been obtained by the range-finder. Six shots will be fired at about 800 yards, in 2 minutes, at a target representing 3 standing men, from a lying down position. Other conditions as in musketry.
- No. 4. Same name and conditions as No. 3, but for carbine only, and at 600 yards.
- No. 5. *Roberts*.—This match will instruct a soldier to load rapidly and fire as he would have to do against an enemy at decisive ranges. Seven rounds will be fired in 70 seconds, kneeling, at about 500 yards, the target representing 3 kneeling men.
- No. 6. Same name and conditions as No. 5, but for carbine only, and in a sitting position.
- No. 7. *Scouts*.—This match displays the fire of men selected for scouting duty, on account of their aptitude as field shots and in estimating ranges. Five shots will be fired at selected points, the ranges being unknown and between 800 and 500 yards, in 4 minutes, from any military position and at targets representing kneeling and lying men. Other conditions as in musketry.
- No. 8. *Darghai*.—This consists of section deliberate volleys, such as would be employed for the covering fire of Infantry against an enemy in position, at an unknown range. Six volleys will be fired as in musketry, at unknown ranges between 800 and 600 yards, in 2 minutes, at 3 standing men.
- No. 9. *Ulundi*.—Section rapid volleys. These would be employed at any time against an unusually exposed enemy, if within reasonable range. Seven volleys will be fired in 70 seconds at unknown distances between 700 and 400 yards, position as laid down for the distance. The target will be standing men arranged as a Company of Infantry in column.
- No. 10. *Coomassie*.—Section attack—representing the advance of assaulting Infantry within decisive ranges. To be carried out as in musketry; distances unknown and between 700 and 250 yards; targets, kneeling men disappearing, and with 15 rounds per man; teams of 8 men and a commander. There is no time limit, but a certain number of points will be deducted from the score for each appearance of the target.
- No. 11. *Duff*.—In accordance with musketry instruction for Martini Henry rifle, 1894, section 138. Conditions as at National Rifle Association meeting, but 50 points for time, and kneeling men targets.
- No. 12. *Malakand*.—Similar to section attack, except that the Company commences the advance beyond decisive ranges, and it is therefore left to the Company Commander to determine when he is justified in opening fire. Ten rounds to be carried by the men, and five per man by ammunition carriers, who will not start before the first line reach 600 yards range, nature of fire to be at discretion of the commander. Four sections will be in the firing line throughout. Otherwise as for No. 10. Points will be deducted for unnecessary exposure of individuals or part of the command. (It is hoped in future years to include supports, casualties, &c.)
- No. 14. *Luck*.—Mounted pistol practice. Three targets, standing men; three shots to be fired to the right advancing and three to the left returning at these. Distance 25 yards.
- No. 15. *Burnaby*.—Dismounted pistol practice. To run 100 yards, and load and fire 6 rounds with each hand as in musketry instructions.

APPENDIX A.

ACCORDING to Captain Mayne (Infantry Fire Tactics), "there are two methods of allowing men to fire:—

1. *Uncontrolled or independent fire*, in which each man fires at his own convenience and judgment as to range and objective.
2. *Controlled or collective fire*, in which the independency of the fire of the individual man is *controlled and directed* according to the will of their commander.

Controlled fire can only be executed when the men are collected into organised tactical groups . . . as "units of fire," because under an enemy's fire one leader alone cannot control a large number of individual men, although he can a smaller number of organised groups, each under a recognised subordinate leader.

Uncontrolled individual fire is naturally independent fire, and anything *independent* should be avoided in war as much as possible. Practically, it has been found that uncontrolled fire is very pernicious, is conducive to great waste of ammunition, and, what is far worse, to great loss of moral force in the men using it.

1. Uncontrolled fire, when once begun, especially when near the enemy, can neither be regulated nor moderated.

The late Colonel Brackenbury, describing the action of Iscambio, in the Ashantee war, 1873, writes (p. 274):—"For some time all proceeded favourably, but a few shots fired by the enemy upon the left flank immediately drew a most terrific fusillade from the Cape Coast allies, which the officers vainly endeavoured to stop, and in which Abrahms soon joined. Fire of this nature once commenced spreads rapidly, and both Houssas and Kossoos, as well as the others, had soon expended nearly all their ammunition (p. 275). We subsequently heard that as many as fifty of the Cape Coast allies were missing after this action; if so, it is probable that a large number of the casualties among them were due to their own fire."

Captain Bromhead, being ordered to remain in the track of the Ashantis, found it quite impossible to do so. "In the first place, in a two hours' action his men had fired away all their ammunition; and in the next place, in their wretchedly demoralised condition, it would have been impossible to keep them close upon the trail of the enemy."

"In Ashanti, our men in the bush-fighting sometimes fired away 100 to 150 rounds with independent firing, with very small result—that is, they fired away more ammunition individually than in some of the most hotly contested European battles."—(Mayne, p. 416.)

2. Further, in uncontrolled fire there is no check as to what the men are firing at, if they are using the proper sights, or even if they are aiming.

After the action on Majuba Hill, in the Boer war (1881), many of our men's rifles were found to have been sighted for 800 yards, yet the fight really began under 100 yards. The English fired independently throughout.

3. It soon produces in front of stationary men such a thick smoke that the object fired at is completely hidden.
4. It renders any offensive advance almost impossible.
5. It has a very bad effect on the moral spirit of the men, as it tends to increase the excitement by causing an impression that danger is near, and as the ammunition decreases so does the courage of the men engaged.
6. The fire cannot be readily directed from one object to another, and therefore the power of concentration is lost.
7. It is the least terrifying to an enemy, especially at the longer ranges, both because it gives poor results, and also because it is scattered.
8. Its efficacious use at all ranges requires a higher state of discipline and training than is usually possible.

Prince Kraft, in "Letters on Infantry," p. 78, says:—"It seems to me that a line of skirmishers which, during a hot fight, pays so much attention to the shrill whistle of the lieutenant that it ceases firing for a moment, looks towards him, and obeys his sign to rise and rush on, or his order to fire on another object, or with another sight, *proves at once that it has attained to a high degree of fire discipline.*"

9. Once an uncontrolled fire is allowed to begin, especially if the enemy is near at hand, it will continue unchecked until the last round has been spent, from the natural tendency of the men to fire as hard as they can.
10. In very heavy firing neither bugle nor voice can be heard to put a stop to it.

"When once the fire of skirmishers has grown hot it is no longer possible to exercise any influence over it. . . . When the fighting-lines have got so close to each other that each individual skirmisher can see his enemy aiming at him, when losses begin to get heavy, and when certain sections have lost their leaders, then, at first in these sections, but soon along the whole front, a hot fire begins to 'roll,' as those men say who have experienced it. Then all directions with regard to economy in ammunition cease, since no word of command can be heard above the noise of battle. I do not wish to say anything against the courage of our excellent infantry soldiers, but there are always some among them who are but too glad to keep up their pluck by a noise, for no one wants to be killed, and most men feel the need of silencing the fear of death by a shock of some other kind, such as a great noise. At times, when it would be premature to charge in with a cheer, this uproar will continue, in order that the excitement created by it may compensate for the chilling effect of the fear of death."—(Kraft).

11. To practice independent fire at drill is considered by some writers not only needless but positively harmful. At short ranges, in close contact with the enemy, controlled fire will of itself degenerate into rapid uncontrolled fire; the men will no longer pay any attention to orders for control. There is no need to order independent fire, for no prohibition will prevent it.

On the other hand, by the use of *controlled fire*—

1. Not a round of ammunition can be fired without orders.
2. It gives the means of seeing that all the rifles are directed on the same spot, and that the men use the sights ordered, and the fire can be rapidly directed from one object to another.
3. The fire can be stopped to allow the smoke to clear off, and the pauses in the fire can be as long as the commander pleases.
4. The pauses have a quietening effect upon the men when they are getting out of hand.
5. As the fire can be stopped at will on an order, an immediate offensive advance can be conducted.
6. It gives a better result at *all* ranges.
7. It has a very terrifying effect on the enemy when the range is found and the fire is well delivered, as it suddenly pours in at once a searching, concentrated mass of bullets at one spot, while uncontrolled fire cannot be concentrated, and so the bullets fall here and there.
8. It shakes the moral force of the enemy by the sudden loss of a number of men.
9. It requires less discipline and training on the part of the men to get good results.

“All the advantages of volley-firing must not be expected in war. It is none the less certain that the more troops have been trained in time of peace to pay attention to the slightest sign or gesture of their leaders, the greater will be the discipline and power of control in the fight. *It is a matter of peace-training and constant practice.*”

Troops which have not been broken in to it will not possess fire discipline, however much they may have been disciplined in other respects.

These statements are not the outcome of theoretical conjecture. They are based on the experiences of modern warfare, and supported by the musketry regulations of the leading armies of Europe. Prince Kraft, one of the most experienced soldiers of the present day, says (p. 74):—“I have very often observed how in battle, in the presence of danger, troops which are not properly instructed do not aim—they do not even shoot—they simply make a noise. Even before I had ever seen an action, men with experience of war assured me that it was a proof of a certain standard of training in infantry if, in a hot fight, they put their rifles to their shoulders before firing. During the battle of Koeniggratz I witnessed some most irregular fire, which, as the rifles were held vertical, all went up into the air.”

It is quoted as an instance of extraordinary presence of mind that, in one of the actions in the 1870 war, a non-commissioned officer was observed, throughout an attack, to caution his men, from time to time, how to adjust their sights.

“In the battle of the Solferino it is estimated that 8,400,000 shots were fired by the Austrians, occasioning a loss to the French and Sardinian troops of 2,000 killed and 10,000 wounded, so that 4,200 shots were required to kill and wound *one man*, showing an expenditure of 278 lb. of lead for each man killed. In the Franco-German war, however, the Germans appear to have shot much better, for the average number of shots required to kill a Frenchman was reduced to 1,300.”

Can we Australians arrogate to ourselves any superiority over the German or any other nation in respect to fire discipline? If not, by all means let us remember that it will take a good many more than a handful of our crack shots to account for a single company of the enemy.

“At present our men, and non-commissioned officers, and even officers do not know the true necessity for working in groups. It has not been impressed on them by fire experiments, as is done abroad, and the whole duty of fire direction may be said to be almost unknown among us, as the question of infantry fire tactics has been sadly neglected in England. (This was written in 1888.) *Now that such a system has been instituted, let us hope that it will be rigorously insisted on, and then it will be found that wild firing will cease, or, at least, be minimised.*”

“The whole of our old system of musketry (1877) was based on the assumption that every man with good eyesight could be made a good shot, and the individual fire of a single man was accordingly raised to the highest place. The falseness of this hypothesis was amply proved in our late campaigns, where our shooting is reported to have been as bad as it could possibly be. The fact of the matter is that *only very few men are individually good shots*, especially when under fire, and those that are such have *their skill nullified* in the field by the excitement of the fight, and *by not knowing the ranges exactly*, the almost *all-important point* for accurate shooting.”

Lord Wolseley has said that he does not believe 10 per cent. of the soldiers of any army can see at 1,000 yards, much less hit an object at that distance.

“In Afghanistan our troops, as a rule, opened an independent fire at ranges between 700 and 900 yards (as we had not then any such thing as fire discipline in our service), and killed very few for the number of rounds fired.”

“One notable instance was at Del Sarak, when 28,000 rounds were expended on fifty killed, at ranges under 400 yards.”

“Two hundred of the enemy were really killed that day, but 100 were shot down by a *single volley* from one company at about 100 yards range, and another fifty were killed in a cavalry charge. Except the one volley, this was wholly independent firing.”

“In this action there was no fire discipline, control, or direction. Officers were to be seen taking rifles from the men and making practice for themselves. The result was that the whole of the ammunition with the force was fired away, and the troops had to retire back to camp for want of ammunition, followed up by the enemy the whole way.”

“When our troops were shut up in Sherpur, on several occasions when independent fire began, it increased to such a pitch that neither bugle nor voice could be heard, and the men did not stop until they had fired their last round.”

“In Egypt, in 1882, complaints invariably came after every action of the bad shooting of our troops, and why? Because it was independent, unconcentrated fire.”

Six hundred and ninety-three men were engaged in the action on Majuba Hill, every man having received seventy rounds of ammunition. The official statement of the affair makes no reference to the Boer casualties, who, however, acknowledge to have lost *one* man killed, and *five* wounded.

About 1,000 British troops attacked the Boer position at Lang's Nek. The Boer casualties are estimated at sixteen killed, and twenty-four wounded.

At the Ingogo River about 550 men, after fighting from mid-day to 7 p.m., accounted for nine Boers.

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Certainly, in the Zulu war, our men made better shooting ; but no one would claim that the Zulus, however brave, were a well-armed body.

Numerous instances of individual bravery and traditional British pluck have been recorded in every recent war in which our troops have been engaged. May we not accept this as an indication that it is to the system of peace-training adopted in past years, and recently revised, rather than to the men themselves, we should attribute our reverses.

"The independent firing of the French in 1870, and of the Turks in 1877, may be taken to heart by all as a warning of how not to act."

Let us see then what our regulations say on this all-important subject of fire-discipline—

(Infantry Drill, 1889, p. 338) :—"To ensure that fire is always under control, *independent firing* will be *deferred* as long as possible. The march before the fight, the subsequent rapid advances, and the fatigues of frequent firing, will tax to the utmost the physical strength, endurance, and courage of all concerned. It is, therefore, evident that prompt obedience to orders, and strict fire discipline are of *paramount importance*. These ends can only be obtained by *constant practice during peace*."

(Infantry Drill, 1889, p. 205) :—"The more carefully troops are trained to do during peace what will be required of them in time of war, the more efficient they will prove when they take the field."

(Infantry Drill, 1892, p. 177) :—"No time should be wasted by attention to details which are not of practical use in the field, and the aim of teaching should be to imbue all ranks with a knowledge of the principles upon which movements under fire are conducted."

Signed this 20th day of January, 1898, at Victoria Barracks, Sydney, New South Wales.

MONTAGU W. BAYLY, Lt.-Colonel,	} Members.
Commdg. purely Vol. Regts. and Corps, President.	
M. M. BOAM,	
Capt. and Brevet-Major, D.A.A.G.	
G. L. LEE, Capt.,	
Adjnt., N.S.W. Lancers.	}
J. G. LEGGE, Capt.,	
Adjnt., 2nd Inft. Regt.	
G. J. GRIEVE, Lieut.,	}
Adjnt., 6th Regt.	

sl.